VITAL THERAPIES INC
Form S-4/A
February 14, 2019
Table of Contents

As filed with the Securities and Exchange Commission on February 14, 2019

Registration No. 333-229510

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Amendment No. 1

to

Form S-4

REGISTRATION STATEMENT

UNDER

THE SECURITIES ACT OF 1933

VITAL THERAPIES, INC.

(Exact name of registrant as specified in its charter)

Delaware	2834	56-2358443
(State or other jurisdiction of incorporation or organization)	(Primary Standard Industrial Classification Code Number)	(I.R.S. Employer Identification Number)

15222-B Avenue of Science

San Diego, California 92128

(858) 673-6840

(Address, including zip code, and telephone number, including area code, of registrant s principal executive offices)

Dr. Duane D. Nash

Chief Executive Officer and President

Vital Therapies, Inc.

15222-B Avenue of Science

San Diego, California 92128

(858) 673-6840

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

Mike Hird	**John M. Dunn**	**Thomas Strassner**
Pillsbury Winthrop Shaw Pittman LLP	**General Counsel**	**Dentons Europe LLP**
12255 El Camino Real, Suite 300	**Vital Therapies, Inc.**	**Jungfernturmstr. 2**
San Diego, California 92130	**15222-B Avenue of Science**	**80333 Munich**
(619) 234-5000	**San Diego, California 92128**	**Germany**
	(858) 673-6840	**+49 89 244408 442**
Gabriella Lombardi	**Dr. Daniel Vitt**	**Ilan Katz**
Pillsbury Winthrop Shaw Pittman LLP	**Immunic AG**	**Dentons U.S. LLP**

2550 Hanover Street	**Am Klopferspitz 19**	**1221 Avenue of the Americas**
Palo Alto, California 94304	**82152 Planegg-Martinsried**	**New York, New York 10020**
(650) 233-4500	**Germany**	**(212) 768-6700**

Approximate date of commencement of proposed sale to the public: As soon as practicable after the effective date of this registration statement and the satisfaction or waiver of all other conditions under the Exchange Agreement described herein.

If the securities being registered on this Form are being offered in connection with the formation of a holding company and there is compliance with General Instruction G, check the following box:

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of large accelerated filer, accelerated filer, smaller reporting company, and emerging growth company in Rule 12b-2 of the Exchange Act.

Large accelerated filer	Accelerated filer
Non-accelerated filer	Smaller reporting company
	Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act.

If applicable, place an X in the box to designate the appropriate rule provision relied upon in conducting this transaction:

Exchange Act Rule 13e-4(i) (Cross-Border Issuer Tender Offer)

Exchange Act Rule 14d-1(d) (Cross-Border Third-Party Tender Offer)

The Registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this

registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933, as amended, or until the registration statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.

Table of Contents

The information in this proxy statement/prospectus is not complete and may be changed. These securities may not be sold until the registration statement filed with the Securities and Exchange Commission is effective. This proxy statement/prospectus is not an offer to sell and it is not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED FEBRUARY 14, 2019

PROPOSED TRANSACTION

YOUR VOTE IS VERY IMPORTANT

To the Stockholders of Vital Therapies, Inc.:

Vital Therapies, Inc., or Vital Therapies, Immunic AG, or Immunic, and all of the current shareholders of Immunic entered into an Exchange Agreement dated as of January 6, 2019, or the Exchange Agreement, pursuant to which the Immunic shareholders will contribute, transfer, assign and deliver all of the Immunic shares owned by them, and all of their rights with respect to such Immunic shares, to Vital Therapies in exchange for shares of Vital Therapies common stock, with the result of Immunic becoming a wholly-owned subsidiary of Vital Therapies, which is referred to as the Transaction. Immunic and Vital Therapies believes that following the closing of the Transaction, the company, which will be renamed Immunic, Inc. immediately after the Transaction, will focus on advancing Immunic s pipeline of treatments for chronic inflammatory and autoimmune diseases.

Prior to entry into the Exchange Agreement, all current Immunic shareholders as well as certain of Immunic s executive officers and directors entered into an Investment and Subscription Agreement, or the Subscription Agreement, with Immunic dated as of January 6, 2019, pursuant to which certain Immunic shareholders have agreed, subject to the terms and conditions of such agreement, to invest, prior to the consummation of the Transaction, an aggregate amount of approximately 26.7 million, or net proceeds of approximately $30.3 million based on the current exchange rate, in Immunic by means of an increase of its registered share capital and payments into its capital reserves.

At the closing of the Transaction, each Immunic common share will be exchanged for the right to receive a number of shares of Vital Therapies common stock referred to in this proxy statement/prospectus as the Exchange Ratio. It is currently anticipated that, at the closing of the Transaction, the Exchange Ratio will be approximately 735 shares of Vital Therapies common stock, or Vital Therapies common stock, for each Immunic share. Vital Therapies stockholders will continue to own and hold their existing shares of Vital Therapies common stock. The Exchange Ratio is determined pursuant to a formula in the Exchange Agreement and described in the attached proxy statement/prospectus, and this estimate is subject to adjustment. The Exchange Ratio will be adjusted to account for the reverse stock split described in this proxy statement/prospectus.

Immediately after the Transaction, (a) current Vital Therapies stockholders are expected to own approximately 11% of the company and (b) current Immunic shareholders are expected to own approximately 89% of the company, on a fully-diluted basis, in each case calculated on a pro forma basis after giving effect to (i) the issuance of shares by Immunic immediately prior to the closing of the Transaction pursuant to the terms of the Subscription Agreement, and (ii) the Transaction. These estimates are based on the anticipated Exchange Ratio and are subject to adjustment.

Shares of Vital Therapies common stock are currently listed on The Nasdaq Global Market under the symbol VTL. Immunic intends to file an initial listing application for the company following the closing of the Transaction with The Nasdaq Stock Market. After consummation of the Transaction, Vital Therapies will be renamed Immunic, Inc. and expects to trade on The Nasdaq Stock Market under the symbol IMUX. On February [ ], 2019, the last trading day before the date of this proxy statement/prospectus, the closing sale price of Vital Therapies common stock was $[ ] per share.

Vital Therapies is holding a special meeting of stockholders, or the special meeting, in order to obtain the stockholder approvals necessary to complete the Transaction and related matters. At the special meeting, which will be held at 12255 El Camino Real, Suite 300, San Diego, California 92130, at 9:00 a.m., local time, on Thursday, April 4, 2019, unless postponed or adjourned to a later date, Vital Therapies will ask its stockholders to, among other things:

- approve the issuance of shares of Vital Therapies common stock to Immunic shareholders pursuant to the terms of the Exchange Agreement;
- approve the change in control of Vital Therapies resulting from the Transaction;
- approve an amendment to the amended and restated certificate of incorporation of Vital Therapies changing the Vital Therapies corporate name to Immunic, Inc. ;
- approve an amendment to the amended and restated certificate of incorporation of Vital Therapies effecting a reverse stock split of Vital Therapies issued and outstanding common stock in accordance with a ratio to be determined by the board of directors within a range of 30 to 60 shares (or any number in between) of outstanding Vital Therapies common stock being combined and reclassified into one share of Vital Therapies common stock;
- consider and vote upon an adjournment of the special meeting, if necessary, to solicit additional proxies if there are not sufficient votes in favor of the proposals set forth above; and
- transact such other business as may properly come before the stockholders at the special meeting or any adjournment or postponement thereof.

After careful consideration, the board of directors of Vital Therapies has approved the Exchange Agreement and the proposals described in this proxy statement/prospectus, and the board of directors has determined that it is advisable to consummate the Transaction. Our board of directors recommends that stockholders vote FOR the proposals described in the accompanying proxy statement/prospectus.

More information about Vital Therapies, Immunic and the Transaction is contained in this proxy statement/prospectus. You are urged to read the accompanying proxy statement/prospectus carefully and in its entirety. IN PARTICULAR, YOU SHOULD CAREFULLY CONSIDER THE MATTERS DISCUSSED UNDER RISK FACTORS BEGINNING ON PAGE 33.

We are excited about the opportunities the proposed Transaction brings to Vital Therapies stockholders, and thank you for your consideration and continued support.

Dr. Duane D. Nash

Chief Executive Officer and President

Vital Therapies, Inc.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this proxy statement/prospectus. Any representation to the contrary is a criminal offense.

The accompanying proxy statement/prospectus is dated February [ ], 2019, and is first being mailed to stockholders on or about February [ ], 2019.

Table of Contents

VITAL THERAPIES, INC.

15222-B AVENUE OF SCIENCE

SAN DIEGO, CALIFORNIA 92128

(858) 673-6840

NOTICE OF SPECIAL MEETING OF STOCKHOLDERS

To Be Held On Thursday, April 4, 2019

Time: 9:00 a.m., local time

Date: Thursday, April 4, 2019

Place: 12255 El Camino Real, Suite 300, San Diego, California 92130

Purposes:

1. To approve the issuance of shares of common stock of Vital Therapies, Inc., or Vital Therapies, to shareholders of Immunic AG, or Immunic, pursuant to the terms of the Exchange Agreement between Vital Therapies, Immunic and the Shareholders of Immunic, dated as of January 6, 2019, a copy of which is attached as Annex A and incorporated by reference herein, and is referred to as the Exchange Agreement;

2. To approve the change in control of Vital Therapies resulting from the Transaction contemplated by the Exchange Agreement;

3. To approve an amendment to the amended and restated certificate of incorporation of Vital Therapies changing the Vital Therapies corporate name to Immunic, Inc. in the form attached as Annex B;

4. To approve an amendment to the amended and restated certificate of incorporation of Vital Therapies effecting a reverse stock split of Vital Therapies issued and outstanding common stock within a range of 30 to 60 shares (or any number in between) of outstanding Vital Therapies common stock being combined and reclassified into one share of Vital Therapies common stock in the form attached as Annex C;

5. To consider and vote upon an adjournment of the special meeting, if necessary, to solicit additional proxies if there are not sufficient votes in favor of the proposals set forth above; and

6. To transact such other business as may properly come before the stockholders at the special meeting or any adjournment or postponement thereof.

Record Date: The board of directors of Vital Therapies has fixed February 15, 2019 as the record date for the determination of stockholders entitled to notice of, and to vote at, the special meeting and any adjournment or postponement thereof. Only stockholders of record of shares of Vital Therapies common stock at the close of business on the record date are entitled to notice of, and to vote at, the special meeting. At the close of business on the record date, 42,369,694 shares of common stock of Vital Therapies were outstanding and entitled to vote at the special meeting.

Your vote is important. The affirmative vote of the holders of a majority of the shares of Vital Therapies common stock having voting power present in person or represented by proxy at the special meeting, assuming a quorum is present, is required for approval of Proposals 1, 2 and 5. The affirmative vote of the holders of a majority of the outstanding shares of common stock entitled to vote on the record date for the special meeting is required for approval of Proposals 3 and 4. Each of Proposals 1, 2, 3, and 4 are conditioned upon each other and the approval of each such proposal is a condition to the completion of the Transaction. Therefore, the Transaction cannot be consummated without the approval of Proposals 1, 2, 3 and 4.

Even if you plan to attend the special meeting in person, we request that you sign and return the enclosed proxy to ensure that your shares will be represented at the special meeting if you are unable to attend. You may change or revoke your proxy at any time before it is voted at the special meeting.

Table of Contents

THE BOARD OF DIRECTORS HAS DETERMINED THAT EACH OF THE PROPOSALS OUTLINED ABOVE IS FAIR TO, AND IN THE BEST INTERESTS OF, VITAL THERAPIES AND ITS STOCKHOLDERS AND HAS APPROVED EACH SUCH PROPOSAL. THE BOARD OF DIRECTORS RECOMMENDS THAT STOCKHOLDERS OF VITAL THERAPIES VOTE FOR EACH OF THE PROPOSALS.

By Order of the Board of Directors,

Dr. Duane D. Nash

Chief Executive Officer and President

San Diego, California

February [ ], 2019

Table of Contents

REFERENCES TO ADDITIONAL INFORMATION

This proxy statement/prospectus incorporates important business and financial information about Vital Therapies that has been filed with the Securities and Exchange Commission, or SEC, and that is not included in or delivered with this document. You may obtain this information without charge through the SEC s website (http://*www.sec.gov*) or upon your written or oral request by contacting the secretary of Vital Therapies, Inc., 15222-B Avenue of Science, San Diego, California 92128 or by calling (858) 673-6840.

To ensure timely delivery of these documents, any request should be made no later than March 21, 2019 to receive them before the special meeting.

For additional details about where you can find information about Vital Therapies, please see the section entitled *Where You Can Find More Information* in this proxy statement/prospectus.

Table of Contents

TABLE OF CONTENTS

	Page
QUESTIONS AND ANSWERS ABOUT THE TRANSACTION	1
PROSPECTUS SUMMARY	8
The Companies	8
The Transaction	8
Reasons for the Transaction	9
Interests of the Directors and Executive Officers of Vital Therapies in the Transaction	10
Interests of the Directors and Executive Officers of Immunic in the Transaction	11
Opinion of Financial Advisor to Vital Therapies	12
Management Following the Closing of the Transaction	12
Overview of the Exchange Agreement and Agreements Related to the Exchange Agreement	13
Regulatory Approvals	17
Material U.S. Federal Income Tax Consequences of the Transaction	17
Nasdaq Stock Market Listing	18
Anticipated Accounting Treatment	18
Appraisal Rights	18
Risk Factors	18
SELECTED HISTORICAL AND UNAUDITED PRO FORMA COMBINED FINANCIAL INFORMATION	20
Selected Historical Consolidated Financial Data of Vital Therapies	20
Comparative Historical and Unaudited Pro Forma Per Share Data	22
UNAUDITED PRO FORMA CONDENSED COMBINED FINANCIAL STATEMENTS	23
MARKET PRICE AND DIVIDEND INFORMATION	32
RISK FACTORS	33
Risks Related to the Transaction	33
Risks Related to Vital Therapies	37
Risks Related to Immunic	70
CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS	111
THE SPECIAL MEETING OF STOCKHOLDERS OF VITAL THERAPIES	113
Date, Time and Place	113
Purposes of the Special Meeting	113
Recommendation of the Board of Directors of Vital Therapies	113
Record Date and Voting Power	114
Voting and Revocation of Proxies	114
Required Vote	115
Solicitation of Proxies	116
Other Matters	116
THE TRANSACTION	117
Background of the Transaction	117
Vital Therapies Reasons for the Transaction	125
Opinion of Financial Advisor to Vital Therapies	127
Information Regarding Financial Projections Used for Fairness Opinion Analysis	135
Immunic Reasons for the Transaction	136
Interests of the Directors and Executive Officers of Vital Therapies in the Transaction	137
Interests of the Directors and Executive Officers of Immunic in the Transaction	143

Form of the Transaction 146
Transaction Consideration and Exchange Ratio 146
Stock Options and Warrants 147
Closing Time of the Transaction 148
Regulatory Approvals 148

Table of Contents

	Page
Material German Tax Considerations to Immunic Shareholders Related to the Transaction	148
Material U.S. Federal Income Tax Consequences of the Transaction	149
Material Consequences of Ownership and Disposition of Vital Therapies Common Stock	153
Anticipated Accounting Treatment	156
Nasdaq Stock Market Listing	157
Appraisal Rights	157
THE EXCHANGE AGREEMENT	158
Structure	158
Completion and Effectiveness of the Transaction	158
Transaction Consideration and Exchange Ratio	158
Determination of Vital Therapies Net Cash	160
Vital Therapies Common Stock	161
Fractional Shares	162
Representations and Warranties	162
Covenants; Conduct of Business Pending the Transaction	165
Non-Solicitation	167
Disclosure Documents	169
Meeting of Vital Therapies Stockholders	169
Regulatory Approvals	169
Indemnification and Insurance for Officers and Directors	170
Additional Agreements	170
Nasdaq Stock Market Listing	171
Conditions to the Completion of the Transaction	171
Termination of the Exchange Agreement and Termination Fee	173
Amendment	174
Expenses	174
Directors and Officers of Vital Therapies Following the Transaction	174
Amendments to the Amended and Restated Certificate of Incorporation of Vital Therapies	175
Special Meeting of Vital Therapies Stockholders	175
AGREEMENTS RELATED TO THE TRANSACTION	176
Subscription Agreement	176
Lock-up Agreements	176
MATTERS BEING SUBMITTED TO A VOTE OF THE STOCKHOLDERS OF VITAL THERAPIES	178
Proposal 1: Approval of the Issuance of Common Stock in the Transaction	178
Proposal 2: Approval of the Change of Control Resulting from the Transaction	178
Proposal 3: Approval of Name Change	179
Proposal 4: Approval of the Amendment to the Amended and Restated Certificate of Incorporation of Vital Therapies Effecting the Reverse Stock Split.	179
Proposal 5: Approval of Possible Adjournment of the Special Meeting	186
VITAL THERAPIES BUSINESS	187
IMMUNIC BUSINESS	199
MANAGEMENT S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS OF VITAL THERAPIES	217
MANAGEMENT S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS OF IMMUNIC	232
QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK OF VITAL THERAPIES	241

MANAGEMENT FOLLOWING THE CLOSING OF THE TRANSACTION 242
Executive Officers and Directors 242
Board of Directors of the Company Following the Transaction 245

Table of Contents

	Page
Director Compensation	247
Immunic Executive Compensation	248
Compensation Risk Management	250
Employment Benefits Plans	250
CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS	252
DESCRIPTION OF CAPITAL STOCK	257
PRINCIPAL STOCKHOLDERS OF VITAL THERAPIES	261
PRINCIPAL SHAREHOLDERS OF IMMUNIC	263
LEGAL MATTERS	265
EXPERTS	265
WHERE YOU CAN FIND MORE INFORMATION	265
TRADEMARK NOTICE	266
OTHER MATTERS	266
INDEX TO CONSOLIDATED FINANCIAL STATEMENTS OF VITAL THERAPIES, INC.	F-1
INDEX TO CONSOLIDATED FINANCIAL STATEMENTS OF IMMUNIC AG	F-42
ANNEX A EXCHANGE AGREEMENT	
ANNEX B AMENDMENT TO AMENDED AND RESTATED CERTIFICATE OF INCORPORATION NAME CHANGE	
ANNEX C AMENDMENT TO AMENDED AND RESTATED CERTIFICATE OF INCORPORATION REVERSE STOCK SPLIT	
ANNEX D SUBSCRIPTION AGREEMENT	
ANNEX E OPINION OF FINANCIAL ADVISOR TO VITAL THERAPIES, INC.	

Table of Contents

QUESTIONS AND ANSWERS ABOUT THE TRANSACTION

Except where specifically noted, the following information and all other information contained in this proxy statement/prospectus does not give effect to the proposed reverse stock split described in Proposal 4 in this proxy statement/prospectus.

The following section provides answers to frequently asked questions about the Transaction. This section, however, provides only summary information. For a more complete response to these questions and for additional information, please refer to the cross-referenced sections.

Q: What is the Transaction?

A: Vital Therapies, Inc., or Vital Therapies, and Immunic AG, or Immunic, and all of the current shareholders of Immunic have entered into an Exchange Agreement dated as of January 6, 2019, or the Exchange Agreement. The Exchange Agreement contains the terms and conditions of the proposed business combination of Vital Therapies and Immunic. Under the Exchange Agreement, shareholders of Immunic will exchange all of their outstanding shares of Immunic for shares of Vital Therapies common stock, resulting in Immunic becoming a wholly-owned subsidiary of Vital Therapies. After the completion of the Transaction, Vital Therapies will change its corporate name to Immunic, Inc. as required by the Exchange Agreement. This transaction is referred to as the Transaction.

Immediately prior to the closing of the Transaction, each Immunic preferred share will be converted into one Immunic common share, or an Immunic common share. At the closing of the Transaction, each Immunic common share will be converted into the right to receive a certain number of shares of Vital Therapies common stock, or the Exchange Ratio. It is currently anticipated that, at the closing of the Transaction, the Exchange Ratio will be approximately 735 shares of Vital Therapies common stock, or Vital Therapies common stock, per Immunic common share. The Exchange Ratio will be adjusted to account for the reverse stock split described in this proxy statement/prospectus. Stockholders of Vital Therapies will continue to own and hold their existing shares of Vital Therapies common stock. The Exchange Ratio is determined pursuant to a formula in the Exchange Agreement and described in this proxy statement/prospectus, and this estimate is subject to adjustment.

Immediately after the Transaction, (a) current Vital Therapies stockholders are expected to own approximately 11% of the company and (b) current Immunic shareholders are expected to own approximately 89% of the company, on a fully-diluted basis, in each case calculated on a pro forma basis after giving effect to (i) the issuance of common shares by Immunic immediately prior to the closing of the Transaction pursuant to the terms of the Subscription Agreement, and (ii) the Transaction. These estimates are based on the anticipated Exchange Ratio and are subject to adjustment.

The calculation of the Exchange Ratio, which is described in the sections entitled *The Transaction Transaction Consideration and Exchange Ratio* and *The Exchange Agreement Transaction Consideration and Exchange Ratio*, is complex and circumstances as of the closing of the Transaction may result in an Exchange Ratio that differs from estimates in this proxy statement/prospectus.

Q: What will happen to Vital Therapies if, for any reason, the Transaction does not close?

A: If, for any reason, the Transaction does not close, our board of directors may elect to, among other things, attempt to complete another strategic transaction like the Transaction, attempt to sell or otherwise dispose of the various assets of the company, dissolve and liquidate its assets, or continue to operate the business of Vital Therapies. If Vital Therapies decides to dissolve and liquidate its assets, Vital Therapies would be required to pay all of its debts and

contractual obligations, and to set aside certain reserves for potential future claims, and there can be no assurances as to the amount or timing of available cash left, if any, to distribute to stockholders after paying the debts and other obligations of Vital Therapies and setting aside funds for reserves.

Table of Contents

If Vital Therapies were to continue its business, in addition to raising additional capital to do so, it would likely need to identify, acquire and develop other products or product candidates, as it has no current plans to pursue further development of its ELAD system. If Vital Therapies decided to reestablish its business, it would also need to rebuild its workforce.

Q: Why are the two companies proposing to enter into the Transaction?

A: Following the closing of the Transaction, Vital Therapies and Immunic believe that the company will focus on advancing Immunic s pipeline of treatments for chronic inflammatory and autoimmune diseases. Vital Therapies and Immunic believe that the company will have the following potential advantages:

- the company after the Transaction will be a publicly traded, clinical-stage biotechnology company focused on developing best-in-class therapies for the treatment of chronic inflammatory and autoimmune diseases;
- the company after the Transaction will be led by an experienced senior management team from Immunic and a board of directors of five members, with four members designated by Immunic and one member designated by Vital Therapies; and
- proceeds from the concurrent financing would provide funds for the company s research and development and operating activities after the closing of the Transaction.

Q: Why am I receiving this proxy statement/prospectus?

A: You are receiving this proxy statement/prospectus because you have been identified as a stockholder of Vital Therapies as of the record date, and you are entitled to vote at the special meeting of stockholders to approve the matters set forth above. This document serves as:

- a proxy statement of Vital Therapies used to solicit proxies for its special meeting of stockholders to vote on the matters set forth above; and
- a prospectus of Vital Therapies used to offer shares of Vital Therapies common stock in exchange for Immunic common shares in the Transaction.

Q: What approvals by the stockholders of Vital Therapies are required to consummate the Transaction?

A: To consummate the Transaction, stockholders of Vital Therapies must approve the proposal numbers 1 through 4. Pursuant to the terms of the Exchange Agreement, Vital Therapies is also requesting that stockholders approve proposal number 5 below, which is, collectively with proposal numbers 1 through 5, referred to as the Proposals. The Proposals include the following matters:

1.

the issuance of shares of common stock of Vital Therapies to shareholders of Immunic pursuant to the terms of the Exchange Agreement between Vital Therapies, Immunic and the Shareholders of Immunic, dated as of January 6, 2019, a copy of which is attached as *Annex A*, which is referred to as the Exchange Agreement;

2. the change in control of Vital Therapies resulting from the Transaction contemplated by the Exchange Agreement;

3. an amendment to the amended and restated certificate of incorporation of Vital Therapies changing the Vital Therapies corporate name to Immunic, Inc. in the form attached as *Annex B*;

4. an amendment to the amended and restated certificate of incorporation of Vital Therapies effecting a reverse stock split of Vital Therapies issued and outstanding common stock in accordance with a ratio to be determined by the board of directors within a range of 30 to 60 shares (or any number in between) of outstanding Vital Therapies common stock being combined and reclassified into one share of Vital Therapies common stock; and

Table of Contents

5. to consider and vote on an adjournment of the special meeting, if necessary, to solicit additional proxies if there are not sufficient votes in favor of the proposals set forth above.

The presence, in person or represented by proxy, at the special meeting of the holders of a majority of the shares of Vital Therapies common stock outstanding and entitled to vote at the special meeting is necessary to constitute a quorum at the meeting. Abstentions and broker non-votes will be counted towards a quorum. The affirmative vote of the holders of a majority of the shares of Vital Therapies common stock having voting power present in person or represented by proxy at the special meeting, assuming a quorum is present, is required for approval of Proposals 1, 2 and 5. The affirmative vote of the holders of a majority of the outstanding shares of common stock entitled to vote on the record date for the special meeting is required for approval of Proposals 3 and 4. Each of Proposals 1, 2, 3, and 4 are conditioned upon each other and the approval of each such proposal is a condition to the completion of the Transaction. Therefore, the Transaction cannot be consummated without the approval of Proposals 1, 2, 3 and 4.

Votes will be counted by the inspector of election appointed for the meeting, who will separately count FOR and AGAINST votes, abstentions and broker non-votes. Abstentions will be counted towards the vote total for each proposal and will have the same effect as AGAINST votes for Proposals 3 and 4, but will have no effect on Proposals 1, 2 and 5. Similarly, broker non-votes will have the same effect as AGAINST votes for Proposals 3 and 4, but will have no effect on Proposals 1, 2 and 5.

As of January 15, 2019, the directors and executive officers of Vital Therapies owned or controlled less than 1% of the outstanding shares of Vital Therapies common stock entitled to vote at the special meeting.

The adoption of the Exchange Agreement and the approval of the Transaction and related transactions has been approved by the shareholders of Immunic.

For a more complete description of the closing conditions under the Exchange Agreement, you are urged to read the section entitled *The Exchange Agreement Conditions to the Completion of the Transaction* in this proxy statement/prospectus.

Q: What will Immunic shareholders receive in the Transaction?

A: As a result of the Transaction, Immunic shareholders will become entitled to receive shares of Vital Therapies common stock equal to approximately 89% of the outstanding common stock of the company on a pro forma basis, assuming that Immunic closes its concurrent financing immediately prior to the closing of the Transaction. This is subject to adjustment based on the Exchange Agreement.

For a more complete description of what Immunic shareholders will receive in the Transaction, please see the sections entitled *Market Price and Dividend Information*, *The Transaction Transaction Consideration and Exchange Ratio* and *The Exchange Agreement Transaction Consideration and Exchange Ratio* in this proxy statement/prospectus.

Q: Who will be the directors of Vital Therapies following the Transaction?

A: Immediately following the Transaction, the board of directors of Vital Therapies (which will be renamed Immunic, Inc.) is expected to consist of five members, including four members of the current Immunic board, Dr. Daniel Vitt, Chief Executive Officer of Immunic, Dr. Jörg Neermann, Life Science Partners, Dr. Vincent Ossipow, Omega Funds and Jan van den Bossche, Fund+, and Dr. Duane Nash, Chief Executive Officer, President and a director of Vital Therapies.

Table of Contents

Q: Who will be the executive officers of Vital Therapies immediately following the Transaction?

A: Immediately following the Transaction, the executive management of Vital Therapies (which will be renamed Immunic, Inc.) is expected to be composed of the members of the Immunic executive management team prior to the Transaction, as set forth below:

Name	Title
Dr. Daniel Vitt	President and Chief Executive Officer
Dr. Manfred Gröppel	Chief Operating Officer
Dr. Andreas Muehler	Chief Medical Officer
Dr. Hella Kohlhof	Chief Science Officer

Q: As a stockholder of Vital Therapies, how does the board of directors recommend that I vote?

A: After careful consideration, the board of directors of Vital Therapies recommends that stockholders vote FOR all of the Proposals.

Q: What risks should I consider in deciding whether to vote in favor of the Transaction?

A: You should carefully review the section of this proxy statement/prospectus entitled *Risk Factors* which sets forth certain risks and uncertainties related to the Transaction, risks and uncertainties to which the company s business following the closing of the Transaction will be subject, and risks and uncertainties to which each of Vital Therapies and Immunic, as an independent company, is subject.

Q: When do you expect the Transaction to be consummated?

A: The Transaction is anticipated to occur as early as the first half of April of 2019 after the special meeting of stockholders of Vital Therapies to be held on April 4, 2019, but the exact timing cannot be predicted. For more information, please see the section entitled *The Exchange Agreement Conditions to the Completion of the Transaction* in this proxy statement/prospectus.

Q: What do I need to do now?

A: Vital Therapies urges you to read this proxy statement/prospectus carefully, including its annexes, and to consider how the Transaction affects you.

If you are a stockholder of record, you may vote in one of the following ways:

You may vote in person. If you plan to attend the special meeting, you may vote by delivering your completed proxy card in person or by completing and submitting a ballot, which will be provided at the special meeting.

You may vote by mail. Complete, sign and date the proxy card that accompanies this proxy statement and return it promptly in the postage-prepaid envelope provided (if you received

printed proxy materials). Your completed, signed and dated proxy card must be received prior to the special meeting.

You may vote by telephone. To vote over the telephone, dial toll-free 1-800-579-1639 using a touch-tone telephone and follow the recorded instructions (have your Notice of Internet Availability or proxy card in hand when you call). You will be asked to provide the company number and control number from your Notice of Internet Availability or proxy card. Telephone voting is available 24 hours a day, 7 days a week, until 11:59 p.m., Eastern Time, on April 3, 2019.

You may vote via the Internet. To vote via the Internet, go to www.proxyvote.com to complete an electronic proxy card (have your Notice of Internet Availability or proxy card in hand when you visit

Table of Contents

the website). You will be asked to provide the control number from your Notice of Internet Availability or proxy card. Internet voting is available 24 hours a day, 7 days a week, until 11:59 p.m., Eastern Time, on April 3, 2019.

If you are a beneficial owner of shares held of record by a broker, bank or other nominee, you will receive voting instructions from your broker, bank or other nominee. You must follow the voting instructions provided by your broker, bank or other nominee in order to instruct your broker, bank or other nominee on how to vote your shares. Beneficial owners of shares should generally be able to vote by returning the voting instruction card, or by telephone or via the Internet. However, the availability of telephone or Internet voting will depend on the voting process of your broker, bank, or other nominee. **If you are a beneficial owner, you may *not* vote your shares in person at the special meeting unless you obtain a legal proxy from your broker, bank or other nominee.**

Q: What happens if I do not return a proxy card or otherwise provide proxy instructions, as applicable?

A: The failure to return your proxy card or otherwise provide proxy instructions will reduce the aggregate number of votes required to approve Proposals 1, 2 and 5 and will have the same effect as voting against Proposals 3 and 4. Further, your shares will not be counted for purposes of determining whether a quorum is present at the special meeting.

Q: May I vote in person at the special meeting of stockholders?

A: If your shares of common stock are registered directly in your name with our transfer agent, you are considered to be the stockholder of record with respect to those shares, and the proxy materials and proxy card are being sent directly to you by Vital Therapies. If you are a stockholder of record, you may attend the special meeting of stockholders and vote your shares in person. Even if you plan to attend the special meeting in person, Vital Therapies requests that you sign and return the enclosed proxy card to ensure that your shares will be represented at the special meeting if you are unable to attend.

If your shares of common stock are held in a brokerage account or by another nominee, you are considered the beneficial owner of shares held in street name, and the proxy materials are being forwarded to you by your broker or other nominee together with a voting instruction form. As the beneficial owner, you are also invited to attend the special meeting of stockholders. Because a beneficial owner is not the stockholder of record, you may not vote these shares in person at the special meeting unless you obtain a legal proxy from the broker, trustee or nominee that holds your shares, giving you the right to vote the shares at the special meeting.

Q: When and where is the special meeting of stockholders being held?

A: The special meeting of stockholders will be held at 12255 El Camino Real, Suite 300, San Diego, California 92130, at 9:00 a.m., local time, on Thursday, April 4, 2019. Subject to space availability, all stockholders as of the record date, or their duly appointed proxies, may attend the meeting. Since seating is limited, admission to the meeting will be on a first-come, first-served basis.

Q: If my shares are held in street name by my broker, will my broker vote my shares for me?

A: Unless your broker has discretionary authority to vote on certain matters, your broker will not be able to vote your shares of common stock on matters requiring discretionary authority without instructions from you.

If you do not give instructions to your broker, your broker can vote your shares with respect to discretionary items but not with respect to non-discretionary items. Discretionary items are proposals considered routine under the rules

applicable to brokers on which your broker may vote shares held in street name in the absence of your voting instructions. On non-discretionary items for which you do not give your broker instructions, the

Table of Contents

shares will be treated as broker non-votes. It is anticipated that Proposals 1 and 2 will be non-discretionary items. To make sure that your vote is counted, you should instruct your broker to vote your shares, following the procedures provided by your broker.

Q: Can I change my vote or revoke my proxy?

A: If you are a stockholder of record, you can change your vote or revoke your proxy at any time before the special meeting by:

- entering a new vote by Internet or telephone (until the applicable deadline for each method as set forth above);
- returning a later-dated proxy card (which automatically revokes the earlier proxy);
- providing a written notice of revocation to our corporate secretary at Vital Therapies, Inc., 15222-B Avenue of Science, San Diego, California 92128, Attn: Corporate Secretary; or
- attending the special meeting and voting in person (attendance at the special meeting will not cause your previously granted proxy to be revoked unless you specifically so request).

Q: Who is paying for this proxy solicitation?

A: Vital Therapies and Immunic will share equally the cost of printing and filing of this proxy statement/prospectus and the proxy card. Arrangements will also be made with brokerage firms and other custodians, nominees and fiduciaries who are record holders of Vital Therapies common stock for the forwarding of solicitation materials to the beneficial owners of Vital Therapies common stock. Vital Therapies will reimburse these brokers, custodians, nominees and fiduciaries for the reasonable out-of-pocket expenses they incur in connection with the forwarding of solicitation materials. Vital Therapies has retained Advantage Proxy, Inc. to assist it in soliciting proxies using the means referred to above. Vital Therapies will pay the fees of Advantage Proxy, Inc., which Vital Therapies expects to be approximately $10,000, plus reimbursement of out-of-pocket expenses.

Q: What are the material U.S. federal income tax consequences of the reverse stock split to stockholders?

A: The reverse stock split described in Proposal 4 should constitute a recapitalization for U.S. federal income tax purposes. As a result, a Vital Therapies U.S. Holder (as described in more detail in the section entitled *Matters Being Submitted to a Vote of the Stockholders of Vital Therapies Proposal 4: Approval of the Amendment to the Amended and Restated Certificate of Incorporation of Vital Therapies Effecting the Reverse Stock Split Material U.S. Federal Income Tax Consequences of the Reverse Stock Split*) of Vital Therapies common stock generally should not recognize gain or loss upon such reverse stock split, except with respect to cash received in lieu of a fractional share of Vital Therapies common stock, as discussed below in the section entitled *Matters Being Submitted to a Vote of the Stockholders of Vital Therapies Proposal 4: Approval of the Amendment to the Amended and Restated Certificate of Incorporation of Vital Therapies Effecting the Reverse Stock Split Material U.S. Federal Income Tax Consequences of the Reverse Stock Split Cash in Lieu of Fractional Shares*. A Vital Therapies U.S. Holder s aggregate tax basis in the shares of Vital Therapies common stock received pursuant to such reverse stock split should equal the aggregate tax

basis of the shares of the Vital Therapies common stock surrendered (excluding any portion of such basis that is allocated to any fractional share of Vital Therapies common stock), and such Vital Therapies U.S. Holder s holding period in the shares of Vital Therapies common stock received should include the holding period in the shares of Vital Therapies common stock surrendered. Treasury Regulations provide detailed rules for allocating the tax basis and holding period of the shares of Vital Therapies common stock surrendered to the shares of Vital Therapies common stock received in a recapitalization pursuant to such reverse stock split. Vital Therapies U.S. Holders of shares of Vital Therapies common stock acquired on different dates and at different prices should consult their tax advisors regarding the allocation of the tax basis and holding period of such shares. For more information, please see the section entitled *Matters Being Submitted to a Vote of the Stockholders of Vital Therapies Proposal 4:*

Table of Contents

Approval of the Amendment to the Amended and Restated Certificate of Incorporation of Vital Therapies Effecting the Reverse Stock Split Material U.S. Federal Income Tax Consequences of the Reverse Stock Split.

Q: Who can help answer my questions?

A: If you are a stockholder of Vital Therapies and would like additional copies of this proxy statement/prospectus without charge or if you have questions about the Transaction, including the procedures for voting your shares, you should contact:

Advantage Proxy, Inc.

Telephone: 1-877-870-8565 (toll free); 1-206-870-8565 (collect)

Email: ksmith@advantageproxy.com

Table of Contents

PROSPECTUS SUMMARY

This summary highlights selected information from this proxy statement/prospectus and may not contain all the information that is important to you. To better understand the Transaction, the proposals being considered at the special meeting, you should read this entire proxy statement/prospectus carefully, including the Exchange Agreement and the other annexes to which you are referred herein. For more information, please see the section entitled Where You Can Find More Information in this proxy statement/prospectus. Except where specifically noted, the following information and all other information contained in this proxy statement/prospectus does not give effect to the proposed reverse stock split described in Proposal 4, beginning on page 179 of this proxy statement/prospectus.

The Companies

Vital Therapies, Inc.

15222-B Avenue of Science

San Diego, California 92128

(858) 673-6840

Vital Therapies, Inc. is a biotherapeutic company that has been developing a cell-based therapy targeting the treatment of acute forms of liver failure. The company s ELAD System is an extracorporeal human allogeneic cellular liver therapy that was in phase 3 clinical trials through late 2018. In September 2018, Vital Therapies announced that its phase 3 clinical trial did not achieve its primary or secondary endpoints and that further development of ELAD had been halted. In October 2018, the company announced that it had retained Ladenburg Thalmann & Co. Inc. as its strategic financial advisor to assist in an exploration of strategic opportunities for enhancing stockholder value. In addition to the Transaction, Vital Therapies is exploring selling assets, including those relating to ELAD, and options to reduce the amount of space it leases in order to increase its cash balance and reduce expenses.

Immunic AG

Am Klopferspitz 19

82152 Planegg-Martinsried

Germany

Immunic is a specialist in selective oral drugs in immunology and is focused on developing novel oral therapies with best-in-class potential for chronic inflammatory and autoimmune diseases. Immunic s three development programs target inflammatory bowel diseases, multiple sclerosis, and psoriasis and include orally available, small molecule inhibitors of DHODH (IMU-838 program), an inverse agonist of RORgt (IMU-935 program), and IMU-856 (targeting improvement in intestinal barrier function). Immunic s lead development program, IMU-838 is currently in phase 2 clinical development for ulcerative colitis, with additional phase 2 trials in Crohn s disease, and multiple sclerosis, and an investigator- initiated proof of concept study in primary sclerosing cholangitis planned for 2019.

The Transaction (see page 117)

If the Transaction is completed, each common share of Immunic will be exchanged for a number of shares of Vital Therapies common stock, or the Exchange Ratio. Based on the valuations specified in the Exchange Agreement, which are subject to adjustment, and the estimated number of common shares of Immunic expected to be outstanding at the closing of the Transaction, it is currently anticipated that, at the closing of the Transaction, the Exchange Ratio will be approximately 735 shares of Vital Therapies common stock per

Table of Contents

Immunic common share. The Exchange Ratio will be adjusted to account for the reverse stock split described in this proxy statement/prospectus. Based on the estimates set forth above, following the completion of the Transaction, (a) current Vital Therapies stockholders are expected to own approximately 11% of the common stock of the company and (b) Immunic shareholders are expected to own approximately 89% of the common stock of the company, on a fully-diluted basis (including shares issued in Immunic s concurrent financing), assuming that Immunic closes its concurrent financing immediately prior to the effective time of the Transaction.

The Exchange Ratio is determined pursuant to a formula in the Exchange Agreement and described in this proxy statement/prospectus and these estimates are subject to adjustment.

Each share of Vital Therapies common stock issued and outstanding at the time of the Transaction will remain issued and outstanding and those shares will be unaffected by the Transaction. Vital Therapies warrants that are unexercised immediately prior to the effective time of the Transaction will remain outstanding. Vital Therapies stock options that are not exercised prior to the effective time of the Transaction will be cancelled and terminated upon the effectiveness of the Transaction to the extent permitted pursuant to the applicable option plan, without any right to receive any consideration. Please see *The Transaction Stock Options and Warrants* beginning on page 147.

For a more complete description of the Exchange Ratio, please see the sections entitled *The Transaction Transaction Consideration and Exchange Ratio* beginning on page 146 and *The Exchange Agreement Transaction Consideration and Exchange Ratio* beginning on page 158.

The Transaction will be completed as promptly as practicable after all of the conditions to completion of the Transaction are satisfied or waived, including the approval of the stockholders of Vital Therapies. Vital Therapies and Immunic are working to complete the Transaction as quickly as practicable. However, Vital Therapies and Immunic cannot predict the exact timing of the completion of the Transaction because it is subject to various conditions. After completion of the Transaction, assuming Vital Therapies receives the required stockholder approval of Proposal 2, the company will be renamed Immunic, Inc.

Reasons for the Transaction (see pages 125 and 136)

Following the Transaction, the company will focus on Immunic s three development programs which target inflammatory bowel diseases, multiple sclerosis, and psoriasis and include orally available, small molecule inhibitors of DHODH (IMU-838 program), an inverse agonist of RORgt (IMU-935 program), and IMU-856 (targeting improvement in intestinal barrier function). Vital Therapies and Immunic believe that the company will have the following potential advantages:

- the company, after the Transaction, will be a publicly traded, clinical-stage biotechnology company focused on developing what it believes can be best-in-class therapies for the treatment of chronic inflammatory and autoimmune diseases;

- the company, after the Transaction, will be led by an experienced senior management team from Immunic and a board of directors of five members, with four members designated by Immunic and one member from Vital Therapies; and

proceeds from the concurrent financing would provide funds for the company s research and development and operating activities after the closing of the Transaction.

Each of the board of directors of Vital Therapies and Immunic also considered other reasons for the Transaction, as described herein in this proxy statement/prospectus.

Table of Contents

For example, Vital Therapies board of directors considered, among other things:

- the consequences of the disappointing results from the Phase III clinical trial of Vital Therapies ELAD System, and the likelihood that the resulting circumstances for Vital Therapies would not change for the benefit of the stockholders of Vital Therapies in the foreseeable future on a stand-alone basis;

- the strategic alternatives of Vital Therapies to the Transaction, including potential transactions that could have resulted from discussions that management and representatives of Ladenburg Thalmann conducted with other potential strategic partners;

- the current market conditions, and Vital Therapies current liquidity position, its depressed stock price and continuing net operating losses;

- the risks associated with, and the uncertain value, timing and costs to stockholders of, liquidating Vital Therapies or effecting a sale of all or some of its assets and thereafter distributing the proceeds to its stockholders;

- the risks of continuing to operate Vital Therapies on a stand-alone basis, including the need to rebuild the company s product candidate development programs, infrastructure and management to continue its operations;

- Vital Therapies management s belief that it would be difficult to obtain additional equity or debt financing on acceptable terms, if at all;

- the opportunity as a result of the Transaction for Vital Therapies stockholders to participate in the potential value that may result from advancing the Immunic pipeline of treatments for chronic inflammatory and autoimmune diseases and the potential increase in value of the company following the closing of the Transaction;

- the terms and conditions of the draft Exchange Agreement and associated transactions, as well as the safeguards and protective provisions included therein intended to mitigate risks; and

- the risk that Immunic is not able to successfully execute its business plan and commercialize its product candidates on the planned timeline or at all.

In addition, Immunic s board of directors approved the Transaction based on a number of factors, including the following:

Immunic s need for capital to support the development, regulatory and commercialization activities for its current product candidates and product candidates that may be acquired in the future and the potential to access public market capital, including sources of capital from a broader range of investors than it could otherwise obtain if it continued to operate as a privately-held company;

the expectation that the Transaction would be a more time-and cost-effective means to access capital than other options considered;

the potential to provide its current shareholders with greater liquidity by owning stock in a public Nasdaq-listed company; and

the fact that shares of Vital Therapies common stock issued to Immunic shareholders will be registered pursuant to a registration statement on Form S-4 by Vital Therapies and will become freely tradable for Immunic s shareholders who are not affiliates of Immunic upon the expiration of the lock-up agreements described herein.

Interests of the Directors and Executive Officers of Vital Therapies in the Transaction (see page 137)

As of January 15, 2019, the directors and executive officers of Vital Therapies owned or controlled less than 1% of the outstanding shares of Vital Therapies common stock.

Table of Contents

In considering the recommendation of the board of directors that the stockholders vote to approve Proposal 2, stockholders should be aware that our current and former directors and executive officers have interests in the Transaction that are different from, or in addition to, the interests of stockholders generally. Interests of these persons may be different from or in addition to the interests of stockholders for the following reasons, among others:

- accelerated vesting of stock options held by our current non-employee directors simultaneously with the closing of the Transaction;
- cancellation of stock options held by our current and former executive officers and grant of restricted stock units, or RSUs, in exchange therefor;
- the entitlement of our executive officers to receive payments and benefits (including accelerated vesting of the RSUs) under their respective Change of Control and Severance Agreements in connection with an involuntary termination of employment by Vital Therapies other than for cause or a resignation from employment by the executive without good reason (as such terms are defined in the applicable agreements) during the period beginning six months prior to, and ending on the date that is 12 months following, the closing of the Transaction, or the Change of Control Period; and
- continued indemnification and directors and officers liability insurance to be provided by Vital Therapies.

These interests are discussed in more detail in the section entitled *The Transaction Interests of the Directors and Executive Officers of Vital Therapies in the Transaction* beginning on page 137 of this proxy statement/prospectus. The members of the board of directors were aware of the different or additional interests described in such section and considered these interests, among other matters, in evaluating and negotiating the Exchange Agreement and the Transaction, and in recommending to our stockholders that the Transaction be approved.

Interests of the Directors and Executive Officers of Immunic in the Transaction (see page 143)

Vital Therapies stockholders should be aware that certain executive officers and directors of Immunic have interests in the Transaction that may be different from the interests of stockholders of Vital Therapies.

Continued Service with Company

The executive officers and certain directors of Immunic are expected to become executive officers and directors of Vital Therapies (to be renamed Immunic, Inc.) after the closing of the Transaction.

Equity Ownership

Certain of Immunic s executive officers and directors have entered into exit bonus agreements that provide such executive officers and directors with the right to receive Immunic common shares immediately prior to the closing of the Transaction, which common shares will be exchanged for a number of shares of Vital Therapies common stock as determined pursuant to the Exchange Ratio described in more detail below.

Immunic Virtual Stock Option Plan

Immunic has a Virtual Stock Option Program for Members of the Supervisory Board dated August 26, 2017, or the Supervisory Board VSOP, which provides for the grant of up to 1,840 virtual options to certain members of Immunic s supervisory board as beneficiaries. The virtual options under the Supervisory Board VSOP are modeled as phantom stock options: the beneficiaries do not acquire the right to acquire shares in Immunic at a predetermined price in the event that the option is exercised; instead, the beneficiary receives a direct cash payment (after deduction of taxes and charges) in an amount equal to the return the beneficiary would have

Table of Contents

received had the beneficiary sold shares in Immunic. Virtual stock options under the Supervisory Board VSOP are granted and allocated at the Immunic general shareholders meeting. The terms of the virtual options are set forth in separate grant letters with each beneficiary.

The virtual options are exercised automatically in case of an Immunic exit event. An exit event comprises, among other things, a direct or indirect initial public offering of Immunic s shares and the sale and transfer of at least 50% of Immunic s shares; the Transaction, upon its closing, constitutes such an exit event. The payment upon an exit event is calculated by multiplying the number of virtual options with the value of an Immunic common share at the time of the exit event.

Immunic has granted a total of 460 virtual options to Immunic s supervisory board member Dr. Thomas Taapken. Immunic has also granted a total of 655 virtual options to Dr. Jörg Neermann; however, Dr. Neermann is in the process of confirming whether he is permitted to accept these virtual options.

As of January 15, 2019, directors and the executive officers of Immunic owned or controlled 12.9% of the outstanding common and preferred shares of Immunic.

Opinion of Financial Advisor to Vital Therapies (see page 127)

On January 4, 2019, Ladenburg Thalmann & Co. Inc., or Ladenburg Thalmann, financial advisor to Vital Therapies, rendered its oral opinion, subsequently confirmed by delivery of a written opinion dated January 4, 2019, to the Vital Therapies board of directors, that, as of the date of such opinion, and based upon the various assumptions, qualifications and limitations set forth therein, that the Exchange Ratio was fair, from a financial point of view, to the stockholders of Vital Therapies.

The full text of the written opinion of Ladenburg Thalmann, dated January 4, 2019, or the Opinion, is attached as Annex E to this proxy statement/prospectus and is incorporated by reference. Vital Therapies encourages its stockholders to read the Opinion in its entirety for the assumptions made, procedures followed, other matters considered and limits of the review by Ladenburg Thalmann. The summary of the written opinion of Ladenburg Thalmann set forth elsewhere in the proxy statement/prospectus is qualified by reference to the full text of the Opinion. Ladenburg Thalmann provided its Opinion for the sole benefit and use of the board of directors of Vital Therapies in its consideration of the Transaction. Ladenburg Thalmann s Opinion is not a recommendation to any stockholder as to how to vote with respect to the proposed Transaction or to take any other action in connection with the Transaction or otherwise.

Management Following the Closing of the Transaction (see page 242)

Immediately following the Transaction, the executive management team of Vital Therapies is expected to be composed of the members of the Immunic executive management team prior to the Transaction, as set forth below:

Name	Title
Dr. Daniel Vitt	Chief Executive Officer and President and Director
Dr. Andreas Muehler	Chief Medical Officer
Dr. Hella Kohlhof	Chief Science Officer
Dr. Manfred Gröppel	Chief Operating Officer and Principal Financial Officer

12

Table of Contents

Overview of the Exchange Agreement and Agreements Related to the Exchange Agreement

Transaction Consideration and Exchange Ratio (see page 158)

Prior to the effective time of the Transaction, all of the Immunic preferred shares will be converted into Immunic common shares. At the effective time of the Transaction, each outstanding common share of Immunic will be exchanged for that number of shares of Vital Therapies common stock as determined pursuant to the Exchange Ratio described in more detail below.

No fractional shares of Vital Therapies common stock will be issued in connection with the Transaction. Instead, all fractional shares of Vital Therapies common stock issuable to each Immunic shareholder will be aggregated and will be rounded up into one full share of Vital Therapies common stock.

The Exchange Ratio is calculated using a formula intended to allocate existing Immunic shareholders (on a fully-diluted basis), a percentage of the company. It is currently anticipated that at the closing of the Transaction, the Exchange Ratio will be approximately 735 shares of Vital Therapies common stock per Immunic common share. The Exchange Ratio will be adjusted to account for the reverse stock split described in this proxy statement/prospectus.

Under the terms of the Exchange Agreement, in addition to certain adjustments to account for the issuance of any additional common shares of Immunic or any shares of common stock of Vital Therapies, as applicable, prior to the consummation of the Transaction, the Exchange Ratio at the closing of the Transaction may be subject to either (i) an upward adjustment to the extent that Vital Therapies net cash at the effective time of the Transaction is less than $4,200,000 (and as a result, Vital Therapies securityholders could own less, and Immunic securityholders could own more, of the company) or (ii) a downward adjustment to the extent that Vital Therapies net cash at the effective time of the Transaction is greater than $5,200,000 (and as a result, Vital Therapies securityholders could own more, and Immunic securityholders could own less, of the company). In addition, if Vital Therapies net cash at the effective time of the Transaction is less than a specified minimum amount of approximately $1,500,000, the Exchange Ratio at the closing of the Transaction may be subject to an additional upward adjustment (and as a result, Vital Therapies securityholders could own less, and Immunic securityholders could own more, of the company). The minimum specified amount will be $1,500,000 if the Transaction closes on or before March 31, 2019, and the minimum cash will be reduced by $5,000 for each day (including any partial day) after March 31, 2019 until the Transaction closes.

Based on the estimates set forth above, following the completion of the Transaction, (a) current Vital Therapies stockholders are expected to own approximately 11% of the common stock of the company and (b) Immunic shareholders are expected to own approximately 89% of the common stock of the company, on a fully-diluted basis (including shares issued in Immunic s concurrent financing), assuming that Immunic closes its concurrent financing immediately prior to the effective time of the Transaction.

The Exchange Ratio formula is the quotient obtained by dividing the number of Immunic transaction shares (defined below) by the Immunic outstanding shares (defined below), where:

Immunic transaction shares is the product determined by multiplying (i) the post-closing Vital Therapies shares by (ii) the Immunic allocation percentage.

Immunic outstanding shares is the total number of common shares and preferred shares of Immunic outstanding immediately prior to the effective time of the Transaction on a fully-diluted and an as-converted to common stock basis, assuming (i) the consummation of the concurrent financing and (ii) the issuance of Immunic common shares in respect of all bonus arrangements or other rights to receive Immunic common shares that will be outstanding immediately prior to the effective time of the Transaction.

Table of Contents

Post-closing Vital Therapies shares is the quotient determined by dividing (i) the Vital Therapies outstanding shares by (ii) the Vital Therapies allocation percentage.

Vital Therapies outstanding shares is the total number of shares of Vital Therapies common stock outstanding immediately prior to the effective time of the Transaction on a fully-diluted and an as-converted to common stock basis, assuming (i) the exercise of each Vital Therapies option outstanding and unexercised immediately prior to the effective time that has an exercise price less than or equal to the then current trading price for shares of Vital Therapies common stock (i.e., in-the-money options), excluding any portion thereof which cannot become vested or exercisable (due, for example, to a termination of service) or will otherwise not be outstanding immediately after the effective time, (ii) the settlement in shares of Vital Therapies common stock of each Vital Therapies RSU outstanding as of the effective time (including Vital Therapies RSUs which were granted to certain of Vital Therapies executive officers, or the Vital Severance RSUs), excluding any portion thereof which cannot become vested or exercisable (due, for example, to a termination of service) or will otherwise not be outstanding immediately after the effective time, and (iii) the exercise of each Vital Therapies warrant outstanding and unexercised immediately prior to the effective time that has an exercise price less than or equal to the then current trading price for shares of Vital Therapies common stock (i.e., in-the-money warrants) and will be outstanding immediately after the effective time. For the avoidance of doubt, shares of Vital Therapies common stock issuable upon the exercise of Vital Therapies options or Vital Therapies warrants that are not in-the-money immediately prior to the effective time will be excluded from the calculation of Vital Therapies outstanding shares.

Immunic allocation percentage is 1.00 minus the Vital Therapies allocation percentage.

Vital Therapies allocation percentage means the quotient determined by dividing (i) the sum of (a) $9,600,000 (or $7,000,000 if Vital Therapies does not have minimum net cash of approximately $1,500,000 at the anticipated closing date), plus (b) $4,700,000, or should the net cash for Vital Therapies be determined pursuant to the Exchange Agreement to be greater than $5,200,000 or less than $4,200,000, then such net cash amount, by (ii) the sum of (y) the product of (A) the Immunic outstanding shares multiplied by the price per Immunic common share for cash investors in the concurrent financing based upon the pre-money valuation of Immunic that shall not exceed $85,000,000, minus (B) the aggregate amount (if any) of all payments to be made to any current or former employee, consultant, independent contractor or director of Immunic in connection with the Transaction or the other contemplated transactions the extent in excess of $300,000, plus (z) the amount determined pursuant to clause (i).

For example, the Vital Therapies allocation percentage would be approximately 11% if Vital Therapies net cash is $4,700,000, the product of the Immunic outstanding shares multiplied by the price per Immunic common share for cash investors in the concurrent financing is $115,000,000, and Immunic has no obligation to make payments to any current or former employee, consultant, independent contractor or director of Immunic in connection with the Transaction or the other contemplated transactions in excess of $300,000.

Treatment of Vital Therapies Stock Options (see page 147)

Vital Therapies stock options that remain unexercised as of the effective time will be cancelled and terminated to the extent permitted pursuant to the applicable plan, without any right to receive any consideration. Warrants to purchase shares of Vital Therapies common stock that are outstanding immediately prior to the effective time of the Transaction will remain outstanding following the effective time of the Transaction.

14

Table of Contents

Immunic Exit Bonus Agreements (see page 254)

Certain of Immunic s executive officers and directors have entered into exit bonus agreements that provide such executive officers and directors with the right to receive Immunic common shares immediately prior to the closing of the Transaction, which common shares will be exchanged for a number of shares of Vital Therapies common stock as determined pursuant to the Exchange Ratio.

Immunic Virtual Stock Option Plan (see page 144)

Immunic has a Virtual Stock Option Program for Members of the Supervisory Board and a Virtual Stock Option Program for employees, each of which provides for the grant of up to 1,840 virtual options. The virtual options are modeled as phantom stock options: the beneficiaries do not acquire the right to acquire shares in Immunic at a predetermined price in the event that the option is exercised; instead, the beneficiary receives a direct cash payment (after deduction of taxes and charges) in an amount equal to the return the beneficiary would have received had the beneficiary sold shares in Immunic. Virtual stock options under the Supervisory Board VSOP are granted and allocated at the Immunic general shareholders meeting. The terms of the virtual options are set forth in separate grant letters with each beneficiary.

The virtual options are exercised automatically in case of an Immunic exit event. An exit event comprises, among other things, a direct or indirect initial public offering of Immunic s shares and the sale and transfer of at least 50% of Immunic s shares; the Transaction, upon its closing, constitutes such an exit event. The payment upon an exit event is calculated by multiplying the number of virtual options by the value of an Immunic common share at the time of the exit event.

Conditions to the Completion of the Transaction (see page 171)

To complete the Transaction, Vital Therapies stockholders must approve the Vital Therapies proposals set forth herein. In addition to obtaining such stockholder approval, each of the other closing conditions set forth in the Exchange Agreement must be satisfied or waived.

Non-Solicitation (see page 167)

The Exchange Agreement contains provisions prohibiting Immunic, the securityholders of Immunic and Vital Therapies from seeking a competing transaction, subject to specified exceptions described in the Exchange Agreement. Under these non-solicitation provisions, each of Immunic, the securityholders of Immunic and Vital Therapies has agreed that neither it nor its subsidiaries, nor any of its officers, directors, employees, representatives, affiliates, advisors or agents will directly or indirectly:

solicit, initiate, respond to or take any action to facilitate or encourage any inquiries or the communication, making, submission or announcement of any competing proposal or take any action that could reasonably be expected to lead to a competing proposal;

enter into or participate in any discussions or negotiations with any person with respect to any competing proposal;

furnish any information regarding Immunic or Vital Therapies to any person in connection with, in response to, relating to or for the purpose of assisting with or facilitating a competing proposal;

approve, endorse or recommend any competing proposal, subject to the terms and conditions in the Exchange Agreement;

execute or enter into any letter of intent or similar document or any contract contemplating or otherwise relating to any competing proposal; or

Table of Contents

grant any waiver or release under any confidentiality, standstill or similar agreement (other than to the other party).

Termination of the Exchange Agreement (see page 173)

Either of Immunic or Vital Therapies can terminate the Exchange Agreement under certain specified circumstances, which would prevent the Transaction from being consummated.

Termination Fees (see page 173)

The Exchange Agreement provides that, upon termination of the Exchange Agreement under specified circumstances, Immunic may be required to pay Vital Therapies a termination fee of $2,000,000 and/or up to $275,000 in expense reimbursements, or Vital Therapies may be required to pay Immunic a termination fee of $500,000 and/or up to $275,000 in expense reimbursements.

Subscription Agreement (see page 176)

On January 6, 2019, immediately prior to the execution of the Exchange Agreement, Immunic entered into an investment and subscription agreement, or the Subscription Agreement, with all current shareholders of Immunic, as well as certain of Immunic s executive officers and directors, pursuant to which certain Immunic shareholders made commitments, subject to the closing of the Transaction, to invest an aggregate amount of 26,677,176 (approximately $30 million) in Immunic by means of an increase of its registered share capital and payments into its capital reserves.

Upon the consummation of the Transaction, the Immunic common shares issued pursuant to the Subscription Agreement will automatically be exchanged for a number of shares of Vital Therapies common stock based on the Exchange Ratio.

The use of the proceeds raised pursuant to the Subscription Agreement will be subject to certain limitations set forth in the Subscription Agreement and its exhibits. Other than this, management will have broad discretion as to the use of the proceeds.

Lock-up Agreements (see page 176)

The shareholders of Immunic have agreed to lock-up covenants (and the executive officers and directors of Immunic are required to join in these covenants as a condition to closing), pursuant to which such persons have agreed not to, except in certain circumstances, offer, pledge, sell, contract to sell, sell any option to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, or otherwise transfer or dispose of, any Vital Therapies securities or shares of Vital Therapies common stock, including, as applicable, shares received in the Transaction, until 180 days after the closing date of the Transaction. The Immunic securityholders who have agreed to lock-up agreements owned, as of January 15, 2019, in the aggregate, 100% of the outstanding Immunic common and preferred shares.

Vital Therapies officers and directors are required to execute lock-up agreements prior to the closing of the Transaction, pursuant to which such Vital Therapies officers and directors will agree not to, except in certain circumstances, offer, pledge, sell, contract to sell, sell any option to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, or otherwise transfer or dispose of, any Vital Therapies securities or shares of Vital Therapies common stock, including, as applicable, shares issuable upon exercise of certain warrants and options, until 180 days after the closing date of the Transaction.

16

Table of Contents

Current directors and officers of Vital Therapies are expected to execute lock-up agreements, and as of January 15, 2019, owned, in the aggregate, less than 1% of the outstanding common stock of Vital Therapies entitled to vote at the special meeting.

Regulatory Approvals (see page 148)

In the United States, Vital Therapies must comply with applicable federal and state securities laws and the rules and regulations of The Nasdaq Stock Market in connection with the issuance of shares of Vital Therapies common stock and the filing of this proxy statement/prospectus with the Securities and Exchange Commission. As of the date hereof, the registration statement on Form S-4 of which this proxy statement/prospectus is a part has not become effective.

Material U.S. Federal Income Tax Consequences of the Transaction (see page 149)

Each of Immunic and Vital Therapies intends for, and has agreed to use its commercially reasonable efforts to cause, the Transaction to qualify as an exchange described in Section 351(a) of the Code. Each of Immunic and Vital Therapies has further agreed not to permit or cause any of their respective affiliates or any subsidiaries to take any action, or cause any action to be taken, which would cause the Transaction to fail to qualify as an exchange described in Section 351(a) of the Code. Assuming the Transaction qualifies as an exchange described in Section 351(a) of the Code, in general, and subject to the qualifications and limitations set forth in the section entitled *The Transaction Material U.S. Federal Income Tax Consequences of the Transaction*, the material U.S. federal income tax consequences to Immunic U.S. Holders (as defined herein) should be as follows:

As an exchange described in Section 351(a) of the Code, and subject to the qualifications and assumptions described in this registration statement, the material U.S. federal income tax consequences of the Transaction should be as follows:

- an Immunic U.S. Holder will not recognize gain or loss upon the exchange of Immunic common shares for Vital Therapies common stock pursuant to the Transaction;
- an Immunic U.S. Holder s aggregate tax basis in the shares of Vital Therapies common stock received in the Transaction will equal the shareholder s aggregate tax basis in the shares of Immunic common shares surrendered upon completion of the Transaction; and
- the holding period of the shares of Vital Therapies common stock received by an Immunic U.S. Holder in the Transaction will include the holding period of the shares of Immunic common shares surrendered in exchange therefor.

For purposes of the above discussion of the bases and holding periods for shares of Immunic common shares and Vital Therapies common stock, shareholders who acquired different blocks of Immunic common shares at different times or for different prices must calculate their gains and losses and holding periods separately for each identifiable block of such stock exchanged in the Transaction.

Tax matters are very complicated, and the tax consequences of the Transaction to a particular Immunic shareholder will depend on such shareholder s circumstances. Accordingly, you should consult your tax advisor for a full understanding of the tax consequences of the merger to you, including the applicability and effect of federal, state,

local and non-U.S. income and other tax laws. For more information, please see the section entitled *The Transaction Material U.S. Federal Income Tax Consequences of the Transaction* beginning on page 149 of this proxy statement/prospectus.

The Transaction will not result in any material tax consequences to holders of Vital Therapies common stock.

Table of Contents

Nasdaq Stock Market Listing (see page 157)

Immunic intends to file an initial listing application for the company with The Nasdaq Stock Market. If such application is accepted, Immunic anticipates that the company s common stock will be listed on The Nasdaq Stock Market following the closing of the Transaction under the trading symbol IMUX.

Anticipated Accounting Treatment (see page 156)

The Transaction will be treated by Vital Therapies as a reverse merger under the acquisition method of accounting for business combinations in accordance with accounting principles generally accepted in the United States, or U.S. GAAP. For accounting purposes, Immunic is considered to be acquiring Vital Therapies in the Transaction.

Appraisal Rights (see page 157)

Holders of Vital Therapies common stock are not entitled to appraisal rights in connection with the Transaction.

Risk Factors (see page 33)

Both Vital Therapies and Immunic are subject to various risks associated with their businesses and their industries. In addition, the Transaction, including the possibility that the Transaction may not be completed, poses a number of risks to each company and its respective securityholders, including the following risks:

- the Exchange Ratio is not adjustable based on the market price of Vital Therapies common stock so the Transaction consideration at the closing may have a greater or lesser value than at the time the Exchange Agreement was signed;

- failure to complete the Transaction may result in Vital Therapies or Immunic paying a termination fee to the other party and could harm the common stock price of Vital Therapies and future business and operations of each company;

- if the conditions to the Transaction are not met, the Transaction may not occur;

- the Transaction may be completed even though material adverse changes may result from the announcement of the Transaction, industry-wide changes and other causes;

- some Vital Therapies and Immunic executive officers and directors have interests in the Transaction that are different from yours and that may influence them to support or approve the Transaction without regard to your interests;

- the market price of Vital Therapies common stock following the Transaction may decline as a result of the Transaction;

Vital Therapies and Immunic securityholders will have a reduced ownership and voting interest in, and will exercise less influence over the management of, the company as compared to their current ownership and voting interest in the respective companies following the completion of the Transaction;

during the pendency of the Transaction, Vital Therapies and Immunic may not be able to enter into a business combination with another party at a favorable price because of restrictions in the Exchange Agreement, which could adversely affect their respective businesses;

certain provisions of the Exchange Agreement may discourage third parties from submitting competing proposals, including proposals that may be superior to the arrangements contemplated by the Exchange Agreement; and

Table of Contents

because the lack of a public market for Immunic s capital stock makes it difficult to evaluate the fairness of the Transaction, the shareholders of Immunic may receive consideration in the Transaction that is less than the fair market value of Immunic s capital stock and/or Vital Therapies may pay more than the fair market value of Immunic s capital stock.

These risks and other risks are discussed in greater detail under the section entitled *Risk Factors* in this proxy statement/prospectus. Vital Therapies and Immunic both encourage you to read and consider all of these risks carefully.

Table of Contents

SELECTED HISTORICAL AND UNAUDITED PRO FORMA COMBINED FINANCIAL INFORMATION

Selected Historical Consolidated Financial Data of Vital Therapies

The following summarizes our selected consolidated financial data for the periods and as of the dates indicated. We have derived the consolidated statement of operations data for the years ended December 31, 2017, 2016 and 2015 and the consolidated balance sheet data as of December 31, 2017 and 2016 from our audited consolidated financial statements included elsewhere in this proxy statement/prospectus. We have derived the consolidated statement of operations data for the nine months ended September 30, 2018 and 2017 and the consolidated balance sheet data as of September 30, 2018 from our unaudited condensed consolidated financial statements included elsewhere in this proxy statement/prospectus. The selected statement of operations data for the years ended December 31, 2014 and 2013 and the balance sheet data as of September 30, 2017, and December 31, 2015, 2014 and 2013 are derived from our consolidated financial statements or unaudited interim condensed consolidated financial statements not included in this proxy statement/prospectus. Our unaudited interim condensed consolidated financial statements have been prepared in accordance with U.S. generally accepted accounting principles on the same basis as the annual audited consolidated financial statements and, in the opinion of management, reflect all adjustments, consisting only of normal recurring adjustments, necessary for a fair statement of our financial position as of September 30, 2018 and 2017 and our results of our operations for the nine months ended September 30, 2018 and 2017. The results for the nine months ended September 30, 2018 are not necessarily indicative of results to be expected for the year ended December 31, 2018, any other interim periods or any future period or year. This historical financial data should be read in conjunction with the section entitled *Management s Discussion and Analysis of Financial Condition and Results of Operations of Vital Therapies* and with our audited and unaudited consolidated financial statements and their related notes, which are included elsewhere in this proxy statement/prospectus.

	Nine Months Ended September 30,		For the Year Ended December 31,				
	2018	2017	2017	2016	2015	2014	2013
	(in thousands, except share and per share amounts)						
Consolidated Statement of Operations Data:							
Operating expenses:							
Research and development	$ 24,805	$ 29,151	$ 39,341	$ 30,046	$ 39,118	$ 39,479	$ 21,787
General and administrative	11,054	8,724	13,314	11,220	12,138	10,863	9,615
Severance costs	2,395				863		
Impairment loss	1,219						
Total operating expenses	39,473	37,875	52,655	41,266	52,120	50,342	31,402
Loss from operations	(39,473)	(37,875)	(52,655)	(41,266)	(52,120)	(50,342)	(31,402)
Net loss	(39,011)	(37,490)	(52,078)	(40,969)	(52,023)	(47,667)	(32,718)
	$ (39,011)	$ (37,490)	$ (52,078)	$ (40,969)	$ (52,023)	$ (56,821)	$ (39,085)

Net loss attributable to common stockholders							
Net loss per share attributable to common stockholders, basic and diluted	$ (0.92)	$ (0.96)	$ (1.31)	$ (1.31)	$ (2.07)	$ (3.54)	$ (74.86)
Weighted-average common shares outstanding, basic and diluted	42,369,093	39,054,978	39,859,009	31,387,579	25,152,948	16,054,452	522,102

Table of Contents

	As of September 30,		As of December 31,				
	2018	2017	2017	2016	2015	2014	2013
	(in thousands)						
Consolidated Balance Sheet Data:							
Cash and cash equivalents	$ 17,798	$ 66,391	$ 56,901	$ 59,991	$ 83,416	$ 102,238	$ 38,186
Working capital	13,370	59,726	47,840	55,983	78,433	94,538	36,409
Total assets	19,988	70,358	60,384	64,026	89,081	108,082	46,585
Additional paid-in-capital	349,132	343,351	345,915	302,185	285,098	248,305	58,413
Accumulated deficit	(334,964)	(281,365)	(295,953)	(243,825)	(202,856)	(150,833)	(103,166)
Total stockholders equity (deficit)	14,252	62,078	50,044	58,446	82,325	97,563	(44,657)

Table of Contents

Comparative Historical and Unaudited Pro Forma Per Share Data

The following information does not give effect to the proposed reverse stock split described in Proposal 4, beginning on page 179 in this proxy statement/prospectus.

The information below reflects the historical net loss and book value per share of Vital Therapies common stock and the historical net loss and book value per share of Immunic common and preferred shares in comparison with the unaudited pro forma net loss and book value per share after giving effect to the Transaction on a pro forma basis. The pro forma amounts are presented for illustrative purposes only and are not necessarily indicative of what the financial position, results of operations or per share information of the company would have been if Vital Therapies and Immunic had effected the Transaction as of or for the periods presented.

You should read the information below in conjunction with the audited and unaudited consolidated financial statements of each of Vital Therapies and Immunic included in this proxy statement/prospectus and the related notes and the unaudited pro forma condensed combined financial information and notes related to such financial statements included elsewhere in this proxy statement/prospectus.

	Nine Months Ended September 30, 2018	Year Ended December 31, 2017
Vital Therapies Historical Per Common Share Data:		
Basic and diluted net loss per share	$ (0.92)	$ (1.31)
Book value per share	$ 0.34	$ 1.18
Immunic Historical Per Common Share Data:		
Basic and diluted net loss per share	(16.02)	(26.81)
Book value per share	29.92	18.02
Vital Therapies and Immunic Combined Unaudited Pro Forma Data:		
Basic and diluted net loss per share	$ (0.11)	$ (0.14)
Book value per share	$ 0.11	

Table of Contents

UNAUDITED PRO FORMA CONDENSED COMBINED FINANCIAL STATEMENTS

The following information does not give effect to the proposed reverse stock split of Vital Therapies, Inc., common stock described in Proposal 4 in this proxy statement/prospectus.

On January 6, 2019, Vital Therapies, Inc., a Delaware corporation, and Immunic AG, a stock corporation formed under the laws of Germany focused on developing novel oral therapies for chronic inflammatory and autoimmune diseases, entered into a definitive agreement, or the Exchange Agreement, pursuant to which and subject to, among other things, the satisfaction or waiver of the conditions set forth in the Exchange Agreement, Vital Therapies is expected to acquire all of the outstanding shares of Immunic in exchange for newly-issued shares of Vital Therapies in an all-stock transaction, or the Transaction. The exchange is intended to constitute a transaction qualifying for federal income tax purposes as a tax-free exchange under the provisions of Section 351(a) of the Internal Revenue Code of 1986, as amended.

Subject to the terms and conditions of the Exchange Agreement, at the effective time of the exchange, or the Effective Time, (a) each holder of Immunic s outstanding shares shall contribute and transfer by assignment all of the Immunic shares held by such holder in exchange for Vital Therapies common stock based on the exchange ratio described below. Immediately following the exchange, Immunic AG will be a wholly-owned subsidiary of Vital Therapies and the name of Vital Therapies will be changed from Vital Therapies, Inc. to Immunic, Inc.

Under the exchange ratio provided in the Exchange Agreement, as of and immediately after the merger and assuming no adjustments for Vital Therapies net cash balance or for the purchase price in Immunic s pre-closing equity financing, all as provided for in the Exchange Agreement, the Immunic security holders are expected to own approximately 89% of the aggregate number of shares of the company s common stock issued and outstanding plus any common stock equivalent outstanding on the Effective Date, or the Post-Closing Shares, and the stockholders of Vital Therapies are expected to own approximately 11% of the aggregate number of Post-Closing Shares, as of the Effective Date.

Concurrent with Immunic s entry into the Exchange Agreement, certain of Immunic s existing security holders entered into an Investment and Subscription Agreement to purchase shares of Immunic s common stock in a private financing prior to consummation of the Transaction for an aggregate purchase price of approximately $30.3 million, referred to as the Pre-Closing Financing.

The following unaudited pro forma condensed combined financial statements give effect to the exchange of all of the outstanding shares of Immunic AG for newly-issued shares of Vital Therapies in the Transaction, pursuant to the Exchange Agreement between the companies, and were prepared in accordance with the regulations of the Securities and Exchange Commission, or the SEC. Immunic was determined to be the accounting acquirer based upon the terms of the Transaction and other factors including: (i) Immunic s security holders will own over 80% of the company, (ii) Immunic directors will hold a majority of the board seats in the company, and (iii) Immunic management will hold all key positions in the management of the combined company, immediately following the closing of the Transaction.

In the unaudited pro forma condensed combined financial statements, the Transaction will be recorded as a business combination using the acquisition method of accounting under accounting principles generally accepted in the United States, or U.S. GAAP . The Transaction will be accounted for as a reverse acquisition under the accounting guidance and Immunic, as the accounting acquirer, will record the assets acquired and liabilities assumed of Vital Therapies in the Transaction at their fair values as of the acquisition date. Vital Therapies and Immunic have determined a preliminary estimated purchase price calculated as described in Note 2 to the unaudited pro forma condensed combined financial statements. The net tangible and intangible assets acquired and liabilities assumed in connection

with the Transaction are recorded at their estimated acquisition date fair values. A final determination of these estimated fair values will be based on the estimated net tangible and intangible assets and liabilities of Vital Therapies that exist as of the date of completion of the Transaction.

Table of Contents

The unaudited pro forma condensed combined balance sheet as of September 30, 2018 gives effect to the Transaction as if it took place on September 30, 2018 and combines the historical balance sheets of Vital Therapies and Immunic as of such date. The unaudited pro forma condensed combined statements of operations for the nine months ended September 30, 2018 and for the year ended December 31, 2017 gives effect to the Transaction as if it took place as of January 1, 2017, and combines the historical results of Vital Therapies and Immunic for each period. The historical financial statements of Vital Therapies and Immunic have been adjusted to give pro forma effect to events that are (i) directly attributable to the Transaction, (ii) factually supportable, and (iii) with respect to the unaudited pro forma condensed combined statements of operations, at the date hereof are expected to have a continuing impact on the combined companies results.

The unaudited pro forma condensed combined financial information is based on the assumptions and adjustments that are described in the accompanying notes. The unaudited pro forma condensed combined financial statements and pro forma adjustments have been prepared based on preliminary estimates of fair value of assets acquired and liabilities assumed. Differences between these preliminary estimates and the final acquisition accounting are likely to occur and these differences could be material as compared to the accompanying unaudited pro forma condensed combined financial statements and the combined companies future results of operations and financial position. The actual amounts recorded as of the completion of the Transaction may also differ materially from the information presented in these unaudited condensed combined pro forma financial statements as a result of, among other factors, the amount of capital raised by Immunic between entering the Exchange Agreement and closing of the Transaction; the amount of cash used in Vital Therapies operations between the signing of the Exchange Agreement and the closing of the Transaction; the timing of closing of the Transaction; changes in the fair value of Vital Therapies common stock; and other changes in the Vital Therapies assets and liabilities that occur prior to the completion of the Transaction.

The unaudited pro forma condensed combined financial information does not give effect to the potential impact of current financial conditions, regulatory matters, operating efficiencies or other savings or expenses that may be associated with the integration of the two companies, if any. The unaudited pro forma condensed combined financial information is preliminary and has been prepared for informational purposes only and is not necessarily indicative of the financial position or results of operations in future periods or the results that actually would have been realized had Vital Therapies and Immunic been a combined company during the specified periods. The actual results reported in periods following the transaction are expected to differ significantly from those reflected in the unaudited pro forma condensed combined financial information presented herein for a number of reasons, including, but not limited to, the termination of Vital Therapies clinical trials and the related reduction in work force in September 2018, sales of assets and actual differences from the assumptions used to prepare the pro forma financial information.

The unaudited pro forma condensed combined financial information, including the notes thereto, should be read in conjunction with the separate Vital Therapies and Immunic historical financial statements, and their respective management s discussion and analysis of financial condition and results of operations included elsewhere in this proxy statement/prospectus.

Table of Contents

Unaudited Pro Forma Condensed Combined Balance Sheet

September 30, 2018

(in millions)

	Vital Therapies	Immunic U.S. GAAP Adjusted (1)	Pro Forma Adjustments	Note	Pro Forma Combined
Assets					
Current assets					
Cash and cash equivalents	$ 17.8	$ 10.0	$ 30.3	A	$ 58.1
Prepaid expenses and other current assets	1.3	0.2	1.3	B	2.8
Total current assets	19.1	10.2	31.6		60.9
Property and equipment, net	0.9				0.9
Intangible assets, net					
In process research and development			0.6	C	0.6
Goodwill			0.1	D	0.1
Total assets	$ 20.0	$ 10.2	$ 32.3		$ 62.5
Liabilities and Stockholders Equity					
Current liabilities:					
Accounts payable	$ 1.1	$ 0.4	$		$ 1.5
Accrued expenses and other current liabilities	4.6	0.2	7.8	E	12.6
Total current liabilities	5.7	0.6	7.8		14.1
Stockholders equity:					
Preferred Stock		0.4	(0.4)	G	
Common Stock				G	
Additional paid-in capital	349.1	30.2	30.3	A	78.6
			7.3	F	
			(338.3)	G	
Accumulated other comprehensive income	0.1	(0.7)	(0.1)	G	(0.7)
Accumulated deficit	(334.9)	(20.3)	(1.9)	E	(29.5)
			(7.3)	F	
			334.9	G	
Total stockholders equity	14.3	9.6	24.5		48.4
Total liabilities and stockholders equity	$ 20.0	$ 10.2	$ 32.3		$ 62.5

(1) Intangible assets for Immunic excludes $2.9 million of costs related to acquired intangibles that Immunic capitalizes and amortizes under international financial reporting standards as issued by the International Accounting Standards Board that are expensed in the period acquired under U.S.generally accepted accounting principles. Accordingly, the accumulated deficit is also $2.9 million higher in the pro forma condensed combined balance sheet.

See accompanying notes to the unaudited pro forma condensed combined financial statements.

Table of Contents

Unaudited Pro Forma Condensed Combined Statement of Operations

For the Nine Months Ended September 30, 2018

(in millions, except share and per share amounts)

	Vital Therapies	Immunic U.S. GAAP Adjusted (1)	Pro Forma Adjustments	Pro Forma Combined	Note
Operating Expenses:					
Research and development	$ 24.8	$ 5.3	$	$ 30.1	
General and administrative	11.1	1.5		12.6	
Severance costs	2.4			2.4	
Impairment loss	1.2			1.2	
Total operating expenses	39.5	6.8		46.3	
Loss from operations	(39.5)	(6.8)		(46.3)	
Other income (expense):					
Interest income (expense), net	0.5			0.5	
Other income (expense), net					
Total other income (expense)	0.5			0.5	
Net loss	$ (39.0)	$ (6.8)	$	$ (45.8)	
Net loss per share, basic and diluted	$ (0.92)	$ (18.69)		$ (0.11)	
Weighted-average common shares outstanding, basic and diluted	42,369,093	362,997		424,118,380	H

(1) Research and development costs for Immunic exclude $0.2 million of costs related to the amortization of acquired intangibles that Immunic capitalizes and amortizes under international financial reporting standards as issued by the International Accounting Standards Board that is expensed in the period acquired under U.S.generally accepted accounting principles.

See accompanying notes to the unaudited pro forma condensed combined financial statements.

26

Table of Contents

Unaudited Pro Forma Condensed Combined Statement of Operations

For the Year Ended December 31, 2017

(in millions, except share and per share amounts)

	Vital Therapies	Immunic U.S. GAAP Adjusted (1)	Pro Forma Adjustments	Note	Pro Forma Combined	Note
Operating Expenses:						
Research and development	$ 39.4	$ 8.7	$ (1.3)	B	$ 46.8	
General and administrative	13.3	1.3			14.6	
Severance costs						
Total operating expenses	52.7	10.0	(1.3)		61.4	
Loss from operations	(52.7)	(10.0)	1.3		(61.4)	
Other income (expense):						
Interest income (expense), net	0.7				0.7	
Other income (expense), net	(0.1)				(0.1)	
Total other income (expense)	0.6				0.6	
Net loss	$ (52.1)	$ (10.0)	$ 1.3		$ (60.8)	
Net loss per share, basic and diluted	$ (1.31)	$ (33.14)			$ (0.14)	
Weighted-average common shares outstanding, basic and diluted	39,859,009	301,554			421,608,296	H

(1) Research and development costs for Immunic include $0.9 million of costs for acquired intangibles expensed under U.S.generally accepted accounting principles that Immunic capitalizes and amortizes under international financial reporting standards as issued by the International Accounting Standards Board.

See accompanying notes to the unaudited pro forma condensed combined financial statements.

Table of Contents

Notes to the Unaudited Pro Forma Condensed Combined Financial Information

1. Description of the Transaction, Basis of Presentation

Description of the Transaction

On January 6, 2019, Vital Therapies, Inc., a Delaware corporation, and Immunic AG, a stock corporation formed under the laws of Germany focused on developing novel oral therapies for chronic inflammatory and autoimmune diseases, entered into a definitive agreement, or the Exchange Agreement, pursuant to which and subject to, among other things, the satisfaction or waiver of the conditions set forth in the Exchange Agreement, Vital Therapies is expected to acquire all of the outstanding shares of Immunic in exchange for newly-issued shares of Vital Therapies in an all-stock transaction, or the Transaction. The exchange is intended to constitute a transaction qualifying for federal income tax purposes as a tax-free exchange under the provisions of Section 351(a) of the Internal Revenue Code of 1986, as amended.

Subject to the terms and conditions of the Exchange Agreement, at the effective time of the exchange, or the Effective Time, (a) each holder of Immunic s outstanding shares shall contribute and transfer by assignment all of the Immunic shares held by such holder in exchange for Vital Therapies common stock based on the exchange ratio described below. Immediately following the exchange, Immunic AG will be a wholly-owned subsidiary of Vital Therapies and the name of Vital Therapies will be changed from Vital Therapies, Inc. to Immunic, Inc.

Under the exchange ratio provided in the Exchange Agreement, as of and immediately after the merger and assuming no adjustments for Vital Therapies net cash balance or for the purchase price in Immunic s pre-closing equity financing, all as provided for in the Exchange Agreement, the Immunic security holders are expected to own approximately 89% of the aggregate number of shares of the company s common stock issued and outstanding plus any common stock equivalent outstanding on the Effective Date, or the Post-Closing Shares, and the stockholders of Vital Therapies are expected to own approximately 11% of the aggregate number of Post-Closing Shares, as of the Effective Date.

Concurrent with Immunic s entry into the Exchange Agreement, certain of Immunic s existing security holders entered into an Investment and Subscription Agreement to purchase shares of Immunic s common stock in a private financing prior to consummation of the Transaction for an aggregate purchase price of approximately $30.3 million, referred to as the Pre-Closing Financing.

In addition to other customary conditions, the Transaction requires Vital Therapies stockholders to approve the issuance of shares to the Immunic security holders, and the amendment of Vital Therapies certificate of incorporation to effect a reverse split of its shares and to change its name to Immunic, Inc. The Exchange Agreement also contains certain termination rights for both Vital Therapies and Immunic, and further provides that, upon termination under specified circumstances, either party may be required to pay the other party a termination fee and, in some circumstances, reimburse the other party s expenses up to an agreed maximum.

Basis of Presentation

The accompanying unaudited pro forma condensed combined financial information was prepared in accordance with accounting principles generally accepted in the United States, or U.S. GAAP, and pursuant to Article 11 of SEC Regulation S-X. The condensed combined pro forma financial position and results of operations of the combined companies is based upon the separate historical data of Vital Therapies and Immunic. Immunic s historical financial

statements were prepared under International Financial Reporting Standards as issued by the International Accounting Standards Board and converted to U.S. GAAP.

The accompanying unaudited pro forma condensed combined balance sheet as of September 30, 2018 is presented as if the Transaction had been completed on September 30, 2018. The unaudited pro forma condensed combined statement of operations for the nine months ended September 30, 2018 and for the year ended

Table of Contents

December 31, 2017 gives effect to the Transaction as if it took place as of January 1, 2017, and were prepared using the historical results of Vital Therapies and Immunic for the nine months ended September 30, 2018, and for the year ended December 31, 2017, respectively.

Accounting Policies

During the preparation of the accompanying unaudited pro forma condensed combined financial information, management did not identify any material differences between Vital Therapies accounting policies and the accounting policies of Immunic.

2. Accounting for the Transaction

The management of Vital Therapies and Immunic has preliminarily concluded that the Transaction represents a business combination pursuant to Financial Accounting Standards Board Accounting Standards Codification Topic 805, *Business Combinations*, or ASC 805. For accounting purposes, Immunic has been determined (i) to be the accounting acquirer based upon the terms of the Transaction and other factors including: (x) Immunic s security holders are expected to own over 80% of the company immediately following the closing of the Transaction, (y) Immunic directors will hold a majority board seats in the company, and (z) Immunic management will hold all key positions in the management of the combined company, and (ii) that the Transaction will be accounted for as a reverse acquisition using the acquisition method of accounting for business combinations under the guidance of ASC 805. Accordingly, Immunic will record the acquired assets and liabilities at their fair value as of the Transaction closing date.

Management has estimated the preliminary purchase price and not yet completed an external valuation analysis of the fair market value of Vital Therapies assets to be acquired and liabilities to be assumed. As a result, management has estimated the allocation of the preliminary purchase price to Vital Therapies assets and liabilities. This preliminary purchase price allocation has been used to prepare the pro forma adjustments in the unaudited pro forma condensed combined balance sheet. The final purchase price allocation will be determined when the final purchase price has been determined, the final assets and liabilities and any asset sales are known, and detailed valuations and any other studies and calculations deemed necessary have been completed. The final purchase price and purchase price allocation could differ materially from the preliminary purchase price and purchase price allocation used to prepare the pro forma adjustments resulting from changes to assets and liabilities and to the ultimate purchase consideration, and operations during the intervening period to the closing of the Transaction, among other factors.

The preliminary purchase price, or the proportional value to be retained by the Vital Therapies stockholders and the holders of its common stock equivalents, has been based on the last reported sale price of Vital Therapies common stock on The Nasdaq Global Market on January 31, 2019. This preliminary purchase price is based on the aggregate number of shares of Vital Therapies common stock and common stock equivalents expected to be outstanding at the closing of the Transaction as summarized below (amounts in millions, except share and per share amounts):

Estimated number of shares to be owned by Vital Therapies stockholders		47,469,694
Multiplied by the fair value per share of Vital Therapies commons stock	$	0.22
Estimated purchase price	$	10.4

29

Table of Contents

The actual purchase price will fluctuate until the Effective Date of the Transaction and the final valuation could differ significantly from the preliminary estimate. The following table illustrates the effect of changes in the price of Vital Therapies common stock on the estimated purchase price and on goodwill or the estimated bargain purchase gain than may result at certain purchase price levels in the Transaction (in millions, except per share amounts):

	Vital Stock Price	Purchase Price	Goodwill/ (Bargain Purchase Gain)
Increase of 10%	$ 0.24	$ 11.5	$ 1.2
Increase of 20%	$ 0.26	$ 12.5	$ 2.2
Increase of 30%	$ 0.29	$ 13.6	$ 3.3
Decrease of 10%	$ 0.20	$ 9.4	$ (0.9)
Decrease of 20%	$ 0.18	$ 8.4	$ (1.9)
Decrease of 30%	$ 0.15	$ 7.3	$ (3.0)

Any excess of the purchase price over the estimated fair value of the net assets acquired will be recorded as goodwill on the balance sheet. Any excess of the estimated fair value of the net assets acquired over the purchase price paid will be recorded as a bargain purchase gain in the statement of operations.

The net tangible and intangible assets acquired and liabilities assumed in connection with the Transaction are recorded at their estimated acquisition date fair values with the excess going to goodwill. A final determination of these estimated fair values will be based on the estimated net tangible and intangible assets and liabilities of Vital Therapies that exist as of the date of completion of the Transaction. The following summarizes a preliminary allocation of the estimated purchase price as if the Transaction had been completed on September 30, 2018 (in millions):

Cash and cash equivalents	$ 17.8
Prepaid expenses and other assets	2.6
Property and equipment	0.9
In-process research and development	0.6
Accounts payable, accrued expenses and other liabilities	(11.6)
Net assets acquired	10.3
Less: preliminary purchase price	10.4
Goodwill	$ 0.1

The allocation of the estimated purchase price is preliminary because the proposed Transaction has not yet been completed. The purchase price will remain preliminary until the close of the Transaction. The purchase price allocation will also remain preliminary until the final assets and liabilities existing at closing are determined and detailed valuations and any other studies and calculations deemed necessary have been completed. The final determination of the purchase price allocation is anticipated to be completed as soon as practicable after completion of the Transaction and will be based on the fair values of the assets acquired and liabilities assumed as of the closing date of the Transaction. The final amounts allocated to assets acquired and liabilities assumed could differ significantly from the amounts presented in the unaudited pro forma condensed combined financial statements.

Note 4 Pro forma adjustments

The unaudited pro forma condensed combined financial statements include pro forma adjustments (i) for the Pre-Closing Financing by Immunic and (ii) that are (x) directly attributable to the Transaction, (y) factually

Table of Contents

supportable, and (z) with respect to the unaudited pro forma condensed combined statements of operations, expected to have a continuing impact on the results of operations of the company. The unaudited pro forma condensed combined financial information does not give effect to the proposed reverse stock split of Vital Therapies common stock described in the reverse stock split proposal.

The pro forma adjustments, based on preliminary estimates that may change significantly as additional information is obtained, are as follows:

A. Adjustments to reflect an estimated $30.3 million in net proceeds from the sale of equity capital to be raised by Immunic as part of the Pre-Closing Financing prior to consummation of the Transaction and the issuance of Immunic shares in conjunction with such financing.

B. Reflects the estimated fair value of inventory and supplies on hand at September 30, 2018 that had been expensed by Vital Therapies in accordance with U.S. GAAP.

C. To reflect the estimated fair value of indefinite-lived intangible assets associated with Vital Therapies ELAD System. These intangible assets would only be amortized over their respective estimated useful lives after approval, if any, by the FDA or other regulatory agencies.

D. Represents an adjustment to record goodwill resulting from the Transaction. Goodwill represents the excess of the preliminary estimated purchase price over the estimated fair value of Vital Therapies identified net assets.

E. To reflect the accrued liabilities that are assumed by Immunic of approximately $2.2 million in severance and change in control obligations payable to Vital Therapies officers and $5.6 million for estimated transaction costs directly attributable to the closing of the Transaction. The $5.6 million in transaction costs includes the following costs to be incurred by Vital Therapies: $1.3 million for investment banking services, $1.3 million in insurance costs, and $1.1 million in legal, accounting and other expenses; and the following are transaction costs to be incurred by Immunic: $1.0 million for investment banking services and $0.9 million in legal, accounting and other expenses. These pro forma transaction costs are not reflected in the unaudited pro forma condensed combined statements of operations as these amounts are not expected to have a continuing effect on the operating results of the combined company.

F. Adjustment to reflect the acceleration of restricted stock units held by Vital Therapies officers on termination and the issuance of shares to Immunic officers as a transaction bonus.

G. To reflect (1) the elimination of Vital Therapies historical stockholders equity and (2) the issuance of Vital Therapies common shares in exchange for Immunic s common and preferred shares to finance the acquisition.

H. Reflects the pro forma weighted average shares outstanding, including the issuance of common shares to finance the Transaction, without giving effect to the proposed reverse stock split.

Table of Contents

MARKET PRICE AND DIVIDEND INFORMATION

Vital Therapies common stock is listed on The Nasdaq Global Market under the symbol VTL. The following table presents, for the periods indicated, the range of high and low per share sales prices for our common stock as reported on The Nasdaq Global Market for each of the periods set forth below. Immunic is a private company and its common stock and preferred stock are not publicly traded.

The closing price of our common stock on January 4, 2019, the last trading day prior to the public announcement of the Transaction, was $0.24 per share, and the closing price of our common stock on February [ ], 2019 was $[ ] per share, in each case as reported on The Nasdaq Stock Market.

Because the market price of our common stock is subject to fluctuation, the market value of the shares of Vital Therapies common stock that Immunic shareholders will be entitled to receive in the Transaction may increase or decrease.

Assuming approval of Proposal 4 and successful application for initial listing with The Nasdaq Stock Market, following the completion of the Transaction, our common stock will be listed on The Nasdaq Stock Market and will trade under the company s new name, Immunic, Inc. and new trading symbol, IMUX.

As of January 15, 2019, there were 52 registered holders of our common stock. This number does not include stockholders for whom shares were held in nominee or street name. For information regarding the beneficial ownership of some stockholders of Vital Therapies and Immunic, see the section entitled *Principal Stockholders of Vital Therapies* beginning on page 261 and the section entitled *Principal Shareholders of Immunic* beginning on page 263 of this proxy statement/prospectus.

Table of Contents

RISK FACTORS

The company will be faced with a market environment that cannot be predicted and that involves significant risks, many of which will be beyond its control. In addition to the other information contained in this proxy statement/prospectus, you should carefully consider the material risks described below before deciding how to vote your shares of Vital Therapies common stock. In addition, you should read and consider the risks associated with the business of Vital Therapies because these risks may also affect the company following the Transaction these risks can be found in Vital Therapies Annual Report on Form 10-K, as updated by subsequent Quarterly Reports on Form 10-Q, all of which are filed with the SEC. You should also read and consider the other information in this proxy statement/prospectus. Please see the section entitled Where You Can Find More Information in this proxy statement/prospectus.

Risks Related to the Transaction

The Exchange Ratio is not adjustable based on the market price of Vital Therapies common stock so the Transaction consideration at the closing may have a greater or lesser value than at the time the Exchange Agreement was signed.

The relative proportion of the company that the Vital Therapies stockholders will own when the Transaction closes will be based on the relative valuations of Vital Therapies and Immunic as negotiated by the parties and as specified in the Exchange Agreement. Following the completion of the Transaction, (a) current Vital Therapies stockholders are expected to own approximately 11% of the common stock of the company and (b) Immunic shareholders are expected to own approximately 89% of the common stock of the company, on a fully-diluted basis (including shares issued in Immunic s concurrent financing), assuming that Immunic closes its concurrent financing immediately prior to the effective time of the Transaction. These estimates are based on the anticipated Exchange Ratio and are subject to adjustment as provided in the Exchange Agreement. Fluctuations in Vital Therapies stock price will not affect Vital Therapies valuation under the Exchange Agreement or the portion of the company to be retained by our existing stockholders. The terms of the Exchange Agreement provide for adjustments to the relative valuations of both Vital Therapies and Immunic in certain events. For example, prior to the consummation of the Transaction, the Exchange Ratio at the closing of the Transaction may be subject to either (i) an upward adjustment to the extent that Vital Therapies net cash at the effective time of the Transaction is less than $4,200,000 (and as a result, Vital Therapies securityholders could own less, and Immunic securityholders could own more, of the company) or (ii) a downward adjustment to the extent that Vital Therapies net cash at the effective time of the Transaction is greater than $5,200,000 (and as a result, Vital Therapies securityholders could own more, and Immunic securityholders could own less, of the company). In addition, if Vital Therapies net cash at the effective time of the Transaction is less than a specified minimum amount of approximately $1,500,000, the Exchange Ratio at the closing of the Transaction may be subject to an additional upward adjustment (and as a result, Vital Therapies securityholders could own less, and Immunic securityholders could own more, of the company). The minimum specified amount will be $1,500,000 if the Transaction closes on or before March 31, 2019, and the minimum cash will be reduced by $5,000 for each day (including any partial day) after March 31, 2019 until the Transaction closes.

Failure to complete the Transaction may result in Vital Therapies or Immunic paying a termination fee to the other party and could harm the common stock price of Vital Therapies and future business and operations of each company.

If the Transaction is not completed, Vital Therapies and Immunic are subject to the following risks:

upon termination of the Exchange Agreement under specified circumstances, Immunic may be required to pay Vital Therapies a termination fee of $2,000,000 and/or up to $275,000 in expense reimbursements, or Vital Therapies may be required to pay Immunic a termination fee of $500,000 and/or up to $275,000 in expense reimbursements;

the price of Vital Therapies common stock may decline and remain volatile;

Table of Contents

the parties will have incurred significant expenses related to the Transaction, such as legal and accounting fees, which Vital Therapies and Immunic estimate will total approximately $1.4 million and $0.5 million, respectively, many of which must be paid even if the Transaction is not completed; and

Vital Therapies may be forced to cease its operations, dissolve and liquidate its assets.

In addition, if the Exchange Agreement is terminated and the board of directors of Vital Therapies or Immunic determines to seek another business combination, there can be no assurance that either Vital Therapies or Immunic will be able to find a partner willing to provide equivalent or more attractive consideration than the consideration to be provided by each party in the Transaction or any partner at all.

If the conditions to the closing of the Transaction are not met, the Transaction may not occur.

Even if the change of control and related share issuance are approved by the stockholders of Vital Therapies, specified conditions must be satisfied or waived to complete the Transaction. These conditions are set forth in the Exchange Agreement and described in the section entitled *The Exchange Agreement Conditions to the Completion of the Transaction* in this proxy statement/prospectus, such as Immunic s concurrent financing. Vital Therapies and Immunic cannot assure you that all of the conditions will be satisfied or waived. If the conditions are not satisfied or waived, the Transaction may not occur or will be delayed, and Vital Therapies and Immunic each may lose some or all the intended benefits of the Transaction.

The Transaction may be completed even though material adverse changes may result from the announcement of the Transaction, industry-wide changes and other causes.

In general, either Vital Therapies or Immunic can refuse to complete the Transaction if there is a material adverse change affecting the other party between January 6, 2019, the date of the Exchange Agreement, and the closing of the Transaction. However, certain types of changes do not permit either party to refuse to complete the Transaction, even if such change could be said to have a material adverse effect on Vital Therapies or Immunic, including:

any rejection by a governmental body of a registration or filing by Vital Therapies or Immunic relating to their respective intellectual property rights;

any change in the cash position of Vital Therapies or Immunic that results from operations in the ordinary course of business;

conditions generally affecting the industries in which Vital Therapies or Immunic participates or the U.S. or global economy or capital markets as a whole, to the extent that such conditions do not have a disproportionate impact on Vital Therapies or Immunic and their respective subsidiaries, taken as a whole;

any failure by Immunic to meet internal projections or forecasts on or after the date of the Exchange Agreement, provided that any such effect, change, event, circumstance or development causing or contributing to any such failure to meet projections or forecasts may constitute a material adverse effect of Vital Therapies or Immunic and may be taken into account in determining whether a material adverse effect

has occurred;

any failure by Vital Therapies to meet internal projections or forecasts or third-party predictions for any period ending (or for which results are released) on or after the date of the Exchange Agreement or any change in the price or trading volume of Vital Therapies common stock, provided that any such effect, change, event, circumstance or development causing or contributing to any such failure to meet projections or forecasts may constitute a material adverse effect of Vital Therapies and may be taken into account in determining whether a material adverse effect has occurred;

the execution, delivery, announcement or performance of obligations under the Exchange Agreement or the announcement, pendency or anticipated consummation of the Transaction or Immunic s concurrent financing;

Table of Contents

a transfer, sale, lease, disposition or license of assets by Vital Therapies that is permitted under the Exchange Agreement;

any natural disaster or any acts of terrorism, sabotage, military action or war or any escalation or worsening thereof; or

any changes after the date of the Exchange Agreement in U.S. GAAP or applicable laws.

If adverse changes occur and Vital Therapies and Immunic still complete the Transaction, the stock price of the company following the closing of the Transaction may suffer. This in turn may reduce the value of the Transaction to the stockholders of Vital Therapies, Immunic or both.

Some executive officers and directors of Vital Therapies and Immunic have interests in the Transaction that are different from yours and that may influence them to support or approve the Transaction without regard to your interests.

Some officers and directors of Vital Therapies and Immunic are parties to arrangements that provide them with interests in the Transaction that are different from yours, including, among others, service as an officer or director of the company following the closing of the Transaction, severance and retention benefits, the acceleration of equity award vesting, and continued indemnification. For more information regarding the interests of the Vital Therapies and Immunic executive officers and directors in the Transaction, see the sections entitled *The Transaction Interests of the Directors and Executive Officers of Vital Therapies in the Transaction* and *The Transaction Interests of the Directors and Executive Officers of Immunic in the Transaction* of this proxy statement/prospectus.

The market price of Vital Therapies common stock following the Transaction may decline as a result of the Transaction.

The market price of Vital Therapies common stock may decline as a result of the Transaction for a number of reasons, including if:

investors react negatively to the prospects of the company s business and prospects following the closing of the Transaction;

the effect of the Transaction on the company s business and prospects following the closing of the Transaction is not consistent with the expectations of financial or industry analysts; or

the company does not achieve the perceived benefits of the Transaction as rapidly or to the extent anticipated by stockholders or financial or industry analysts.

Immunic and Vital Therapies securityholders will have a reduced ownership and voting interest in, and will exercise less influence over the management of, the company following the closing of the Transaction as compared to their current ownership and voting interest in the respective companies.

After the completion of the Transaction, the current securityholders of Immunic and Vital Therapies will own a smaller percentage of the company than their ownership in their respective companies prior to the Transaction. Immediately after the Transaction, it is currently estimated that Immunic securityholders will own approximately 89% of the common stock of Vital Therapies, with Vital Therapies securityholders, whose shares of Vital Therapies common stock will remain outstanding after the Transaction, will own approximately 11% of the common stock of the company on a fully-diluted basis, calculated on a pro forma basis including after giving effect to (i) the issuance of common shares by Immunic immediately prior to the effective time of the Transaction pursuant to the terms of the Subscription Agreement, and (ii) the Transaction. These estimates are based on the anticipated Exchange Ratio and are subject to adjustment as provided in the Exchange Agreement.

Table of Contents

In addition, the five member board of directors of the company will initially consist of four individuals with prior affiliations with Immunic and Dr. Duane Nash, Chief Executive Officer, President and a director of Vital Therapies. Consequently, securityholders of Immunic and Vital Therapies will be able to exercise less influence over the management and policies of the company following the closing of the Transaction than they currently exercise over the management and policies of their respective companies.

During the pendency of the Transaction, Vital Therapies and Immunic may not be able to enter into a business combination with another party at a favorable price because of restrictions in the Exchange Agreement, which could adversely affect their respective businesses.

Covenants in the Exchange Agreement impede the ability of Vital Therapies and Immunic to make acquisitions, subject to specified exceptions relating to fiduciary duties or complete other transactions that are not in the ordinary course of business pending completion of the Transaction. As a result, if the Transaction is not completed, the parties may be at a disadvantage to their competitors during that period. In addition, while the Exchange Agreement is in effect, each party is generally prohibited from soliciting, initiating, encouraging or entering into specified extraordinary transactions, such as a merger, sale of assets or other business combination, with any third party, subject to specified exceptions, even if any such transactions could be favorable to such party s stockholders.

Certain provisions of the Exchange Agreement may discourage third parties from submitting competing proposals, including proposals that may be superior to the arrangements contemplated by the Exchange Agreement.

The terms of the Exchange Agreement prohibit each of Vital Therapies and Immunic from soliciting competing proposals or cooperating with persons making unsolicited takeover proposals, except in limited circumstances when such party s board of directors determines in good faith, after consultation with its independent financial advisor, if any, and outside counsel, that an unsolicited competing proposal constitutes, or would reasonably be expected to result in, a superior competing proposal and that failure to take such action would be reasonably likely to result in a breach of the fiduciary duties of the board of directors. In addition, if Vital Therapies or Immunic terminate the Exchange Agreement under specified circumstances, including terminating because of a decision of a board of directors to recommend a superior competing proposal, Immunic may be required to pay Vital Therapies a termination fee of $2,000,000 and/or up to $275,000 in expense reimbursements, or Vital Therapies may be required to pay Immunic a termination fee of $500,000 and/or up to $275,000 in expense reimbursements, as defined and described under *The Exchange Agreement Termination of the Exchange Agreement and Termination Fee.* This termination fee may discourage third parties from submitting competing proposals to Vital Therapies or Immunic or their stockholders, and may cause the respective boards of directors to be less inclined to recommend a competing proposal.

Because the lack of a public market for Immunic s capital stock makes it difficult to evaluate the fairness of the Transaction, the shareholders of Immunic may receive consideration in the Transaction that is less than the fair market value of Immunic s capital stock and/or Vital Therapies may pay more than the fair market value of Immunic s capital stock.

The outstanding capital stock of Immunic is privately held and is not traded in any public market. The lack of a public market makes it extremely difficult to determine the fair market value of Immunic s capital stock. Because the percentage of Vital Therapies equity to be issued to Immunic shareholders was determined based on negotiations between the parties, it is possible that the value of the Vital Therapies common stock to be received by Immunic shareholders will be less than the fair market value of Immunic s capital stock, or Vital Therapies may pay more than the aggregate fair market value for Immunic s capital stock.

36

Table of Contents

Risks Related to Vital Therapies

Risks Related to Our Evaluation of Strategic Alternatives

Our activities to evaluate and pursue strategic alternatives may not be successful.

In September 2018, we voluntarily discontinued our development of our product candidate, the ELAD System, or ELAD, in view of the results of our VTL-308 phase 3 clinical trial in the U.S. and Europe. We have engaged Ladenburg Thalmann & Co. Inc., as a financial advisor to assist us in pursuing strategic alternatives, and on January 7, 2019, we announced that we had entered into the Exchange Agreement. We continue to evaluate additional strategic alternatives in order to enhance stockholder value, including the possibility of a sale of our assets related to the ELAD System, and we have suspended many of our research and development activities to reduce operating expenses while we evaluate and pursue these opportunities. We have and expect to continue to devote significant time and resources to identifying and evaluating strategic alternatives, including the Transaction; however, there can be no assurance that the Transaction or other such activities will enhance stockholder value. In addition, potential strategic transactions that require stockholder approval, such as the Transaction and the related matters stockholders are being asked to approve in this proxy statement/prospectus, may not be approved by our stockholders. Further, any strategic transaction that is completed ultimately may not deliver the anticipated benefits or enhance stockholder value.

Any strategic transaction may require us to incur non-recurring or other charges, may increase our near- and long-term expenditures and may pose significant integration challenges or disrupt our management or business, which could adversely affect our operations and financial results. For example, these transactions may entail numerous operational and financial risks, including:

- exposure to unknown liabilities;
- incurrence of substantial debt or dilutive issuances of equity securities to pay for acquisitions;
- higher than expected acquisition and integration costs;
- write downs of assets or goodwill or impairment charges;
- increased amortization expenses;
- difficulty and cost in combining the operations and personnel of any acquired businesses with our operations and personnel;
- impairment of relationships with key suppliers or customers of any acquired businesses due to changes in management and ownership;

the inability to sell assets or to reduce its leased space; and

the inability to retain key employees of our company or any acquired businesses.

Accordingly, although there can be no assurance that we will undertake or successfully complete any strategic transactions of the nature described above. Any transactions that we do complete may be subject to the foregoing or other risks and could have a material adverse effect on our business, financial condition and prospects.

If we do not successfully consummate a strategic transaction, our board of directors may decide to pursue a dissolution and liquidation of our company. In such an event, the amount of cash available for distribution to our stockholders will depend significantly on the timing of such liquidation as well as the amount of cash that will need to be reserved for commitments and contingent liabilities.

There can be no assurance that the Transaction or any other strategic transactions we may identify or undertake, including the possible sale of our assets, will result in one or more successfully consummated transactions. If the Transaction is not completed, our board of directors may decide to pursue a dissolution and liquidation of our company. In such an event, the amount of cash available for distribution to our stockholders will depend heavily

Table of Contents

on the timing of such decision and, ultimately, such liquidation, since the amount of cash available for distribution continues to decrease as we fund our operations while we continue to pursue strategic alternatives. In addition, if our board of directors were to approve and recommend, and our stockholders were to approve, a dissolution and liquidation of our company, we would be required under Delaware corporate law to pay our outstanding obligations, as well as to make reasonable provision for contingent and unknown obligations, prior to making any distributions in liquidation to our stockholders. Our commitments and contingent liabilities may include (i) regulatory and clinical obligations; (ii) obligations under our employment and related agreements with certain employees that provide for severance and other payments following a termination of employment occurring for various reasons, including a change in control of our company; (iii) potential litigation against us, and other various claims and legal actions arising in the ordinary course of business; and (iv) non-cancelable facility lease obligations. As a result of this requirement, a portion of our assets may need to be reserved pending the resolution of such obligations. In addition, we may be subject to litigation or other claims related to a dissolution and liquidation of our company. If a dissolution and liquidation were pursued, our board of directors, in consultation with its advisors, would need to evaluate these matters and make a determination about a reasonable amount to reserve. Accordingly, holders of our common stock could lose all or a significant portion of their investment in the event of a liquidation, dissolution or winding up of our company.

Our business to date has been almost entirely dependent on the success of ELAD and we have recently decided to discontinue further development of ELAD in the U.S. and Europe, and devote significant time and resources to identifying and evaluating strategic alternatives, which may not be successful.

To date, we have invested substantially all of our efforts and financial resources into the research and development of the ELAD System, which was our only product candidate to enter clinical trials. In September 2018, we voluntarily discontinued our development of ELAD in the U.S. and Europe in view of the results of our VTL-308 phase 3 clinical trial.

We are evaluating and pursuing strategic alternatives with a goal to enhance stockholder value, including the Transaction and the potential sale of assets, and have suspended most of our research and development activities, other than our early stage normothermic liver perfusion program, to reduce operating expenses while we focus on closing the Transaction and pursuing other strategic alternatives with respect to the sale of assets.

There can be no assurance that our efforts to sell certain of our assets will result in any definitive offer to buy such assets or if made, what the terms thereof will be or that the Transaction or any asset sale will be approved or consummated. In addition, there can be no assurance that any transactions, involving our company and/or assets, that is consummated would enhance stockholder value. There also can be no assurance that we will conduct additional research or development activities in the future.

We are substantially dependent on our remaining employees to facilitate the consummation of a strategic transaction. We could lose such key employees, in particular, as a result of the VTL-308 data and the reduction in our workforce that we announced in September 2018.

In September 2018, we instituted across the board expense reductions to conserve capital, including a workforce reduction of approximately 85%. Our cash conservation activities may yield unintended consequences, such as attrition beyond our planned reduction in workforce and reduced employee morale, which may cause remaining employees to seek alternative employment. Our ability to successfully complete a strategic transaction, including the Transaction, depends in large part on our ability to retain certain of our remaining personnel, particularly Duane D. Nash M.D., our Chief Executive Officer and President, Robert A. Ashley, our Executive Vice President and Chief Scientific Officer, Michael V. Swanson, our Executive Vice President and Chief Financial Officer, and John M. Dunn,

our General Counsel and Secretary. Despite our efforts to retain these employees, one or more may terminate their employment with us on short notice. The loss of the services of any of these employees could potentially harm our ability to evaluate and pursue strategic alternatives, as well as fulfill our reporting obligations as a public company.

Table of Contents

Competition among biotechnology companies for qualified employees is intense, and the ability to retain our key employees is critical to our ability to effectively manage our resources and to consummate a strategic transaction. Although we have suspended most of our research and development activities, if we resume the development of ELAD outside the U.S. or of new therapeutic products, such development requires expertise from a number of different disciplines, some of which are not widely available. The failure of the VTL-308 clinical trial will likely make it more challenging to retain qualified personnel and difficult to recruit personnel in the future, if necessary. The inability to recruit or loss of the services of any executive, key employee, consultant or advisor may impede our ability to identify and execute on a strategic path forward.

Our key employees have a significant amount of know-how and experience in our company, and the loss of one or more of them could have a material and adverse effect on our operations or ability to consummate a strategic transaction. While we have taken steps to retain our employees, including the granting of equity awards, paying competitive salaries and implementing appropriate bonus programs, these factors may not be enough to retain the employees that we need, particularly in light of the recent failure of our VTL-308 clinical trial and scaling back operations.

The loss of the services of existing personnel or the failure to recruit additional, suitable key scientific, managerial, clinical, regulatory, operational and other personnel in a timely manner, if required, could harm our business. We may experience difficulty in hiring and retaining highly-skilled employees with appropriate qualifications as needed, particularly in light of the recent failure of our VTL-308 clinical trial. If we fail to retain and motivate our current personnel or fail to attract new personnel, our business and future growth prospects and our ability to consummate a strategic transaction would be harmed.

Furthermore, while we have entered into employment letters with each of our executive officers, any of them could leave our employment at any time, as all of our employees are at will employees. It can be challenging to retain qualified personnel. The inability to recruit or loss of the services of any executive, key employee, consultant or advisor may impede our ability to identify and execute on our strategy.

Risks Related to Our Business

We were dependent on the success of the ELAD System, and we do not expect be able to complete the development of, successfully obtain regulatory or marketing approval for, or successfully commercialize, the ELAD System in the United States, or U.S., or Europe.

We are subject to all of the uncertainties and complexities affecting a clinical-stage, combination product, biologic and medical device company. We have not successfully completed clinical development for any of the ELAD System s potential indications in the U.S. or Europe where the ELAD System is regulated as a combination biologic and medical device, and as a combined somatic cell Advanced Therapy Medicinal Product, respectively. In September 2018, we announced that our VTL-308 clinical trial failed to meet both its primary and secondary endpoints. In light of these results, we do not believe that the ELAD System can be approved in the U.S. or Europe, if ever, without additional clinical trials that would require substantial capital and time to complete. Consequently, we have ceased any further development of the ELAD System and are exploring strategic options including the potential sale of these assets. We do not have any other product candidates in our near-term product pipeline, other than our normothermic liver perfusion program which is early in development.

Our VTL-308 clinical trial was performed in certain subjects with severe alcoholic hepatitis, or sAH. Any additional indications we elect to pursue in future trials will require the initiation and completion of additional phase 3 clinical trials demonstrating safety and efficacy for each such indication. For example, even prior to our VTI-208 clinical trial,

the Food and Drug Administration, or FDA, had noted its view that preliminary clinical evidence did not indicate that the ELAD System may demonstrate a substantial improvement over standard of care. Since then, our VTI-208 and VTL-308 clinical trials failed to meet both their primary and secondary endpoints. There is no guarantee that any potential future clinical trials would be completed in a timely fashion or

would succeed. Further, there can be no assurance that any potential future clinical trials will be timely, successful, or that regulators will approve the ELAD System in a timely manner, or at all. Finally, even if clinical testing of the ELAD System is resumed in the future and the ELAD System is subsequently proven to be safe and effective and ultimately receives regulatory approval, there is no guarantee that its commercialization would be successful.

We are a clinical-stage company with no approved products, which makes assessment of our future viability and performance difficult.

We are a clinical-stage company, and we have no approved products or revenues from the sale of products. Our operations to date have been limited to organizing, staffing and financing our company, applying for patent rights, manufacturing on a clinical scale, undertaking clinical trials, and engaging in research and development. Our VTL-308, VTI-208, VTI-210 and VTI-212 trials failed to reach both their primary and secondary endpoints or were terminated. We have not yet demonstrated an ability to obtain regulatory approval, manufacture products on a commercial scale, or conduct the sales and marketing activities necessary for successful product commercialization. As a result, there is limited information about us for investors to use when assessing our future viability and our potential to successfully develop product candidates, conduct clinical trials, manufacture our products on a commercial scale, obtain regulatory approval or profitably commercialize any approved products.

We have not obtained regulatory approval for any of our product candidates in the U.S. or any other country, and we do not believe that the ELAD System can obtain regulatory approval in the U.S. or Europe, if ever, without additional clinical trials that would require substantial capital and time to complete.

We must obtain regulatory approval for each indication we seek before we can market and sell the ELAD System in a particular jurisdiction for such indication. To date, we have not applied for or received the regulatory approvals required for the commercial sale of the ELAD System for any indication in the United States or Europe. In light of the clinical results from our VTL-308 clinical trial, we do not believe that the ELAD System can be approved in the U.S. or Europe, if ever, without additional clinical trials that would require substantial capital and time to complete.

Although we have suspended our research and development activities related to the ELAD System, if we resume development, and if we were able to secure marketing approval, our commercial success would be determined by our ability to obtain acceptable pricing and reimbursement for the ELAD System.

Although we have suspended our research and development activities related to the ELAD System, if we resume the development of the ELAD System, therapies such as the ELAD System are paid for primarily by private and government insurance, although in some markets payment may be made by private individuals and their families. Reimbursement policies and decisions for medical products is a highly bureaucratic, politicized and regulated process that includes consideration of factors such as cost effectiveness and meaningful patient benefit. Government and third-party payors are under great pressure to reduce costs. Furthermore, there are no therapies approved to restore liver function and the lack of an established reimbursement structure introduces additional uncertainty with regard to reimbursement for the ELAD System. Although we do not expect to pursue regulatory approval of the ELAD System at this time, we believe it may be difficult to sustain a commercial price outside of the U.S. at or above the commercial price within the U.S. In addition, we will have no control over the reimbursement or conditions that may be set by the government or private insurers, if any, assuming we were able to secure marketing approval for the ELAD System. In markets where payment would be made by private individuals and their families, such private payors may not be prepared to pay an acceptable price.

40

Table of Contents

Although we have suspended our research and development activities related to the ELAD System, if we resume development, and if we are unable to implement our sales, marketing, distribution, training and support strategies in the U.S. and Europe or enter into agreements with third parties to perform these functions in markets outside of the U.S. and Europe, we will not be able to effectively commercialize the ELAD System or any other product candidates and may not reach profitability.

Although we have suspended our research and development activities, if we resume the development of the ELAD System or of any other product candidates, we may not be able to effectively commercialize any potential product candidates. Our technology is new and complex, and potential customers will have limited knowledge of, or experience with, such a product. In addition, we have no related sales and marketing experience either domestically or abroad. We have not commercialized any products anywhere. Our commercial success would depend on our ability to market and receive adequate reimbursement. This success would also depend on our ability to obtain and maintain adequate pricing.

Further, we do not have a sales or marketing infrastructure and have no experience in the sale, marketing or distribution of biologic products and medical devices. To achieve commercial success of any product candidates, assuming we were to obtain marketing approval, we would need to establish a sales and marketing organization, and we are unable to currently predict how we would market any such product candidates.

We have incurred losses since our inception and expect to incur significant losses in the foreseeable future and may never become profitable. Even if we ultimately achieve profitability, it may not be sustained, and we may require additional capital.

We are a clinical-stage company, and clinical development of a novel therapy is a highly speculative undertaking. We have incurred significant losses in each fiscal year since our inception, including net losses of $39.0 million for the nine months ended September 30, 2018 and $52.1 million, $41.0 million and $52.0 million for the years ended December 31, 2017, 2016 and 2015, respectively. As of September 30, 2018, we had an accumulated deficit of $335.0 million. Even though we discontinued most of our research efforts in September 2018, we expect to continue to spend a considerable amount of our resources on strategic opportunities. We continue to incur expenses related to the pursuit of strategic alternatives, including the Transaction, and we expect these expenses will increase as we work toward obtaining stockholder approval and closing of the Transaction, and as we continue to evaluate opportunities to sell assets. We also may encounter unforeseen expenses, difficulties, complications, delays and other unknown factors that may adversely affect our business. The size of our future net losses will depend, in part, on our decisions on strategic alternatives. Our prior losses and expected future losses have had and will continue to have an adverse effect on our stockholders equity and working capital.

We anticipate incurring additional losses and negative cash flow from operations for the foreseeable future. We are not currently generating revenues, and we cannot estimate with precision the extent of our future losses. We do not currently have any products that are available for commercial sale, we may never generate significant revenue from selling products or achieve profitability and we may never resume the development of the ELAD System or complete the development of any other product candidates. We do not have a product candidate that has been approved for marketing in the United States or elsewhere, and we may never receive any such approval. Our two most recent clinical trials, VTI-208 and VTL-308, failed to reach both their primary and secondary endpoints. Our only product in development is our normothermic liver perfusion program, which is too early in development to assess its product value or potential product sales. If we do develop or acquire other product candidates, we would expect our research and development expenses to increase significantly. If we do acquire a new product candidate and successfully develop and obtain regulatory approval for it, we also expect to incur significant sales and marketing expenses.

We have suspended most of our research and development activities to reduce operating expenses while we continue to pursue closing of the Transaction and efforts to sell assets. We expect to continue to incur significant

Table of Contents

expenses and operating losses for the foreseeable future as we evaluate these strategic alternatives and continue our efforts to close the Transaction.

As a result of these factors, we expect to continue to incur significant operating losses and negative cash flows for the foreseeable future. These losses have had and will continue to have a material adverse effect on our stockholders equity, financial position, cash flows and working capital. We are uncertain when or if we will achieve profitability and, if so, whether we will be able to sustain it. Our ability to produce revenue and achieve profitability is dependent on our ability to complete the development of product candidates, obtain necessary regulatory approvals, and to successfully manufacture and market products. We cannot assure you that we will ever be profitable even if we successfully enter into strategic transactions or commercialize products. Failure to become and remain profitable or the perception that we may never become profitable would adversely affect the market price of our common stock and our ability to raise capital and continue operations.

Although we have suspended most of our research and development activities, if we resume the clinical development of any product candidates, we would need to obtain additional financing to fund our operations and, if we were then unable to obtain such financing, we may be unable to complete the development and commercialization of any potential product candidates.

We have a history of incurring losses and negative cash flows from operations and have an accumulated deficit of $335.0 million through September 30, 2018. Based on our current employees, our known commitments, and our ongoing administrative costs to explore and pursue strategic options, we believe that our existing cash and cash equivalents of $17.8 million as of September 30, 2018 should be sufficient to meet our known liabilities and commitments as of September 30, 2018; however, we expect our resource requirements to change materially to the extent we identify and enter into any other strategic transactions. To advance the development of product candidates, we would need to obtain additional financing and increase our expenditures.

Adequate additional funding may not be available to us on acceptable terms, or at all. If we are unable to raise capital when needed or on attractive terms, we would be forced to delay, reduce or eliminate any potential future research and development programs or potential future commercialization efforts. Our forecast of the period of time through which our financial resources will be adequate to support our operating requirements is a forward-looking statement and involves risks and uncertainties, and actual results could vary as a result of a number of factors, including the factors discussed elsewhere in this *Risk Factors* section. We have based this forecast on a number of assumptions that may prove to be wrong, and changing circumstances beyond our control may cause us to consume capital more rapidly than we currently anticipate.

Our future funding requirements will depend on many factors, including, but not limited to:

- the timing and structure of any strategic options that are being considered by us, including the Transaction and any potential asset sales;
- our ability to establish new collaborations, licensing or other arrangements and the financial terms of such agreements;
- the number and characteristics of any future product candidates we pursue (if any);

the timing and progress in the development of our normothermic liver perfusion program;

the scope, progress, results and costs of research and development and future clinical trials, if any, related to the ELAD System or other product candidates;

the cost and timing of any regulatory submissions;

the cost and timing of scaling up and validating the manufacturing process for the ELAD System or any other potential product candidates for commercialization;

the cost and timing of commercialization activities, including reimbursement, marketing, sales and distribution costs, both before and after product approval (if any);

Table of Contents

- the costs involved with being a public company;
- the cost timing and outcome of any future litigation;
- the costs involved in preparing, filing, prosecuting, maintaining, defending and enforcing patents, including litigation costs and the outcome of such litigation; and
- the timing, receipt and amount of sales of, or royalties, if any, on the ELAD System and any future product candidates.

We may finance future cash needs through public or private equity offerings, license agreements, debt financings, collaborations, strategic alliances, marketing or distribution arrangements or a combination thereof. Additional funds may not be available when we need them on terms that are acceptable to us, or at all. General market conditions or the market price of our common stock may not support capital raising transactions such as an additional public or private offering of our common stock or other securities. In addition, our ability to raise additional capital may be dependent upon our stock being quoted on The Nasdaq Stock Market, or Nasdaq, or upon obtaining stockholder approval. On October 25, 2018, we received a letter from the staff of Nasdaq providing notification that, for the previous 30 consecutive business days, the closing bid price for our common stock was below the minimum $1.00 per share requirement, or the Bid Price Requirement, for continued listing on Nasdaq. The notification had no immediate effect on the listing of our common stock. In accordance with Nasdaq listing rules, we were afforded 180 calendar days, or until April 23, 2019, to regain compliance with the Bid Price Requirement. There can be no assurance that we will be able to satisfy the criteria for continued listing on Nasdaq or that we will be able to obtain stockholder approval, if it is necessary, to take the steps needed to remedy the Bid Price Requirement. If our common stock is delisted, this would, among other things, substantially impair our ability to close the Transaction and limit our strategic alternatives, and result in fewer development opportunities. If adequate funds are not available, we may be required to close our operations.

We may seek to access the public or private capital markets whenever conditions are favorable, even if we do not have an immediate need for additional capital at that time. In addition, if we raise additional funds through collaborations, strategic alliances or marketing, distribution or licensing arrangements with third parties, we may have to relinquish valuable rights to our technologies, future revenue streams or product candidates or to grant licenses on terms that may not be favorable to us. Our inability to obtain additional funding when we need it could seriously harm our business.

If we resume the clinical development of any product candidates, additional capital that we may need to operate or expand our business may not be available.

We may require additional capital to operate or expand our business. The failure of the VTL-308 clinical trial to meet its primary or secondary endpoints may make it very difficult for us to seek and obtain financing from the capital markets on favorable terms, or at all. If we raise additional funds through the issuance of equity or convertible securities, the percentage ownership of holders of our common stock could be substantially diluted and these newly issued securities may have rights, preferences or privileges senior to those of holders of our common stock. Furthermore, volatility in the credit or equity markets may have an adverse effect on our ability to obtain debt or equity financing or the cost of such financing. If we do not have funds available to enhance any potential product candidates, maintain the competitiveness of our technology and pursue business opportunities, this could have an adverse effect on our business, operating results and financial condition.

Our ability to use our net operating losses to offset future taxable income may be subject to certain limitations.

As of December 31, 2017, we had net operating loss, or NOL, carryforwards of approximately $167.7 million and $200.8 million (prior to our adjustments for uncertain tax positions), net of estimated limitations caused by certain ownership changes under Section 382 of the Internal Revenue Code, for federal and state income tax purposes, respectively. In general, under Section 382, a corporation that undergoes an ownership change is

subject to limitations on its ability to utilize its pre-change NOLs and its tax credit carryforwards. We believe our existing NOLs and tax credit carryforwards are subject to limitations arising from previous ownership changes, and if we undergo any further ownership changes, such as in connection with the Transaction, our ability to utilize NOLs and tax credit carryforwards could be further limited. Future changes in our stock ownership, some of which are outside of our control, could also result in additional ownership changes under Section 382. The strategic options that we are pursuing, including the Transaction, will create an ownership change under Section 382 of the Internal Revenue Code, which would limit all or substantially all of our NOLs and tax credit carryforwards. Furthermore, our ability to utilize NOLs and tax credit carryforwards of companies that we may acquire in the future, if any, may be subject to limitations.

Furthermore, in 2013, California adopted a single factor, sales, for apportioning income and losses to the state. Although completely offset by our valuation allowance, we had recognized NOL and tax credit carryforwards from 2013 through 2017 based on a multiple factor apportionment based on salaries, property and sales in the state. This position was based on prior court rulings supporting the use of the multiple factor apportionment. This ruling was overturned by the California Supreme Court in December 2015, and, in October 2016, the U.S. Supreme Court declined to hear the case. California has no regulations or guidance nor have there been any rulings addressing how a company with no sales should apportion losses to California. As most of our operations are in California, we have filed our tax returns using a multiple factor apportionment until such time as California provides a ruling or guidance on such an apportionment. For these reasons and due to the limitations discussed above, we likely will not be able to utilize all or substantially all of such NOLs and tax credit carryforwards, even if we attain profitability.

We conduct business and file income tax returns in various tax jurisdictions. Our tax position could be adversely affected by several factors, many of which are outside of our control. For example, in the U.S., recently enacted U.S. tax reform in December 2017 commonly referred to as the Tax Cuts and Jobs Act, or the Tax Act, may have a negative impact on our business. In addition, it is possible that further changes to the U.S. tax code and the tax rules in the other jurisdictions could occur in the near future. Although we monitor these developments, it is not possible to assess to what extent changes may be implemented in the U.S. and other jurisdictions in which we conduct our business, what impact they may have on the way in which we conduct our business, or how they may impact our effective tax rate due to the unpredictability and interdependency of these potential changes. Even though we maintain a full valuation allowance to offset our NOLs and tax credit carryforwards, changes in tax laws and related regulations and practices could have a material adverse effect on our business operations, cash flows, effective tax rate, financial position and results of operations and likelihood of consummating a strategic transaction.

Our internal computer systems, cloud-based systems and those systems previously used, or that may in the future be used, by our clinical investigators, contract research organizations or other contractors or consultants may fail or suffer security breaches, which could result in a material disruption of any of our development programs.

We rely on information technology systems to keep financial records, maintain laboratory information, clinical data and corporate records, communicate with staff and external parties and operate other critical functions. Despite the implementation of security measures, our internal computer systems, cloud-based systems and those systems previously used, or that may in the future be used, by us, our clinical investigators, clinical research organizations, or CROs, and other contractors and consultants are vulnerable to damage from computer viruses, unauthorized access, natural disasters, cyber-attacks, terrorism, war, and telecommunication and electrical failures. The techniques that could be used to attack these computer systems are sophisticated, change frequently and may originate from less regulated and remote areas of the world. As a result, we may not be able to address these risks proactively or implement adequate preventative measures. While, to our knowledge, we have not experienced any significant system failure, theft of information, accident or security breach to date, if such an event were to occur and cause interruptions in our operations, it could result in a material disruption of any clinical development or manufacturing activities. For

example, the loss of clinical trial data could result in delays

Table of Contents

in future regulatory approval efforts and significantly increase costs to recover or reproduce the data. To the extent that any disruption, theft of information, or security breach were to result in a loss of or damage to data or applications, or inappropriate disclosure of confidential or proprietary information, we could incur liability and any future clinical development or other development of product candidates could be delayed.

In the recent past, we have been involved in securities litigation, and defending against such litigation or an adverse resolution of such litigation may adversely affect our business, financial condition, results of operations and cash flows and ability to consummate strategic transactions.

Our industry is characterized by frequent claims and litigation, including claims regarding patent or other intellectual property rights, as well as product liability. Additionally, in the past, companies that experience volatility in the market price of their stock have been subject to securities class action litigation. For example, following our announcement that the ELAD System, our sole product candidate, failed to meet its primary and secondary endpoints in our VTI-208 phase 3 clinical trial, we became the subject of a lawsuit alleging securities law violations. Although this litigation was dismissed, this type of litigation can be expensive and disruptive to normal business operations and divert management s attention, and the outcome can be difficult to predict regardless of the facts involved. We are at a heightened risk of, and could be subject to, additional litigation following our announcement in September 2018 that the ELAD System failed to meet its primary and secondary endpoints in our VTL-308 phase 3 clinical trial. An unfavorable outcome with respect to a lawsuit could have a material adverse effect on our business, financial condition, results of operations or cash flows and ability to consummate strategic transactions.

Risks Related to the ELAD System s or other Product Candidates Potential Future Clinical Development

If we resume the clinical development of any product candidates, we have limited experience in conducting pivotal clinical trials used to support regulatory approval, and our prior clinical trials of the ELAD System did not demonstrate a statistically significant improvement in survival, the primary endpoint that was needed to support regulatory approval.

Our VTI-208 phase 3 randomized, controlled, open-label trial evaluating the ELAD System in subjects primarily with severe alcoholic hepatitis, or sAH, failed to meet the primary endpoint of overall survival through at least 91 days assessed using the Kaplan Meier statistical method. Our protocol for our subsequent clinical trial of the ELAD system in sAH, VTL-308, incorporated limits on subjects age, model for end-stage liver disease score, or MELD score, and its three components. While the endpoints and populations for VTL-308 were derived from results of our prior studies, including the results of VTI-208, and based on medical literature, in none of those prior studies had we demonstrated a statistically significant effect on the population based on the endpoints prospectively described in the study plan. Our prior clinical trials of the ELAD System in sAH did not demonstrate statistically significant improvement over standard of care in the primary endpoint of survival through at least study day ninety-one. Similarly, our prior clinical trials of the ELAD System in fulminant hepatic failure, or FHF, did not demonstrate statistically significant improvement in the primary endpoint of 28-day survival. In September 2018, we announced that the VTL-308 clinical trial failed to meet both its primary and secondary endpoints. The lack of statistical significance from these previous trials could be attributed to various factors, including the lack of power to demonstrate significance, the design of the studies and the lack of an ELAD System treatment benefit.

If we resume the clinical development of the ELAD System or any of our product candidates, any positive results from previous clinical trials may not be predictive of future results.

Any positive results from our prior clinical trials, including either statistical significance in some endpoints or trends towards statistical significance in other endpoints, should not be relied upon as evidence that our potential future

clinical trials will necessarily succeed. For example, our primary endpoint in VTL-308 was based on the results of a subset of subjects in our VTI-208 clinical trial. Additionally, our primary endpoint in VTI-208 was

Table of Contents

based on the results of a subset of subjects in our VTI-206 clinical trial. Although these subsets showed a trend toward increased survival up to at least study day ninety-one, the subsequent trials still failed to meet their primary and secondary endpoints. The FDA has noted its belief that this preliminary clinical evidence did not indicate that our product may demonstrate a substantial improvement over standard of care. We cannot provide any guarantee that any potential future clinical trials of any product candidates will provide statistically significant data sufficient to support regulatory approval.

Random variation or changes in standard of care could cause any potential future clinical trials to be delayed and/or fail.

Regulatory authorities worldwide have adopted the standard that, to gain marketing approval, clinical trials should produce a result that has less than a 5% probability of being due to random variation. There is no assurance that any of our potential future clinical trials will meet that standard. In addition, we have designed all of our past clinical trials to be judged by a survival primary endpoint, which may have been difficult to achieve for many reasons, including unanticipated survival rates of control subjects due to random variations, deficiencies in our exclusion and inclusion criteria, and the standard of care of the subjects, which may vary from site to site and country to country and is continuously evolving. Such difficulties may continue in any potential future clinical trials.

Any of these factors, which are beyond our control, could materially and adversely affect the results of any potential future trials and prevent us from gaining regulatory approval of any product candidates. In addition, even if the results of any potential future clinical programs are positive, our inability to control or adequately account for these factors between treatment arms could cause the FDA or other regulatory authorities to determine that the results are not adequate, or must be reproduced in a confirmatory study, to support marketing approval.

If we resume clinical development, the ELAD System treatment could result in significant clinical risks to the patient, including death.

The ELAD System therapy was targeted toward very sick patients who were likely to die if left untreated. Patients with liver failure resulting from acute hepatocellular insult quickly develop failure of other organs including lungs, kidney, brain, and blood coagulation systems. Patients who received the ELAD System therapy were at risk of dying due to other serious health problems even if the ELAD System was demonstrated to be effective.

All extracorporeal therapy systems, including the ELAD System, cause a decline in blood platelets, which can lead to coagulation problems and uncontrolled bleeding because platelets are critical to clot formation. Patients with liver failure generally have serious blood clotting problems since the liver produces almost all of the body s blood clotting proteins. These patients therefore have wide variations in their ability to coagulate their blood. To minimize blood clotting issues during ELAD treatment, some subjects require an infusion of anti-coagulants, which can aggravate bleeding. Because every subject is different, the need for anti-coagulant therapy is variable and must be closely monitored during ELAD System therapy. The risk of uncontrolled bleeding may be treated during the ELAD System therapy by administering platelet transfusions or by administering blood coagulation factors. However, there have been cases of uncontrolled bleeding during and after the ELAD System therapy. Additionally, some patients have abnormal red blood cells, which have weakened cell walls subject to rupture by physical force, a process known as hemolysis. The physical force exerted on the red blood cells by the ultrafiltrate generator in the ELAD System line can, in some cases, be enough to cause overt mechanical hemolysis that resolves after ELAD treatment is stopped, but can result in death if it continues too long. The incidence of hemolysis was less than 0.5% in subjects enrolled in our prior clinical trials, and one patient died in our China trial as a result of hemolysis.

Data from our prior clinical trials suggest that ELAD treatment should not be used in subjects with acute kidney injury (defined as a serum creatinine level of greater than or equal to 1.5 mg/dL). The use of extracorporeal

Table of Contents

systems such as ELAD may cause harm in patients with pre-existing kidney injury because these subjects are at an increased risk to develop fluid overload due to the renal impairment. Furthermore, ELAD treatment should be stopped if a patient develops any indication for renal replacement therapy, because patients with renal impairment are less likely to be able to tolerate the increased stresses associated with two extracorporeal devices requiring high venous flow rates.

Similarly, data from our prior clinical trials suggest that ELAD treatment should not be used in subjects with severe coagulopathy (problems with blood clotting, defined as an International Normalized Ratio, or INR, of greater than 2.5). The use of extracorporeal systems such as ELAD may cause harm in patients with pre-existing severe coagulopathy because the circulation of blood outside the body can cause a depletion in circulating factors associated with the blood clotting cascade, and reductions in the number of circulating platelets in the blood which are required for the blood to clot properly. As a result, subjects on extracorporeal systems such as ELAD are at an increased risk to develop bleeding issues.

Human liver-derived C3A cells have been shown in animal studies to have the capacity to grow into a tumor mass under certain conditions. While it is possible that some VTL C3A cells could escape from the ELAD cartridges and cause tumors in patients or produce substances that could lead to the development of malignant tumors, it is expected within the natural medical history of this population of patients with chronic liver disease (whether caused by hepatitis B or alcohol) that a certain incidence of cancer will be reported. There was no evidence that the incidence or type of cancer was different between the ELAD and the control group in our study in China. There have been two reported cancers (rectal cancer and squamous cell carcinoma) in our extended follow-up of ELAD-treated subjects from the VTI-208 study and there have been no such reported cases of cancer in VTL-308. These or other adverse events, even those that are currently unforeseen, could significantly affect any potential future development and commercialization efforts, cause the regulatory authorities to place any potential future clinical trials on hold or to refuse to grant or maintain any potential future marketing approval or result in withdrawal of the ELAD System from the market in the event that development of the ELAD System is resumed and ultimately receives marketing approval.

Due to ethical considerations, we have conducted open-label clinical trials of the ELAD System, where control subjects do not receive a sham treatment, and this could introduce unacceptable bias into any future trial results.

We did not conduct our VTI-208, VTI-210, VTI-212 or VTL-308 clinical trials with a sham control extracorporeal circuit that includes empty cartridges. This is due to the potential harm that the extracorporeal circuit can cause to control subjects without the potential for any benefit, which makes it unethical to subject the controls to a sham. Although regulatory agencies agree that, due to the nature of the ELAD System therapy, it is not possible to conduct a blinded study, they have expressed concern that the open-label nature of the study design may introduce significant bias in the treatment of the ELAD System or control subjects, since the study subject, physicians and caregivers know who has and has not received the ELAD System therapy. We had developed a protocol that attempted to minimize this bias to the extent possible, including defining a protocol-specific standard of care, specifying steroid treatment, standardizing the discharge criteria for both the ELAD-treated and control subjects, requiring that follow-up visits are conducted by a blinded reviewer, ensuring home healthcare nurses and other clinical personnel are unaware of treatment assignment, educating subjects not to reveal treatment assignment to their caregivers and monitoring concomitant medications, alcohol recidivism and interaction with the healthcare system to provide evidence that there is no meaningful difference between the groups that might have significantly confounded the trial data. However, there is no guarantee that bias will not enter into any potential future clinical trial, affect the results of such trials or cause regulatory agencies to refuse marketing approval of the ELAD System or any other product candidates.

47

Table of Contents

If we resume the clinical development of any product candidates, and if we encounter difficulties enrolling subjects, any potential future clinical trials could be delayed or otherwise adversely affected.

Clinical trials for the ELAD System required us to identify and enroll a large number of subjects that met all of the entry criteria set forth in our protocols, including having the disease under investigation. If we resume the development of any product candidates and conduct any future clinical trials, we may not be able to enroll a sufficient number of subjects who meet our protocol requirements in a timely manner. Subject enrollment is affected by numerous factors, many of which fall outside of our control, including:

- the size and nature of the subject population;
- timeliness of contracting with clinical trial sites, and obtaining approval of the trial by the applicable institutional review boards, or IRBs, or ethics committees;
- lack of a sufficient number of subjects who meet the enrollment criteria for potential future clinical trials;
- perceived risks and benefits of the product candidate under study;
- availability of competing therapies and clinical trials;
- efforts to facilitate timely enrollment in clinical trials;
- scheduling conflicts with participating clinicians; and
- proximity and availability of clinical trial sites and resources for prospective subjects.

In light of results and disclosures of our prior clinical trials by us or others, it is possible that subjects will be less willing to participate in any potential future trials. Even if we were to identify an appropriate subject population for a clinical trial, there can be no assurance that the subjects will elect to enroll in the study or complete the study. These difficulties could negatively impact any potential future clinical trials.

If we have difficulty enrolling a sufficient number of subjects to conduct any potential future clinical trials or if enrolled subjects fail to complete the study or comply with our protocols, particularly with regard to follow-up appointments, the completion of any potential future clinical trials would be delayed, and our business would be harmed.

If we resume the clinical development of any product candidates, we may face delays in completing any potential future clinical trials, and we may be required to suspend, repeat or terminate any potential future clinical trials if they are not conducted in accordance with applicable regulatory requirements, the results are negative or inconclusive, or the clinical trials are not well-designed or executed as expected.

Any potential future clinical trials must be conducted in accordance with regulations governing clinical studies, and are subject to oversight by the FDA, foreign governmental agencies, ethics committees and IRBs at the medical institutions where the clinical trials are conducted. In addition, clinical trials may require large numbers of test subjects. Changes in regulatory requirements may occur at any time, and we may need to amend clinical trial protocols to reflect such changes. In addition, we may voluntarily amend our protocols, as we did for our VTI-210 clinical trial. Amendments may require us to resubmit any potential future clinical trial protocols to ethics committees or IRBs for reexamination, which may impact the costs, timing or successful completion of the underlying trial.

Any potential future clinical trials may require amendment or be delayed, not approved, unsuccessful or terminated as a result of many factors, including:

- delays or failures in designing an appropriate clinical trial protocol with sufficient statistical power and in reaching agreement on trial design with investigators and regulatory authorities;

Table of Contents

delays or failure in reaching agreement on acceptable terms with prospective CROs and clinical trial sites, the terms of which can be subject to extensive negotiation and may vary significantly among different CROs and trial sites;

delays or failure by CROs, investigators and clinical trial sites in ensuring the proper and timely conduct of any potential future clinical trials;

delays or failure by us in manufacturing sufficient quantities of product pursuant to required quality standards and by third-party manufacturers in supplying the product or necessary and suitable components;

delays or failure in transporting products to clinical trial sites with sufficient rapidity to enable treatment to begin early enough to have an opportunity for clinical benefit;

delays or failure in completing data analysis and achieving primary and secondary endpoints;

delays in subject enrollment or site initiation, including in light of, among other things, our prior clinical results;

regulators or clinical site ethics committees or IRBs may not approve or may delay, suspend or terminate clinical research for various reasons, including noncompliance with regulatory requirements or concerns about subject safety;

we may suspend or terminate any potential future clinical trials if we believe our product is exposing the participating subjects to unacceptable health risks or for other reasons;

subjects may not complete any potential future clinical trials due to safety issues, adverse events, inconvenience or other reasons;

subjects in any potential future clinical trials may die or suffer other adverse events for reasons that may be either related or unrelated to our product;

we may have difficulty in maintaining contact with subjects after treatment, preventing us from collecting the data required by our study protocol; and

final analysis of the data from any potential future clinical trials may conclude that such product candidate lacks sufficient clinical efficacy or presents unacceptable safety risks, such as occurred with the VTL-308 clinical trial.

Due to the failure of VTI-208 and VTL-308 to provide evidence of safety and efficacy sufficient to satisfy the requirements of the regulatory authorities, we do not expect the ELAD System to be approved unless we are able to perform additional clinical trials showing such safety and efficacy.

Risks Related to Regulatory Matters

If we resume the clinical development of any product candidates, the FDA regulatory approval process is complex, time-consuming and inherently unpredictable. In addition, the failure of our VTL-308 and VTI-208 clinical trials may adversely affect the attitude of regulatory authorities toward any potential future development of the ELAD System.

Potential future clinical development, manufacturing, labeling, storage, record-keeping, advertising, promotion, import, export, marketing and distribution is subject to extensive regulation by the FDA. In the U.S., the ELAD System has been regulated by the FDA as a combination biologic and medical device. Before a biologic product can be marketed in the U.S., we must submit, and the FDA must approve, a Biologics License Application, or BLA. In addition, for a combination biologic and medical device, the device components must be found acceptable as part of the BLA. The regulatory review process for a novel therapy is complex, time-consuming and unpredictable. As a result, development costs, timelines and approvals are not readily predictable.

The time required to obtain approval by the FDA to market a new therapy is unpredictable but typically takes many years and depends upon many factors, including the substantial discretion of regulatory authorities.

Table of Contents

Even if a product shows evidence of safety and efficacy in clinical trials, it could fail to receive regulatory approval for many reasons, including the following:

- the FDA may disagree with the design or implementation of the clinical trials or the study endpoints. For example, in our ELAD clinical trials, the FDA had expressed concern about the open-label design and multiplicity of confounding variables, including the need for delineating the standard of care that both the treated and control groups received during our studies;

- we may be unable to demonstrate to the satisfaction of the FDA that our product is safe and effective for its proposed indications or that the product provides significant clinically relevant benefits or that the benefits outweigh the safety risks;

- the results of a clinical trial may not meet the level of statistical significance required by the FDA for approval or may not support approval of a label that could command a price sufficient for us to be profitable;

- the FDA may disagree with our interpretation of data from any preclinical studies or clinical trials;

- the FDA may not accept clinical data from trials which are conducted outside their jurisdiction;

- the opportunity for bias in any potential future clinical trials as a result of the open-label design may not be adequately handled and may cause any potential future trial to fail;

- the product may be subject to an FDA advisory committee review, which is triggered by an FDA request and is solely within the FDA s discretion, which may result in unexpected delays or additional hurdles to approval;

- the FDA may determine that the manufacturing processes at our facilities or facilities of third-party manufacturers with which we contract for clinical and commercial supplies are inadequate;

- even if a future clinical trial is successful in demonstrating a statistically significant improvement over standard of care, in light of the fact that certain confounding factors may be viewed by the FDA as limiting the persuasiveness of the study results, a single successful phase 3 clinical trial may not be sufficient to provide the substantial evidence of effectiveness necessary to support regulatory approval, and therefore we may need more than one additional phase 3 clinical trial to secure regulatory approval;

- the approval policies or regulations of the FDA may significantly change in a manner rendering any future clinical data insufficient for approval; and

the failure of prior clinical trials could result in more stringent requirements being imposed by regulatory bodies and advisory groups.

The FDA expressed concern with our past phase 3 clinical trials that to the extent there are significant differences in how treated and control subjects are treated during the study and after discharge from the hospital, the study may not be able to provide convincing evidence of safety and efficacy. For example, differences in length of hospital stay, rates of hospital re-admission, alcohol recidivism rates, nutritional support, and concomitant medications could significantly confound the reported study results.

In addition, even if we were to obtain approval following any potential future clinical trials, the FDA may grant approval contingent on the performance of costly post-marketing clinical trials, or may approve a label that does not include the labeling claims necessary or desirable for successful commercialization. Any of the above could materially harm a product s commercial prospects.

If we begin or resume the clinical development of any biologic product candidates, we do not have, and may never obtain, the regulatory approvals we need to market our product.

In responding to a BLA, the FDA may require additional testing or information, may require that the product labeling be modified, may impose a post-approval study and other commitments or reporting requirements or

Table of Contents

other restrictions on product commercialization, or may deny the application. The FDA has established performance goals for review of BLAs; however, the FDA is not required to complete its review within these time periods. The timing of final FDA review and action varies greatly, but can take years in some cases and may involve the input of an FDA advisory committee of outside experts. Sales of the product in the United States may commence only when the BLA is approved. To date, we have not applied for or received the regulatory approvals required for the commercial sale of any product.

In light of the clinical results from our VTL-308 clinical trial, we do not believe that the ELAD System can be approved for marketing for sAH in the U.S. or Europe, if ever, without additional clinical trials that would require substantial capital and time to complete. Therefore, the ELAD System may never be approved for marketing.

If we resume the development of any product candidates, the FDA may or may not grant an accelerated or Priority Review to any potential future BLA, if requested by us, and even if the FDA designates Priority Review for any product candidate, that designation would not assure FDA approval and may not even lead to a faster regulatory review or approval process.

On the date the FDA receives an original BLA submission, a 60 calendar day filing review period starts. Assuming the FDA accepts the submission for filing, a ten-month standard BLA review clock begins, which means the FDA has an aggregate twelve months from its receipt of the original submission to take regulatory action. We may be eligible for Priority Review for a BLA submission if the FDA determines that the product candidate, if approved, would provide a significant improvement in safety or effectiveness. A six-month Priority Review clock would begin at the conclusion of the 60 calendar day filing review period that starts on the date of FDA receipt of the original BLA submission. Therefore, if Priority Review is granted, the FDA has a total of eight months to take action on an application as opposed to the standard timeline of twelve months. We may request Priority Review if we were to submit a BLA; however, the FDA has broad discretion whether or not to grant Priority Review even if we believe a product is eligible. Moreover, even if a product is designated for Priority Review, such a designation does not assure a faster regulatory review process or confer any advantage with respect to FDA approval. Moreover, a designation of Priority Review or even a standard review from the FDA does not guarantee approval within the eight-month or twelve-month review period, respectively, or at any time thereafter. Accordingly, we cannot assure you that any future BLA will be approved in a timely manner, or at all.

If we resume the development of any product candidates, the regulatory approval processes of foreign regulatory authorities are complex, time-consuming and inherently unpredictable.

Outside the U.S., our ability to market a product is contingent upon receiving marketing authorizations from appropriate regulatory authorities. If any potential future clinical programs were to be successful, we would anticipate submitting applications for marketing authorization in Europe and other foreign countries based on need. The requirements governing the conduct of clinical trials, marketing authorization, pricing and reimbursement vary widely from country to country, and we may be unable to meet such requirements. If the regulatory authority is satisfied that adequate evidence of safety, efficacy, and quality has been presented, a marketing authorization should be granted. The foreign regulatory approval process involves all of the risks associated with FDA approval.

If any product candidate receives regulatory approval, we will be subject to ongoing regulatory requirements and may face regulatory or enforcement action.

If any product receives regulatory approval, we will be subject to significant ongoing regulation by the FDA and other regulatory authorities, including regulation of our manufacturing operations and any third-party manufacturing operations to ensure our compliance with applicable current Good Manufacturing Practices, or cGMP, and/or Quality

System Regulation, or QSR, requirements for post-approval clinical data, adverse event

Table of Contents

reporting and complaint handling, and advertising and promotional activities. Failure to comply with regulatory requirements may subject us to sanctions. These may include warning letters, adverse publicity, civil and criminal penalties, injunctions, product seizures or detention, and refusal to approve pending product marketing applications.

Our employees, independent contractors, principal investigators, CROs, consultants and vendors may engage in misconduct or other improper activities, including non-compliance with regulatory standards and requirements, and insider trading.

We are exposed to the risk that our employees, independent contractors, principal investigators, CROs, consultants and vendors may engage in fraud, misconduct or other illegal activity or that they do not comply with regulatory standards and requirements. Misconduct or non-compliance by these parties could include intentional, reckless and/or negligent conduct or unauthorized activities that violate (1) FDA regulations, including those laws that require the reporting of true, complete and accurate information to the FDA, (2) quality standards, including Good Laboratory Practices, or GLP, Good Clinical Practice, or GCP, and cGMP, (3) federal and state healthcare fraud and abuse laws and regulations, (4) laws that require the reporting of true and accurate financial information and data, (5) securities laws and regulations, (6) the federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, or (7) General Data Protection Regulation. If we were to obtain FDA approval of any future product candidate and begin commercializing that product in the United States, our potential exposure under such laws would increase significantly, and our costs associated with compliance with such laws would also be likely to increase. In particular, research, sales, marketing, education and business arrangements in the healthcare industry are also subject to extensive laws and regulations intended to prevent fraud, kickbacks, self-dealing and other abusive practices. These laws and regulations may restrict or prohibit a wide range of pricing, discounting, marketing and promotion, sales commission, customer incentive programs and other business arrangements. Activities subject to these laws also involve the improper use of information obtained in the course of subject recruitment for clinical trials, which could result in regulatory sanctions and cause serious harm to our reputation. We have adopted a code of business conduct and ethics, but it is not always possible to identify and deter misconduct by employees and third parties. We may fail to identify and deter misconduct or non-compliance by employees and third parties, or the precautions we take to detect and prevent this activity may not be effective in controlling unknown or unmanaged risks or losses or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to be in compliance with such laws or regulations. If any such actions are instituted against us, and we are not successful in defending ourselves or asserting our rights, those actions could have a significant impact on our business, including the imposition of changes to or even the halt of any potential future clinical trials or manufacturing or civil, criminal and administrative penalties, damages, monetary fines, possible exclusion from participation in Medicare, Medicaid and other federal healthcare programs, contractual damages, reputational harm, diminished profits and future earnings, and curtailment of our operations, any of which could adversely affect our ability to operate our business and our results of operations.

Risks Related to the Medical Device Components of the ELAD System or Any of Our Products

If we or our third-party manufacturers fail to comply with QSR in the U.S. or Medical Device Directives and Standards in Europe, our business would suffer.

We are required to demonstrate and maintain compliance with applicable regulations for the manufacturing of combination biologic products, including specified parts of the QSR and European Medical Device Directives, or MDD, with respect to any biological product candidates. Our third-party medical device manufacturers are required to demonstrate and maintain compliance with the QSR and MDD. The QSR and MDD are complex regulatory schemes that cover the methods and documentation of and for the design, testing, control, manufacturing, labeling, quality assurance, packaging, storage and shipping of the regulated products. Regulatory agencies enforce the QSR and MDD through periodic inspections. Prior to any potential approval of any such product in the U.S. and Europe, our

manufacturing facility would be subject to a preapproval inspection to

determine compliance with the applicable regulations, including cGMPs, parts of the QSR, the European drug cGMP regulations, and the MDD. In addition, our third-party medical device component manufacturers would be subject to a preapproval inspection to determine compliance with QSR and MDD requirements. Our failure, or the failure of our third-party manufacturers, to pass a preapproval inspection, or to take satisfactory and prompt corrective action in response to an adverse inspection, could prevent or significantly delay approval of any product.

The ELAD System bedside unit is based on a cardio-pulmonary bypass system that was replaced with an updated system, and regulatory authorities may not view the systems as interchangeable, which could cause regulatory approvals to be significantly delayed should we resume development of ELAD for new indications.

The ELAD System bedside unit was originally based exclusively on the LivaNova (formerly Sorin) Stöckert Perfusion System S3 Double Head Pump Module, a medical device indicated for use during cardio-pulmonary bypass surgery. All or part of our early clinical trials were carried out using an ELAD System bedside unit based on LivaNova s S3 system. However, LivaNova stopped selling the S3 system and replaced it with an updated S5 system. We carried out testing of an ELAD System bedside unit based on the S5 and we believe that the S3 and S5 systems are equivalent and interchangeable from a clinical and regulatory perspective. We have submitted information to both the U.S. and the European regulatory authorities to support equivalence. Both the S3 and S5 systems were used in our VTI-208, VTI-210 and VTL-308 clinical trials. There can be no assurance that regulatory authorities will continue to view the S3 and S5 systems interchangeably, or that LivaNova would cooperate with us or provide us with the documentation necessary for inclusion in a BLA submission, if any, which would be required to obtain regulatory approval of our ELAD System. If regulatory authorities do not view the S3 and S5 systems as equivalent, or LivaNova fails to provide the information necessary for inclusion in our regulatory filings, future development and approval of the ELAD System, if any, may be significantly delayed or prevented. In addition, effective January 1, 2018, LivaNova no longer supports its S3 systems. Accordingly, if a future trial is undertaken and successful, we would expect to commercialize ELAD with only the LivaNova S5 system.

One of the ELAD System component suppliers was subject to an FDA consent decree, which could have forced us to find another supplier for this component.

One of the components of the ELAD System bedside unit is manufactured by Terumo Cardiovascular Systems, or Terumo. In March 2011, Terumo entered into a consent decree with the FDA which limited its ability to ship products from certain of its manufacturing facilities including the one that manufactures the component we used in our prior clinical trials. We received notice from Terumo in June 2016 that all restrictions listed in the 2011 consent decree were lifted. If we had been unable to source the component we use from Terumo, we would have had to source the component from an alternative supplier. If Terumo or another component supplier has similar issues in the future, there is no guarantee that a qualified alternative supplier can be found that will agree to terms reasonably acceptable to us on a timely basis or at all. This and similar situations with other suppliers could significantly delay the development of future products.

In the development of combination biologic and device products, changes in any of the device components could affect our ability to complete any future clinical trials or to obtain and maintain approval and commercialization efforts.

The device components of the ELAD System must be reviewed as part of any BLA for ELAD. If the manufacturers of those components make modifications, discontinue supplying or are unable to supply sufficient quantities of such components during any potential clinical testing or after any approval, or if we elect to change a component, we would need to perform validation testing and obtain FDA and other regulatory approval prior to using the modified or replacement component. For example, one of our suppliers of a key component in our manufacturing process was

having an issue meeting all of their customer orders for the component. If we were unable to obtain sufficient quantities of the component on a timely basis, there could have been a delay in

Table of Contents

enrollment in our clinical trial or, following an approval, in the marketing of ELAD until additional supplies became available, or we would be required to validate an alternative component to use, which could delay any clinical trials or the marketing of a product, and increase our costs. If the FDA or any other regulatory body fails to approve use of those modified or replacement devices or if we were unable to validate a replacement component, we would not be able to initiate or complete clinical trials or, in the future, we might not be able to market or could have to suspend marketing in certain jurisdictions.

If we determine to resume the clinical development of ELAD, we may be unable to demonstrate that devices cleared for different uses may be safe and effective for use in the ELAD System.

Most device components of the ELAD System have been previously cleared for use by the FDA or other regulatory authorities. However, in many instances, we would be using the components outside the scope of their cleared indications. Other device components have no regulatory approvals. If we resume development of the ELAD System, we may need to conduct additional testing to bridge the differences between the cleared indications for use and its use in the ELAD System in order to obtain any approval, or we could be required to obtain separate clearance for one or more of the components used in the ELAD System. The failure to provide adequate bridging information or to obtain separate clearance of these device components for use in the ELAD System, if required, could delay or prevent an approval of the ELAD System should further development of the ELAD System be pursued.

Risks Related to the Cellular Products and Related Components

If we fail to comply with cGMPs, our business will suffer.

We are required to demonstrate and maintain compliance with cGMPs. The cGMPs describe the methods to be used in, and the facilities or controls to be used for, the manufacture, processing, packing, or holding of a biologic to assure the biologic meets the requirements for safety, and has the quality, purity, and potency characteristics that it purports or is represented to possess. Regulatory agencies enforce these requirements through periodic inspections. Prior to any potential approval of any such product, our manufacturing facilities would be subject to a preapproval inspection to determine compliance with U.S. and European cGMPs and applicable QSR and MDD requirements or other foreign regulatory agencies. Our failure to pass such an inspection, or take satisfactory and prompt corrective action in response to an adverse inspection, could prevent or significantly delay approval of such a product.

In the manufacture of products, we rely on third party suppliers, and in many instances, a single third party supplier, for critical components, and these suppliers could cease to manufacture the components, go out of business or otherwise not perform as anticipated.

While the growth of VTL C3A cells for ELAD is under our control, the manufacture of all of the other parts and components of the ELAD System have been undertaken by third party suppliers. We have previously relied on a single source of supply for many critical components, including components of the ELAD System bedside unit, the ultrafiltrate generator cartridges, the media we use to grow and ship our VTL C3A cells, the cartridges in which our VTL C3A cells are grown, the final cell filter cartridges and the bioreactors that have been developed to grow and store the ELAD cartridges. We have investigated additional sources of supply for some of these components to support any potential future clinical development and, ultimately, commercialization of the ELAD System. If we fail to develop additional sources of supply, and a single source of supply of a critical component of the ELAD System were to become unavailable, our ability to develop or to initiate commercialization of the ELAD System would be severely compromised should we determine to pursue the further development of ELAD for new indications or geographical regions. In addition, we have relied on third party suppliers for the safety of products of human and animal origin that are incorporated in the ELAD System production process, and these suppliers could cease to

manufacture the components, inadequately test these components, go out of business or otherwise not perform as anticipated. We do not have long-term agreements with our suppliers, and we will have

Table of Contents

to purchase components on a purchase order basis. For components that are not readily available from other sources, we would be subject to the risks that our suppliers will raise their prices or impose other terms or conditions that are less favorable or unacceptable to us if we resume development of the ELAD System.

For instance, bovine serum, which is a component of the cell growth media, is used in the manufacture of the ELAD System cartridges. It is obtained from an outside supplier. We are wholly reliant on the guarantee of our supplier that the calf serum used in our manufacturing procedures is free of transmitted animal viruses and other pathogens. Should the source of supply become infected, or the supplier become unable to continue to supply calf serum of the quality necessary to support human use, or the regulations change such that the calf serum cannot be used for human use, we would have to find alternative sources of supply and manufacturing methods, for which there is no guarantee of success.

Human albumin and Trypsin-EDTA are also used in the manufacture of ELAD System cartridges and are each provided by a single supplier. In addition, while these products were tested to be free of contamination by the supplier, we cannot guarantee that will always continue to be the case.

If our facility becomes inoperable, we will be unable to continue manufacturing any product candidate and as a result, our business will be harmed until we are able to secure a new facility.

We have manufactured our biologic product and assembled the device component at our facility in San Diego, California. No other manufacturing or assembly facilities are currently available to us, and any additional manufacturing or assembly facilities that we might use would need to be qualified and approved by regulatory authorities prior to our use. Our facility and the equipment would be costly to replace and could require substantial lead time to repair or replace. The facility may be harmed or rendered inoperable by natural or man-made disasters, including fire, earthquakes, flooding and power outages, which may render it difficult or impossible for us to perform our research, development and manufacturing for some period of time. The inability to perform our manufacturing activities, combined with our limited inventory of reserve raw materials and manufactured supplies, could result in the delay of any potential future clinical trials.

We often rely on third parties for certain aspects of the manufacture of our clinical products and supplies. Our business could be harmed if those third parties fail to provide us with sufficient quantities of product or fail to do so at acceptable quality levels or prices or if they encounter other manufacturing issues.

We would expect to use third parties for certain parts of our production process for any products developed. This would expose us to a number of risks, including the following:

- We may be unable to identify manufacturers on acceptable terms or at all because the number of potential manufacturers is limited and the FDA must approve any manufacturers. This approval would require new testing and good manufacturing practices compliance inspections by the FDA. In addition, a new manufacturer would have to be educated in, or develop substantially equivalent processes for, production of any potential future products.

- Any third-party manufacturers might be unable to timely manufacture the components and custom materials and supplies we require, or to produce the quantity and quality required to meet our needs.

Contract manufacturers may not be able to execute or comply with our manufacturing procedures and other logistical support requirements appropriately.

Any contract manufacturers may not perform as agreed, may not devote sufficient resources to us, or may not remain in the contract manufacturing business and alternative manufacturers that can meet our requirements may be difficult to identify and qualify on a timely basis, if at all.

Manufacturers are subject to ongoing periodic unannounced inspections by the FDA and corresponding state agencies to ensure strict compliance with current good manufacturing practices and other

Table of Contents

government regulations and corresponding foreign standards. We do not have control over third-party manufacturers compliance with these regulations and standards, and they are also subject to the same ongoing periodic unannounced inspection. Any license to manufacture product candidates will be subject to continued regulatory review. Failure to meet such standards could result in the need to take corrective actions and even withdrawal of product from the market.

We may not own, or may have to share, the intellectual property rights to any improvements made by our third-party manufactures in the manufacturing process, or in the manufacture of the custom materials used in the manufacture thereof.

Any third-party manufacturers could breach or terminate their agreement with us.

Any contract manufacturers may have unacceptable or inconsistent product quality, success rates and yields.

The actual cost to manufacture and process any future product candidates could materially and adversely affect their commercial viability.

Any manufacturers may experience manufacturing difficulties due to resource constraints and labor disputes, as well as natural or man-made disasters.

Each of these risks could delay or prevent the completion of any potential future clinical trials or the approval of any future product by the FDA, result in higher costs, or adversely impact commercialization. If our contract manufacturers are unable to successfully produce any components or any related supplies for potential future clinical trials or commercialization, potential future clinical trials or potential future commercial efforts would be impaired, which would have an adverse effect on our business, financial condition, results of operations and growth prospects.

We forecast the requirements for components and materials used in our products and, if our forecasts are incorrect, we may experience delays in shipments or increased inventory costs.

In the past, we have kept limited materials, components and, if applicable, finished product on hand. To manage our manufacturing operations with our suppliers, we forecast anticipated product orders and material requirements to predict our future inventory needs and enter into purchase orders on the basis of these requirements. Our limited historical experience may not provide us with enough data to accurately predict our future needs. Many of our components are medical devices, which have fixed future expiration dates. If we overestimate our component and material requirements, we will have excess inventory, which may have to be disposed of if it exceeds approved expiration dates, which would increase our expenses. If we underestimate our component and material requirements, we may have inadequate inventory, which could interrupt, delay or prevent delivery of any products. Any of these occurrences would negatively affect our financial performance and the level of satisfaction any potential customers or partners have with our business.

We may not be able to grow cells used in our products reliably and cost-effectively.

Operations with human cells, even a stable, cell line such as the VTL C3A cells, which are used in the ELAD System, can be subject to conditions and influences that we may not be able to control. Although our VTL C3A cells are stored

at three separate locations in the U.S. and the United Kingdom, or UK, it is possible that all three locations could be destroyed and we could lose all or a portion of our cell banks. It is also possible that the cells will simply cease to function. While we take precautions to prevent this from happening, we could encounter unforeseen complications. To date, we have only produced the small number of the ELAD cartridges required to support our prior clinical trials. If we were to resume development of the ELAD System and needed to increase production to support demand, we could experience significant scale-up issues, which may cause quality and cost problems and our business could be materially harmed.

Table of Contents

Cellular therapy is complex, and we may not ever have a complete understanding of the mechanism of action of any cellular therapy.

Cellular therapy is a complex treatment with multiple variables that are not fully understood. For example, our VTL C3A cells, which were used in the ELAD cartridges produce hundreds of metabolites. Likewise, the plasma ultrafiltrate formed from blood, which has been treated by our VTL C3A cells in our ELAD cartridges, is a similarly complex material. The composition and stability of the treated blood can also be affected by the conditions of its generation in the ELAD System bedside unit, which could affect treatment outcomes. For instance, while most subjects treated with the ELAD System typically only required a single set of cartridges, some subjects required more than one set during their treatment period, which may have implications for efficacy and costs. While we believed that we had identified the key parameters of the ELAD System VTL C3A cartridges and set them in an appropriate range, it was possible that there were other variables that were important to safety and efficacy that were not anticipated.

Likewise, our past research into the potential mechanism of action for the ELAD System remains unproven and may never be proven. The ELAD System s mechanism of action appears complex, may involve numerous pathways and we may not succeed in ever elucidating the exact role of any given pathway. Moreover, our research on mechanism of action was primarily based on laboratory studies, and needed correlation with *in vivo* studies and patient outcomes.

Risks Related to Doing Business Internationally

If we were to do business internationally, it may prove to be difficult and fraught with economic, regulatory and political issues.

If we were to commercialize the ELAD System or any other product in countries where the business, economic and political climates are very different from those of the U.S., we may not be aware of some of these issues, and it may be difficult for a U.S. company to overcome these issues and ultimately become profitable. For instance, we completed our Chinese pivotal clinical trial in 2007 and submitted our data to the China Food and Drug Administration, or CFDA, showing a statistically significant improvement in transplant-free survival among the ELAD System-treated subjects compared with control subjects. However, this application has been neither approved nor rejected and the timing and nature of any potential decision is highly uncertain. Moreover, currency controls are in effect in many foreign countries and could become much tighter in the future, which will hinder our ability to repatriate any profits or capital. These foreign countries may also favor businesses that are owned by nationals of those countries as opposed to foreign-owned businesses operating locally. As a small company, we may not have the resources to engage in the negotiation and time-consuming work needed to overcome some of these potential issues.

In the event that we were to receive any marketing approval in foreign countries outside of the U.S. and Europe, we could create wholly-owned subsidiaries or work with a partner in those countries or in a region. These subsidiaries will need to build an effective sales, marketing, distribution, training and support staff and system, find an effective marketing partner or both. Any internal sales, marketing, training and support capabilities of the subsidiaries will need to be developed by these subsidiaries and will need to be built from scratch. The culture and accepted practices related to selling medical products in many foreign countries are unique, and it is possible that we will not be able to successfully penetrate these markets. A similar consideration applies to selling in the U.S., since each medical system is very different and requires a different strategic approach. We cannot guarantee that our approach to the U.S., European, Chinese or any other international market will be effective.

The medical systems in many foreign countries are very different from that of the U.S. and could cause significant problems for the ELAD System if foreign commercialization is pursued.

If we were to resume development and ultimately pursue foreign commercialization of ELAD, the medical systems in many countries around the world would pose challenges to the commercialization of the ELAD

Table of Contents

System. For instance, most medical care in China is delivered on a private pay basis, and it may be difficult to receive payment for the ELAD System therapy delivered or the price of our product, which we expect to be relatively high, may prove to be beyond the capability of the targeted Chinese patient to pay. Further, as we have encountered in our prior clinical trials, the standard and the operation of the delivery of care in China are different, causing problems with the operation of the ELAD System therapy. These issues include the withholding of necessary medicines, the inadequate staffing of Chinese hospitals, the shortage of blood products, the differing practice of delivery of extracorporeal therapies, and the attitude of physicians and nurses. These issues and others are likely to occur in other countries around the world and there is no assurance that we could overcome these challenges or succeed in commercializing the ELAD System or any other product in any foreign country.

If we were to pursue foreign commercialization we would face increased risks of doing business due to the extent of our operations internationally.

If we were to pursue foreign commercialization, these efforts may be through wholly-owned, foreign domiciled subsidiaries. Our efforts to expand internationally pose risks that could adversely affect our business. These risks include, among others, the effects of:

- fluctuations in foreign currency exchange rates and controls;
- economic weakness, including inflation, or political instability in particular non-U.S. economies and markets;
- differing and changing regulatory requirements in non-U.S. countries;
- challenges enforcing our contractual and intellectual property rights, especially in those foreign countries that do not respect and protect intellectual property rights to the same extent as the United States;
- negative consequences from changes in tax laws;
- difficulties associated with staffing and managing international operations, including differing labor relations;
- potential liability under the Foreign Corrupt Practices Act or comparable foreign laws;
- business interruptions resulting from geo-political actions or natural disasters including earthquakes, typhoons, floods and fires;

competitive disadvantages to established foreign businesses with significant current market share and business and customer relationships;

nationalization;

tax and regulatory policies of local governments and the possibility of trade embargoes;

political instability, war, terrorism, or other hostilities; and

laws and policies of the U.S. and foreign governments affecting foreign trade and investment.

Any of these risks could cause significant interruptions in potential future operations, which would adversely affect our ability to commercialize products internationally and our financial condition, results of operations and business.

Revenues, profits and cash flows derived in foreign countries by foreign subsidiaries may be denominated in foreign currency. The value of this currency may be controlled or adjusted periodically by foreign governments, and may be subject to changes in political and economic conditions.

Table of Contents

Foreign economic, political and social conditions and government policies could materially and adversely affect our business.

If we were to pursue foreign commercialization, a significant portion of our potential future operations may be conducted in foreign countries and it is possible that a significant percentage of our revenues may be derived from these countries. Accordingly, our results of operations, financial condition and prospects would be subject, to a significant degree, to economic, political, legal and social developments around the world. The economies of many of these countries differ from the economy of the U.S. in many respects, including:

level of government involvement;

economic structure;

allocation of resources;

level of development;

inflation rates;

growth rate; and

control of foreign exchange.

The legal systems in many foreign countries have inherent uncertainties that could limit the legal protections available to us.

We are subject to the laws and regulations of foreign governments, including those applicable to foreign investment and, in particular, laws applicable to wholly foreign-owned enterprises. Any litigation in these countries may be protracted and may result in substantial costs and diversion of resources and management attention. For example, in 2007, one of our clinical sites in China was sued in connection with the death of a subject of our clinical trial. An expert panel concluded that neither the ELAD System nor the clinical site was at fault and dismissed the lawsuit. Nevertheless, we were later informed that the subject s family had been awarded approximately $100,000 in a subsequent civil proceeding brought against the clinical site. We ultimately decided to reimburse the clinical site for $100,000, which was partially insured. In addition, these countries may enact new laws or amend current laws that may be detrimental to us, which may have a material adverse effect on our business operations.

We have limited business insurance coverage internationally.

The insurance industry in many parts of the world is still in an early stage of development. Insurance companies in many countries offer only limited business insurance options. As a result, we may not be able to maintain any liability, hazard or other insurance covering our services, business, operations, errors, acts or omissions, personnel or properties

in all of the countries in which we have operations. To the extent that we are unable to recover from others for any uninsured losses, such losses could result in a loss of capital and significant harm to our business. If any action, suit, or proceeding is brought against us and we are unable to pay a judgment rendered against us or defend ourselves against such action, suit, or proceeding, our business, financial condition and operations could be negatively affected.

We must comply with the U.S. Foreign Corrupt Practices Act and similar foreign anti-corruption laws.

The U.S. Foreign Corrupt Practices Act, to which we are subject, prohibits corporations and individuals from engaging in certain activities to obtain or retain business or to influence a person working in an official capacity. It is illegal to pay, offer to pay or authorize the payment of anything of value to any foreign government official, government staff member, political party or political candidate in an attempt to obtain or retain business or to otherwise influence a person working in an official capacity. Other countries, such as the UK and China, have

similar laws with which we must comply. Although we attempt to rigidly adhere to the requirements of the U.S. Foreign Corrupt Practices Act and all similar laws to which we are subject, there remains the risk that an employee or agent of ours could be accused of violating one or more of these laws, particularly in geographic regions where significant overlap exists between local government and healthcare industries. Such an accusation, even if unwarranted, could prove disruptive to our developmental and commercialization efforts if such efforts are resumed.

We could be subject to additional income and other tax liabilities.

We are subject to income and other taxes in the U.S. and may be subject to income and other taxes in various other foreign jurisdictions. Significant planning is required in evaluating a worldwide provision for income and other taxes. During the ordinary course of business, there may be transactions for which the ultimate tax determination is uncertain. We may be subject to audit in various jurisdictions and such jurisdictions may assess additional income or other tax against us. Although we may believe our tax positions are reasonable, the final determination of tax audits and any related litigation could be materially different from our historical income tax provisions and accruals. The results of an audit or litigation could have a material and adverse effect on our operating results or cash flows in the period or periods for which that determination is made.

The United Kingdom s impending departure from the European Union could adversely affect our business.

The United Kingdom held a referendum in June 2016 in which a majority of voters voted to exit the European Union, or Brexit. Negotiations are underway to determine the future terms of the United Kingdom s relationship with the European Union, including, among other things, the terms of trade between the United Kingdom and the European Union as well as other world trading partners. The effects of Brexit will depend on any agreements the United Kingdom makes to retain access to European Union markets either during a transitional period or more permanently. Brexit could adversely affect European and worldwide economic and market conditions and could contribute to instability in global financial and foreign exchange markets, including volatility in the value of the sterling and euro. In addition, Brexit could lead to legal uncertainty and potentially divergent national laws and regulations as the United Kingdom determines which European Union laws to replace or replicate, including laws that could impact any potential future clinical trials and our ability to obtain approval of our products or sell our products in the United Kingdom. Any of these effects of Brexit, and others we cannot anticipate, could adversely affect our business, results of operations, financial condition and cash flows.

Risks Related to Our Intellectual Property

Our patent rights may prove to be an inadequate barrier to competition.

We hold a patent in the U.S. which claims a method of using C3A cells to treat a patient s blood, which we believe covers the ELAD System therapy. In addition, we hold another U.S. patent with claims covering an extracorporeal device configuration, which we believe includes our ELAD System, independent of the cell-type used. Foreign counterparts of these patents have been issued or allowed in Australia, Brazil, Canada, Europe, Indonesia, Israel, Japan, Mexico, New Zealand, Singapore, South Africa, South Korea, the Philippines and Taiwan and remain under review in certain jurisdictions, including but not limited to Europe, Hong Kong and India. In addition to these two U.S. patents, we hold one additional patent in the U.S. However, the lifespan of any one patent is limited and each of these patents will ultimately expire, and we cannot be sure that pending applications will be granted, or that we will discover new inventions which we can successfully patent. Moreover, any of our granted patents may be held invalid by a court of competent jurisdiction, and any of these patents may also be construed narrowly by a court of competent jurisdiction in such a way that it is held to not directly cover the entire ELAD System or treatment. Furthermore, even if our patents are held to be valid and of broadly enforceable scope, third parties may find legitimate ways to compete

with the ELAD System by inventing around our patents to avoid claims of patent infringement. Finally, the process of obtaining new patents is lengthy and expensive, as is the process for enforcing patent rights against an alleged infringer. Any such

Table of Contents

litigation could take years, cost large sums of money and pose a significant distraction to management. Indeed, certain jurisdictions outside of the U.S. and Europe have a history of inconsistent, relatively lax or ineffective enforcement of patent rights. In such jurisdictions, even a valid patent may have limited value. Our failure to effectively enforce our patents would likely have a harmful impact on our ability to potentially commercialize the ELAD System in these jurisdictions.

We do not hold any patents covering our VTL C3A cells or the production processes we used to grow the VTL C3A cells in the ELAD cartridges.

C3A cells are publicly available and the proprietary methods and production process that we use to grow our VTL C3A cells in the ELAD cartridges are our trade secrets, but they are not currently covered by a patent and no patents are pending. Although we have sought patent protection for certain aspects of our technology, such as our method of using human liver-derived C3A cells to treat a patient s blood, and we have obtained orphan designation in the U.S. and Europe for the use of C3A cells to treat acute liver failure, we have not sought patent protection for the proprietary methods we use to grow VTL C3A cells. Although we believe that some of these methods may be patentable, we prefer to avoid the disclosure requirements inherent in the patenting process, as such disclosure could provide competitors with insights that allow them to invent around any granted patents. We believe that this concern is particularly appropriate since C3A cells are publicly available, and have been available for research purposes for more than twenty years. Despite this availability, we are not aware of any third parties who have either demonstrated an ability to grow C3A cells in the quantities we do, or have succeeded in treating a human subject with such cells. In addition, patent protection expires 20 years after the application s priority date which does not apply to trade secret protection. In light of the foregoing, we do not currently contemplate seeking patent protection for our production methods and instead intend to keep our production methods protected as trade secrets, which does not require us to publicly disclose these methods and which is not subject to a formal expiration date. However, trade secrets are vulnerable to inadvertent disclosure and misappropriation. In addition, independent discovery and publication of these methods by third parties, which is feasible given the public availability of C3A cells, would also destroy their trade secret protection. If any of these were to occur, our business may be harmed.

We protect much of our intellectual property as trade secrets. Confidentiality agreements with employees and third parties may not prevent unauthorized disclosure of trade secrets and other proprietary information.

Trade secrets offer a relatively limited form of protection as they do not create any barrier for third-parties who independently develop this information and who may even patent the information. In the course of our research and development activities and our business activities, we often rely on confidentiality agreements to protect our proprietary information. Such confidentiality agreements may be used, for example, when we talk to vendors of laboratory or clinical development services or potential strategic partners. In addition, each of our employees is required to sign a confidentiality agreement upon joining us. We take steps to protect our proprietary information, and our confidentiality agreements are carefully drafted to protect our proprietary interests. Nevertheless, there can be no assurance that an employee or an outside party will not make an unauthorized disclosure of our proprietary confidential information. This might happen intentionally or inadvertently. It is possible that a competitor will make use of such information, and that our competitive position will be compromised, in spite of any legal action we might take against persons making such unauthorized disclosures. Enforcing a claim that a third party illegally obtained and is using any of our trade secrets is expensive and time consuming, and the outcome is unpredictable. In addition, courts outside the U.S. sometimes are less willing than U.S. courts to protect trade secrets. Moreover, our competitors may independently develop equivalent knowledge, methods and know-how, which would harm our business.

If our ELAD cartridges or our VTL C3A cells are stolen, misappropriated or reverse engineered, others could produce competing products.

Third parties, including those previously involved in, or that may in the future be involved in, shipping our ELAD System cartridges or in any manufacturing abroad that we may undertake, often have custody or control

Table of Contents

of our ELAD cartridges. If our ELAD cartridges, or VTL C3A cells from our proprietary VTL C3A cell bank that are stored to grow in these cartridges, were stolen, misappropriated or reverse engineered, they could be used by other parties who may be able to reproduce these cartridges for their own commercial gain. If this were to occur, it would be difficult for us to challenge this type of use, especially in countries with limited intellectual property protection or in countries in which we do not have patents covering the misappropriated ELAD cartridges. In such instance, our business would be harmed.

Ownership of our intellectual property may be claimed by others.

The ELAD System has been under development for over 20 years and certain of our predecessor companies have filed for reorganization and bankruptcy. We were founded in 2003 by acquisition of the assets of a prior company after a bankruptcy. While we believe we have performed extensive diligence on the ownership of the intellectual property rights and have developed our own innovative technology which is independent of prior intellectual property rights, there could be claims by parties associated with the prior entities that could lead to costly and time consuming legal actions. In addition, we have engaged in collaborations with third parties where intellectual property has been developed. In one instance, we were engaged in a dispute over the ownership of intellectual property when a collaborator of ours pursued patent rights over technology which we believe we may have held rights to under the collaboration agreement. Although a patent which claims a different configuration than our ELAD System was ultimately issued in the U.S. to our former collaborator, we do not hold any rights to this patent. We are unaware of any active development with respect to the claimed system. Other such disputes could arise in the future or emerge from past activities which could lead others to claim our intellectual property.

We may be involved in future costly intellectual property litigation, which could impact our future business and financial performance.

Our industry has been characterized by frequent intellectual property litigation. Our competitors or other patent holders may assert that our ELAD System and the methods we employ are covered by their patents. For instance, we are aware of other patents issued in the liver support field which we believe do not cover our ELAD System or its use. If our ELAD System or methods are found to infringe any valid patents, we could be prevented from marketing our ELAD System, if our efforts to develop ELAD are resumed. In addition, we do not know whether our competitors or potential competitors have applied for, or will apply for or obtain, patents that will prevent, limit or interfere with our ability to make, use, sell, import or export our ELAD System.

Litigation related to infringement and other intellectual property claims, with or without merit, is unpredictable, can be expensive and time-consuming and could divert management s attention from our core business. If we lose this kind of litigation, a court could require us to pay substantial damages, and prohibit us from using technologies essential to our ELAD System, any of which would have a material adverse effect on our business, results of operations and financial condition. We do not know whether necessary licenses would be available to us on satisfactory terms, or whether we could redesign our ELAD System or processes to avoid infringement.

Competing products may also appear in other countries in which our patent coverage might not exist or be as strong. If we lose a foreign patent lawsuit, we could be prevented from marketing our ELAD System in one or more countries, if efforts to develop ELAD are resumed.

In addition, we may hereafter become involved in litigation to protect our trademark rights associated with our company name or the names used with our ELAD System. Names used with our ELAD System and procedures may be claimed to infringe names held by others or to be ineligible for proprietary protection. If we have to change the name of our company or our ELAD System, we may experience a loss in goodwill associated with our brand name,

customer confusion and a loss of sales, if any.

Table of Contents

We may be subject to damages resulting from claims that we or our employees have wrongfully used or disclosed alleged trade secrets owned by third parties.

Many of our employees were previously employed at universities or other life science companies, including our competitors or potential competitors. Although no claims against us are currently pending, we may be subject to claims that these employees or we have inadvertently or otherwise used or disclosed trade secrets or other confidential or proprietary information of their former employers. Litigation may be necessary to defend against these claims. If we fail in defending such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights or personnel. A loss of key personnel could hamper our ability to develop and commercialize the ELAD System, which could severely harm our business. Even if we are successful in defending against these claims, litigation could result in substantial costs and be a distraction to management.

Risks Related to Our Capital Requirements and Finances

We have limited resources to fund our operations and may need to raise additional capital in conjunction with and as a result of our pursuit of strategic alternatives.

We have a history of incurring losses and negative cash flows from operations and have an accumulated deficit of $335.0 million through September 30, 2018. Based on our current employees, our known commitments, and our ongoing administrative costs to explore and pursue strategic options, we believe that our existing cash and cash equivalents of $17.8 million as of September 30, 2018 should be sufficient to meet our known liabilities and commitments as of September 30, 2018. We have based this estimate on assumptions that may prove to be wrong, and we could utilize our available capital resources sooner than we currently expect. The timing and amount of our actual expenditures will be based on many factors, including, but not limited to, whether and when the Transaction closes, future research and development efforts if any, other strategic options that we may pursue, and any unforeseen cash needs which may deplete current cash and cash equivalents sooner than planned.

As a result of our liquidity needs, vendors and other key contract counterparties may be reluctant to enter into contracts with us if they believe we may not be able to satisfy our obligations. In addition, there is no assurance that we will be able to obtain additional funding when and if needed on acceptable terms or at all. If we are not able to secure adequate additional funding, we would be required to make further reductions in certain spending to extend current funds, we may have to liquidate some or all of our assets, delay, reduce the scope of, or eliminate some or all of any development programs or even close our operations.

We may also have to delay development of any potential products or license to third parties the rights to our products or technology that we would otherwise seek to develop. Our inability to enter into such contracts or raise additional funding would adversely affect our business, liquidity, financial condition, results of operations and cash flows.

To conserve capital, we may undertake additional workforce and cost reduction activities in the future. These activities may cause us to be unable to fully support and manage our operations.

In September 2015, and again in September 2018, we instituted across the board expense reductions to conserve capital, and we may, in the future, need to undertake additional workforce reductions or restructuring activities. As a result of the reduction in our workforce, we face an increased risk of employment litigation. We also need to effectively manage our operations and facilities. Following our recent workforce reduction in September 2018, it is possible that our infrastructure may be inadequate to support our future efforts and business strategy or to maintain operational, financial and management controls and reporting systems and procedures. If we cannot successfully manage our operations, we may be unsuccessful in executing our business strategy, including potential strategic

options, including the Transaction.

Table of Contents

Our future capital needs are uncertain, and we may need to raise additional funds in the future.

We may need to raise substantial additional capital to:

- pursue strategic options for the company;
- complete any potential future clinical trials and related regulatory applications;
- fund our operations;
- commence and expand the commercialization of any products we may acquire; and
- further our research and development.

Our future funding requirements will depend on many factors, including:

- the cost, timing and structure of any potential strategic options that we pursue;
- the cost of any future research and development activities;
- the cost and timing of any future clinical development activities;
- the cost of filing and prosecuting patent applications;
- the cost of defending litigation or any claims that we infringe third-party patents or violate other intellectual property rights;
- the cost and timing of regulatory clearances or approvals, if any;
- the cost and timing of establishing sales, marketing and distribution capabilities;
- the cost and timing of establishing additional technical support capabilities;

market acceptance of any products;

the effect of competing technological and market developments; and

the extent to which we acquire or invest in businesses, products and technologies, although we currently have no significant commitments or agreements relating to any of these types of transactions.

We may not be able to obtain additional funds on acceptable terms, or at all. If we raise additional funds by issuing equity securities, our stockholders will experience dilution. Debt financing, if available, may involve covenants restricting our operations or our ability to incur additional debt. Any debt or additional equity financing that we raise may contain terms that are not favorable to us or our stockholders. If we raise additional funds through collaboration and licensing arrangements with third parties, which we have no prior experience in, it may be necessary to relinquish rights to our technologies or our products, or grant licenses on terms that are not favorable to us. If we are unable to raise adequate funds, we may have to liquidate some or all of our assets, delay, reduce the scope of or eliminate some or all of any potential future development programs or close our operations.

If we do not have, or are not able to obtain, sufficient funds, we may have to delay development of any potential products or license to third parties the rights to develop our products or technologies that we would otherwise seek to develop. We also may have to reduce marketing, customer support or other resources devoted to our products or cease operations. Any of these factors could harm our operating results.

Raising additional funds through debt or equity financing is likely to be challenging, could be highly dilutive and may cause the market price of our common stock to decline.

To the extent that we raise additional capital through the sale of equity or convertible debt securities, the issuance of those securities could result in substantial dilution for our current stockholders and the terms may include

Table of Contents

liquidation or other preferences that adversely affect the rights of our current stockholders. Furthermore, the issuance of additional securities, whether equity or debt, by us, or the possibility of such issuance, may cause the market price of our common stock to decline further and existing stockholders may not agree with our financing plans or the terms of such financings. The failure of the VTI-208 and VTL-308 clinical trials to meet their primary or secondary endpoints, in addition to general market conditions, may make it very difficult for us to seek and obtain further financing from the capital markets on favorable terms, or at all. There is no assurance that we will be able to obtain additional funding on acceptable terms or at all.

In order to raise required funds we may choose to enter into one or more collaborations. Such collaborations could require us to give up substantial rights to the ELAD System in the U.S. and/or outside the U.S.

We may choose to enter into one or more collaborations in order to resume the development of the ELAD System. These collaborations could require us to relinquish substantial rights, potentially including the grant of an exclusive license to make, use and sell the ELAD System, to another company.

Risks Related to Being a Public Company

Our common stock may be delisted from The Nasdaq Global Market if we are unable to maintain compliance with Nasdaq s continued listing standards.

The Nasdaq Global Market imposes certain continued listing standards including minimum bid and public float requirements. On October 25, 2018, we received a letter from Nasdaq providing notification that, for the previous 30 consecutive business days, the closing bid price for our common stock was below the minimum $1.00 per share requirement, or the Bid Price Requirement, for continued listing on The Nasdaq Global Market. The notification had no immediate effect on the listing of our common stock. In accordance with Nasdaq listing rules, we were afforded 180 calendar days, or until April 23, 2019, to regain compliance with the Bid Price Requirement. If we are unable to regain compliance, Nasdaq may determine to delist our common stock. If our common stock is delisted, this would, among other things, substantially impair our ability to raise additional funds to sustain our operations and could result in the loss of institutional investor interest, limit our strategic alternatives, and result in fewer development opportunities.

The requirements of being a public company may strain our resources, divert management s attention and affect our ability to attract and retain executive management and qualified board members.

As a public company, we are subject to the reporting requirements of the Securities Exchange Act of 1934, or the Exchange Act, the Sarbanes-Oxley Act, the Dodd-Frank Act, the listing requirements of The Nasdaq Stock Market LLC and other applicable securities rules and regulations. Compliance with these rules and regulations increases our legal and financial compliance costs, makes some activities more difficult, time-consuming or costly and increases demand on our systems and resources, and even more so after we are no longer an emerging growth company, as defined in the Jumpstart Our Business Startups Act, or the JOBS Act. The Exchange Act requires, among other things, that we file annual, quarterly and current reports with respect to our business and operating results. The Sarbanes-Oxley Act requires, among other things, that we maintain effective disclosure controls and procedures and internal control over financial reporting. In order to maintain and, if required, improve our disclosure controls and procedures and internal control over financial reporting to meet this standard, significant resources and management oversight are required. As a result, management s attention may be diverted from other business concerns, which could adversely affect our business and operating results. To assist us in complying with these requirements, we may need to hire more employees in the future or engage outside consultants, which will increase our costs and expenses.

In addition, changing laws, regulations and standards relating to corporate governance and public disclosure are creating uncertainty for public companies, increasing legal and financial compliance costs and making some activities more time consuming. These laws, regulations and standards are subject to varying interpretations, in

many cases due to their lack of specificity, and, as a result, their application in practice may evolve over time as new guidance is provided by regulatory and governing bodies. This could result in continuing uncertainty regarding compliance matters and higher costs necessitated by ongoing revisions to disclosure and governance practices. We intend to invest resources to comply with evolving laws, regulations and standards, and this investment may result in increased general and administrative expenses and a diversion of management s time and attention from development activities to compliance activities. If our efforts to comply with new laws, regulations and standards differ from the activities intended by regulatory or governing bodies due to ambiguities related to their application and practice, regulatory authorities may initiate legal proceedings against us and our business may be adversely affected.

For as long as we remain an emerging growth company, we may take advantage of certain exemptions from various reporting requirements that are applicable to public companies that are not emerging growth companies including, but not limited to, not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act, reduced disclosure obligations regarding executive compensation and financial statements in our periodic reports and proxy statements, and exemptions from the requirements of holding a nonbinding advisory vote to approve executive compensation and stockholder approval of any golden parachute payments not previously approved. We will take advantage of these reporting exemptions until we are no longer an emerging growth company.

We will remain an emerging growth company until as late as December 31, 2019 (the fiscal year-end following the fifth anniversary of the completion of our initial public offering).

As a public company it is more expensive for us to maintain and obtain director and officer liability insurance, and we may be required to accept reduced coverage or incur substantially higher costs to obtain coverage. These factors may also make it more difficult for us to attract and retain qualified members of our board of directors, particularly to serve on our audit committee and compensation committee, and qualified executive officers.

Under Section 107(b) of the JOBS Act, emerging growth companies can delay adopting new or revised accounting standards until such time as those standards apply to private companies. We have irrevocably elected not to avail our company of this exemption from new or revised accounting standards and, therefore, we are subject to the same new or revised accounting standards as other public companies that are not emerging growth companies.

As a public company, we are obligated to develop and maintain proper and effective internal control over financial reporting. If we do not maintain a proper and effective system of internal control over financial reporting, or if these internal controls are determined not to be designed or operating effectively, it may adversely affect investor confidence in our company and, as a result, the value of our common stock.

We are required, pursuant to Section 404 of the Sarbanes-Oxley Act, to furnish a report by management on, among other things, the effectiveness of our internal control over financial reporting for the 2018 fiscal year. This assessment will need to include disclosure of any material weaknesses identified by our management in our internal control over financial reporting.

We have and will continue to evaluate and test our system of internal control over financial reporting. If, during the evaluation and testing process, we identify one or more material weaknesses in our internal control over financial reporting, we will be unable to assert that our internal controls are effective, which could result in a loss of investor confidence in the accuracy and completeness of our financial reports. This could cause the price of our common stock to decline, and we may be subject to investigation or sanctions by the SEC.

We are required to disclose changes made in our internal control and procedures on a quarterly basis. However, our independent registered public accounting firm will not be required to report on the effectiveness of our internal control

over financial reporting pursuant to Section 404 until we are no longer an emerging growth

Table of Contents

company pursuant to the exemptions contained in the JOBS Act. At such time, our independent registered public accounting firm may issue a report that is adverse in the event it is not satisfied that our internal controls over financial reporting are designed and operating effectively to prevent or detect a material misstatement to the financial statements.

If we do not remediate any material weaknesses in our internal control over financial reporting, the accuracy and timeliness of our financial reporting may be adversely affected.

In prior years, we had not maintained an effective control environment to ensure that the design and execution of our controls consistently resulted in effective review of our financial statements and supervision by appropriate individuals. As a result of these factors, certain misstatements in our annual financial statements for periods prior to becoming a public company were identified and brought to the attention of management by our independent registered public accounting firm for correction. We and our independent registered public accounting firm concluded that these control deficiencies constituted a material weakness in our internal control over financial reporting. A material weakness is a control deficiency, or a combination of control deficiencies, in internal control over financial reporting, indicates that there is a reasonable possibility that a material misstatement of our annual or interim condensed consolidated financial statements will not be prevented or detected on a timely basis.

Efforts to remediate the control deficiencies that led to the material weakness discussed above were completed. However, the measures we have taken to date, or any measures we may take in the future, may not be sufficient to avoid potential future material weaknesses. In addition, an independent registered public accounting firm has not performed an evaluation of our internal control over financial reporting in accordance with the provisions of the Sarbanes-Oxley Act because no such evaluation has been required. Had our independent registered public accounting firm performed an evaluation of our internal control over financial reporting in accordance with the provisions of the Sarbanes-Oxley Act, additional significant deficiencies or material weaknesses may have been identified. If we are unable to successfully remediate any significant deficiency or material weakness in our internal control over financial reporting, or identify any additional significant deficiencies or material weaknesses that may exist, the accuracy and timing of our financial reporting may be adversely affected, we may be unable to maintain compliance with securities law requirements regarding timely filing of periodic reports in addition to applicable stock exchange listing requirements, investors may lose confidence in our financial reporting, and our stock price may decline as a result.

Risks Related to our Common Stock

If securities or industry analysts do not publish research or publish unfavorable research about our business, our stock price and trading volume could decline.

The trading market for our common stock will rely in part on the research and reports that equity research analysts publish about us and our business. We are not currently aware of any securities or research analysts that are covering our business. We do not have any control of the analysts or the content and opinions included in their reports or whether any such analysts will continue to, or whether new analysts will, cover us for any given period of time. The price of our stock could decline if one or more equity research analysts downgrade our stock or issue other unfavorable commentary or research. If a research analyst ceases coverage of our company or fails to publish reports on us regularly, demand for our stock could decrease, which in turn could cause our stock price or trading volume to decline.

The market price of our common stock has been, and may continue to be volatile and fluctuate significantly, which could result in substantial losses for investors.

The market price of our common stock has been and is likely to continue to be highly volatile. Since our initial public offering in April 2014 at a price of $12.00 per share, the sale price of stock as reported on The Nasdaq

Table of Contents

Global Market has ranged from $0.15 to $32.50, through January 30, 2019. Our announcement in 2015 that the VTI-208 clinical trial failed to meet its primary or secondary endpoints resulted in a significant decline in the market price of our common stock. Then again in September 2018, our announcement that the VTL-308 clinical trial failed to meet its primary or secondary endpoints resulted in a significant decline in the market price of our common stock. Following the announcement on the morning of September 12, 2018 that our VTL-308 clinical trial failed to meet its primary or secondary endpoints, the price of our common stock dropped $5.85 per share, or 93%, from $6.30 per share as of the close of business on September 11, 2018 to $0.45 per share as of the close of business on September 12, 2018. The closing price of our common stock was $[ ] on February [ ], 2019. In addition, as with any public company, some investors hold a short position in our common stock. Such investors have published and distributed information about our company including on past and recent clinical trials. Activities by these investors may increase the volatility of the market price of our common stock, and may affect our ability to raise additional funds and to complete any potential future clinical trials or transactions.

Our stock price could be subject to wide fluctuations due to many factors, including:

- any potential strategic options that we pursue, including the Transaction;
- clinical data and government approvals relating to products in development;
- changes in governmental regulations or in the status of regulatory approvals or applications;
- disputes or other developments with respect to our intellectual property rights or the intellectual property rights of others;
- product liability claims or other litigation, including intellectual property or securities litigation;
- sales of large blocks of our common stock, including sales by our executive officers and directors;
- changes in earnings estimates or recommendations by securities analysts;
- our ability to meet investors expectations regarding our future operating performance;
- media exposure of our products or products of our competitors;
- volume and timing of sales of products;

the introduction of new products or product enhancements by us or our competitors;

our ability to develop, obtain regulatory clearance or approval for and market new and enhanced products, if any, on a timely basis;

quarterly variations in our or our competitors results of operations;

developments in our industry; and

general market conditions and other factors, including factors unrelated to our operating performance or the operating performance of our competitors.

In addition, an active and liquid market may not develop or persist, and you may not be able to sell your shares quickly or at a price that is higher than what you paid for them. These and other factors may make the price of our stock volatile and subject to unexpected fluctuations.

Sale of a substantial number of shares of our common stock by existing stockholders or by us may cause the price of our common stock to decline.

Sales of a substantial number of shares of our common stock into the public market or the perception that these sales might occur could depress the market price of our common stock and could impair our ability to raise adequate capital through the sale of additional equity securities. We are unable to predict the effect that sales may have on the prevailing market price of our common stock.

Table of Contents

In May 2018, we filed a shelf registration statement on Form S-3, or the 2018 Shelf Registration Statement, which became effective in June 2018. The 2018 Shelf Registration Statement permits: (i) the offering, issuance and sale by us of up to a maximum aggregate offering price of $200.0 million of common stock, preferred stock, warrants, debt securities, and/or units in one or more offerings and in any combination; (ii) sales of up to 2.5 million shares of common stock by certain selling stockholders; and (iii) the offering, issuance and sale by us of up to a maximum aggregate offering price of $60.0 million of our common stock that may be issued and sold under an at-the-market sales agreement, or ATM, with Cantor Fitzgerald & Co. At September 30, 2018, $200.0 million remains available for issuance and sale under the 2018 Shelf Registration Statement, $60.0 million of which may be offered, issued and sold under the ATM. However, we expect the amounts available under the shelf registration statement to be significantly limited in the future if our public float remains below $75.0 million, as measured on December 31, 2018, and our ability to use the ATM may likewise be limited or completely unavailable based on the requirements of the ATM. Additionally, funding is expected to be more difficult to secure due to our VTL-308 clinical trial not meeting its primary or secondary endpoints.

In addition, we have filed registration statements on Form S-8 registering a total of 9,634,695 shares of common stock subject to options or reserved for future issuance under our 2012 Stock Option Plan, 2014 Equity Incentive Plan and 2017 Inducement Equity Incentive Plan. Shares registered under these registration statements are available for sale in the public market subject to vesting arrangements, the exercise of such options and, in the case of our affiliates, the restrictions of Rule 144. As of September 30, 2018, options to purchase 4,473,207 shares of our common stock were exercisable.

To the extent we raise additional capital by selling and issuing common stock, convertible securities or other equity securities, it may result in material dilution to our existing stockholders and new investors could gain rights superior to our existing stockholders. Sales by us or by our current stockholders also could cause the price of our common stock to fall and make it more difficult for you to sell shares of our common stock.

Anti-takeover provisions in our amended and restated certificate of incorporation and our amended and restated bylaws, as well as Delaware law, could discourage a takeover.

Our amended and restated certificate of incorporation, bylaws, and Delaware law, contain provisions that might enable our management to resist a takeover, and might make it more difficult for an investor to acquire a substantial block of our common stock. These provisions:

- authorize our board of directors to issue, without further action by our stockholders, up to 20,000,000 shares of undesignated preferred stock;
- require that any action to be taken by our stockholders be effected at a duly called annual or special meeting and not by written consent;
- specify that special meetings of our stockholders can be called only by a supermajority (75%) vote of our directors then in office;

specify that our board of directors may amend or repeal our bylaws only pursuant to a supermajority (75%) vote of our directors then in office;

specify that our stockholders may amend or repeal our bylaws only pursuant to a supermajority (75% and majority of the minority, if applicable) vote of the outstanding shares of our capital stock;

require in general the approval of a supermajority (75% and majority of the minority, if applicable) vote of our outstanding shares of capital stock to amend or repeal certain provisions of our amended and restated certificate of incorporation;

require the approval of a supermajority (75% and majority of the minority, if applicable) vote of our outstanding shares of capital stock to approve the sale or liquidation of the company;

Table of Contents

establish an advance notice procedure for stockholder approvals to be brought before an annual meeting of our stockholders, including proposed nominations of persons for election to our board of directors;

provide that directors may be removed only for cause by a supermajority (75%) vote of our outstanding shares of capital stock;

provide that vacancies on our board of directors may be filled only by a majority of directors then in office, even though less than a quorum;

provide that in general the number of directors on our board may only be fixed from time to time by a supermajority (75%) vote of our directors then in office; and

establish that our board of directors is divided into three classes, Class I, Class II and Class III, with each class serving staggered terms.

These provisions might discourage, delay or prevent a change in control of our company or a change in our management. The existence of these provisions could adversely affect the voting power of holders of common stock and limit the price that investors might be willing to pay in the future for shares of our common stock.

Our amended and restated certificate of incorporation also contains a provision that provides us with protections similar to Section 203 of the Delaware General Corporation Law and will prevent us from engaging in a business combination with a person who acquires at least 15% of our common stock for a period of three years from the date such person acquired such common stock unless board or stockholder approval is obtained prior to the acquisitions. These anti-takeover provisions and other provisions under Delaware law could discourage, delay or prevent a transaction involving a change in control of our company, even if doing so would benefit our stockholders. These provisions could also discourage proxy contests and make it more difficult for you and other stockholders to elect or remove directors of your choosing and to cause us to take other corporate actions you desire.

We have not paid dividends in the past and do not expect to pay dividends in the future, and any return on investment may be limited to the value of our stock.

We have never paid cash dividends on our common stock and do not anticipate paying cash dividends on our common stock in the foreseeable future. The payment of dividends on our common stock will depend on our earnings, financial condition and other business and economic factors affecting us at such time as our board of directors may consider relevant. If we do not pay dividends, our stock may be less valuable because a positive return on your investment will only occur if our stock price appreciates.

Risks Related to Immunic

Risks Related to Immunic s Business and Financial Condition

Immunic has a limited operating history and has incurred significant losses since its inception and anticipates that it will continue to incur losses for the foreseeable future and may never achieve or maintain profitability. The absence of any commercial sales and Immunic s limited operating history make it difficult to assess its future viability.

Immunic is a development-stage pharmaceutical company with a limited operating history. Pharmaceutical product development is a highly speculative undertaking and involves a substantial degree of risk. Immunic is not profitable and has incurred losses in each year since its inception in 2016. Immunic has only a limited operating history upon which you can evaluate its business and prospects. In addition, Immunic has limited experience and has not yet demonstrated an ability to successfully overcome many of the risks and uncertainties frequently encountered by companies in new and rapidly evolving fields, particularly in the specialty pharmaceutical industry. Immunic has not generated any revenue to date. Immunic continues to incur significant

Table of Contents

research and development and other expenses related to its ongoing operations. Immunic s net loss for the year ended December 31, 2017 was 8.1 million (approximately $9.1 million). As of September 30, 2018, Immunic had an accumulated deficit of 15.1 million (approximately $17 million). Immunic expects to continue to incur losses for the foreseeable future as it continues its development of, and seeks marketing approvals for, its product candidates.

Immunic has devoted substantially all of its financial resources to identify, acquire, and develop its product candidates, including providing general and administrative support for its operations. To date, Immunic has financed its operations primarily through the sale of equity securities. The amount of its future net losses will depend, in part, on the rate of its future expenditures and its ability to obtain funding through equity or debt financings, strategic collaborations, or grants. Pharmaceutical product development is a highly speculative undertaking and involves a substantial degree of risk. Immunic expects losses to increase as it conducts clinical trials and continues to develop its lead product candidates. Immunic expects to invest significant funds into the research and development of its current product candidates to determine the potential to advance these product candidates to regulatory approval.

If Immunic obtains regulatory approval to market a product candidate, its future revenue will depend upon the size of any markets in which its product candidates may receive approval, and its ability to achieve sufficient market acceptance, pricing, reimbursement from third-party payors, and adequate market share for its product candidates in those markets. Even if Immunic obtains adequate market share for its product candidates, because the potential markets in which its product candidates may ultimately receive regulatory approval could be very small, Immunic may never become profitable despite obtaining such market share and acceptance of its products.

Immunic expects to continue to incur significant expenses and increasing operating losses for the foreseeable future, and its expenses will increase substantially if and as Immunic:

- continues the clinical development of its product candidates;
- continues efforts to discover new product candidates;
- undertakes the manufacturing of its product candidates or increases volumes manufactured by third parties;
- advances its programs into larger, more expensive clinical trials;
- initiates additional pre-clinical, clinical, or other trials or studies for its product candidates;
- seeks regulatory and marketing approvals and reimbursement for its product candidates;
- establishes a sales, marketing and distribution infrastructure to commercialize any products for which Immunic may obtain marketing approval and market for itself;

seeks to identify, assess, acquire and/or develop other product candidates;

makes milestone, royalty or other payments under third-party license agreements;

seeks to maintain, protect and expand its intellectual property portfolio;

seeks to attract and retain skilled personnel; and

experiences any delays or encounters issues with the development and potential for regulatory approval of its clinical candidates such as safety issues, clinical trial accrual delays, longer follow-up for planned studies, additional major studies or supportive studies necessary to support marketing approval.

Further, the net losses Immunic incurs may fluctuate significantly from quarter to quarter and year to year, such that a period-to-period comparison of its results of operations may not be a good indication of its future performance.

Table of Contents

Immunic currently has no source of product sales revenue and may never be profitable.

Immunic has not generated any revenues from commercial sales of any of its current product candidates. Immunic s ability to generate product revenue depends upon its ability to successfully commercialize these product candidates or other product candidates that it may develop, in-license or acquire in the future. Immunic does not anticipate generating revenue from the sale of products for the foreseeable future. Immunic s ability to generate future product revenue from its current or future product candidates also depends on a number of additional factors, including its ability to:

- successfully complete research and clinical development of current and future product candidates;
- establish and maintain supply and manufacturing relationships with third parties, and ensure adequate and legally compliant manufacturing of product candidates;
- obtain regulatory approval from relevant regulatory authorities in jurisdictions where Immunic intends to market its product candidates;
- launch and commercialize future product candidates for which Immunic obtains marketing approval, if any, and if launched independently, successfully establish a sales force and marketing and distribution infrastructure;
- obtain coverage and adequate product reimbursement from third-party payors, including government payors;
- achieve market acceptance for its products, if any;
- establish, maintain and protect its intellectual property rights; and
- attract, hire and retain qualified personnel.

In addition, because of the numerous risks and uncertainties associated with clinical product development, including that Immunic s product candidates may not advance through development or achieve regulatory approval, Immunic is unable to predict the timing or amount of any potential future product sales revenues. Immunic s expenses also could increase beyond expectations if Immunic decides to or is required by the FDA, or comparable foreign regulatory authorities, to perform studies or trials in addition to those that Immunic currently anticipates. Even if Immunic completes the development and regulatory processes described above, Immunic anticipates incurring significant costs associated with launching and commercializing these products.

Immunic will require substantial additional financing to obtain marketing approval of its product candidates and commercialize its product candidates, and a failure to obtain this necessary capital when needed on acceptable terms, or at all, could force Immunic to delay, limit, reduce or terminate its product development, other operations

or commercialization efforts.

Since Immunic s inception, substantially all its resources have been dedicated to the clinical development of its product candidates. As of September 30, 2018, Immunic had an accumulated deficit of 15.1 million (approximately $17.3 million) and cash and cash equivalents of 8.6 million (approximately $9.8 million). Immunic believes that it will continue to expend substantial resources for the foreseeable future on the completion of clinical development and regulatory preparedness of its product candidates, preparations for a commercial launch of its product candidates, if approved, and development of any other current or future product candidates it may choose to further develop. These expenditures will include costs associated with research and development, conducting preclinical studies and clinical trials, obtaining marketing approvals, and manufacturing and supply as well as marketing and selling any products approved for sale. In addition, other unanticipated costs may arise. Because the outcome of any drug development process is highly uncertain, Immunic cannot reasonably estimate the actual amounts necessary to successfully complete the development and commercialization of its current product candidates, if approved, or future product candidates, if any.

Immunic s operating plan may change as a result of factors currently unknown to Immunic, and it may need to seek additional funds sooner than planned, through public or private equity or debt financings or other sources,

Table of Contents

such as strategic collaborations. Such financing may result in dilution to Immunic s shareholders, imposition of debt covenants and repayment obligations, or other restrictions that may adversely affect its business. In addition, Immunic may seek additional capital due to favorable market conditions or strategic considerations even if Immunic believes it has sufficient funds for its current or future operating plans.

Immunic s future capital requirements depend on many factors, including:

- the scope, progress, results and costs of researching and developing Immunic s current product candidates, future product candidates and conducting preclinical and clinical trials;
- the cost of commercialization activities if Immunic s current product candidates and future product candidates are approved for sale, including marketing, sales and distribution costs and preparedness of its corporate infrastructure;
- the cost of manufacturing current product candidates and future product candidates that Immunic obtains approval for and successfully commercializes;
- Immunic s ability to establish and maintain strategic collaborations, licensing or other arrangements and the financial terms of such agreements;
- the number and characteristics of any additional product candidates Immunic may develop or acquire;
- any product liability or other lawsuits related to Immunic s products or commenced against Immunic;
- the expenses needed to attract and retain skilled personnel;
- the costs associated with being a public company;
- the costs involved in preparing, filing, prosecuting, maintaining, defending and enforcing its intellectual property rights, including litigation costs and the outcome of such litigation; and
- the timing, receipt and amount of sales of, or royalties on, any future approved products, if any.

Additional funds may not be available when Immunic needs them, on terms that are acceptable to Immunic, or at all. If adequate funds are not available to Immunic on a timely basis, Immunic may be required to:

delay, limit, reduce or terminate preclinical studies, clinical trials or other development activities for Immunic s current product candidates or future product candidates, if any;

delay, limit, reduce or terminate its research and development activities; or

delay, limit, reduce or terminate its establishment of sales and marketing capabilities or other activities that may be necessary to commercialize its future product candidates.

Raising additional capital may cause dilution to Immunic s existing shareholders, restrict its operations or require Immunic to relinquish rights to its technologies or product candidates.

Immunic may seek additional capital through a combination of public and private equity offerings, debt financings, strategic collaborations and alliances and licensing arrangements. To the extent that Immunic raises additional capital through the sale of equity or convertible debt securities, including the issuance of shares of capital stock in its concurrent financing in connection with the Transaction, the ownership interest of Immunic s shareholders will be diluted, and the terms may include liquidation or other preferences that adversely affect the rights of Immunic s shareholders. The incurrence of indebtedness would result in increased fixed payment obligations and could involve certain restrictive covenants, such as limitations on Immunic s ability to incur additional debt, limitations on its ability to acquire or license intellectual property rights and other operating restrictions that could adversely impact Immunic s ability to conduct its business. If Immunic raises additional funds through strategic collaborations and alliances and licensing arrangements with third parties, Immunic may have to relinquish valuable rights to its technologies or product candidates, or grant licenses on terms unfavorable to Immunic.

Table of Contents

Risks Related to the Clinical Development and Marketing Approval of Immunic s Product Candidates

The marketing approval processes of the FDA and comparable foreign authorities are lengthy, time consuming and inherently unpredictable, and if Immunic is ultimately unable to obtain marketing approval for its product candidates, its business will be substantially harmed.

None of Immunic s current product candidates have gained marketing approval for sale in the United States or any other country, and Immunic cannot guarantee that it will ever have marketable products. Immunic s business is substantially dependent on its ability to complete the development of, obtain marketing approval for, and successfully commercialize its product candidates in a timely manner. Immunic cannot commercialize its product candidates in the United States without first obtaining approval from the FDA to market each product candidate. Similarly, Immunic cannot commercialize its product candidates outside of the United States without obtaining regulatory approval from comparable foreign regulatory authorities. Immunic s product candidates could fail to receive marketing approval for many reasons, including the following:

- the FDA or comparable foreign regulatory authorities may disagree with the design or implementation of Immunic s clinical trials;
- the FDA or comparable foreign regulatory authorities may find the human subject protections for its clinical trials inadequate and place a clinical hold on an investigational new drug application, or IND, at the time of its submission precluding commencement of any trials or a clinical hold on one or more clinical trials at any time during the conduct of its clinical trials;
- Immunic may be unable to demonstrate to the satisfaction of the FDA or comparable foreign regulatory authorities that a product candidate is safe and effective for its proposed indication;
- the results of clinical trials may not meet the level of statistical significance required by the FDA or comparable foreign regulatory authorities for approval;
- Immunic may be unable to demonstrate that a product candidate s clinical and other benefits outweigh its safety risks;
- the FDA or comparable foreign regulatory authorities may disagree with Immunic s interpretation of data from preclinical studies or clinical trials;
- the data collected from clinical trials of Immunic s product candidates may not be sufficient to support the submission of an application to obtain marketing approval in the United States or elsewhere;

the FDA or comparable foreign regulatory authorities may find inadequate the manufacturing processes or facilities of third-party manufacturers with which Immunic contracts for clinical and commercial supplies; and

the approval policies or regulations of the FDA or comparable foreign regulatory authorities may significantly change in a manner that would delay marketing approval.

Before obtaining marketing approval for the commercial sale of any drug product for a target indication, Immunic must demonstrate in preclinical studies and well-controlled clinical trials and, with respect to approval in the United States, to the satisfaction of the FDA, that the product is safe and effective for its intended use and that the manufacturing facilities, processes and controls are adequate to preserve the drug s identity, strength, quality and purity. In the United States, it is necessary to submit and obtain approval of a new drug application, or NDA, from the FDA. A NDA must include extensive preclinical and clinical data and supporting information to establish the product safety and efficacy for each desired indication. The NDA must also include significant information regarding the chemistry, manufacturing and controls for the product. After the submission of a NDA, but before approval of the NDA, the manufacturing facilities used to manufacture a product candidate must be inspected by the FDA to ensure compliance with the applicable cGMP requirements. The FDA and the Competent Authorities of the Member States of the European Economic Area, or EEA, and comparable foreign regulatory authorities, may also inspect Immunic s clinical trial sites and audit clinical study data to ensure that

Table of Contents

its studies are properly conducted in accordance with the IND regulations, human subject protection regulations, and good clinical practice, or cGCP.

Obtaining approval of a NDA is a lengthy, expensive and uncertain process, and approval may not be obtained. Upon submission of a NDA, the FDA must make an initial determination that the application is sufficiently complete to accept the submission for filing. Immunic cannot be certain that any submissions will be accepted for filing and reviewed by the FDA, or ultimately be approved. If the application is not accepted for review, the FDA may require that Immunic conduct additional clinical studies or preclinical testing, or take other actions before it will reconsider Immunic s application. If the FDA requires additional studies or data, Immunic would incur increased costs and delays in the marketing approval process, which may require Immunic to expend more resources than Immunic has available. In addition, the FDA may not consider any additional information to be complete or sufficient to support the filing or approval of the NDA.

Regulatory authorities outside of the United States, such as in Europe and Japan and in emerging markets, also have requirements for approval of drugs for commercial sale with which Immunic must comply prior to marketing in those areas. Regulatory requirements can vary widely from country to country and could delay or prevent the introduction of Immunic s product candidates. Clinical trials conducted in one country may not be accepted or the results may not be found adequate by regulatory authorities in other countries, and obtaining regulatory approval in one country does not mean that regulatory approval will be obtained in any other country. However, the failure to obtain regulatory approval in one jurisdiction could have a negative impact on Immunic s ability to obtain approval in a different jurisdiction. Approval processes vary among countries and can involve additional product candidate testing and validation and additional administrative review periods. Seeking foreign regulatory approval could require additional non-clinical studies or clinical trials, which could be costly and time consuming. Foreign regulatory approval may include all of the risks associated with obtaining FDA approval. For all of these reasons, Immunic may not obtain foreign regulatory approvals on a timely basis, if at all.

The process to develop, obtain marketing approval for, and commercialize product candidates is long, complex and costly both inside and outside of the United States, and approval is never guaranteed. The time required to obtain approval by the FDA and comparable foreign authorities is unpredictable but typically takes many years following the commencement of clinical trials and depends upon numerous factors, including the substantial discretion of the regulatory authorities. In addition, approval policies, regulations, or the type and amount of clinical data necessary to gain approval may change during the course of a product candidate s clinical development and may vary among jurisdictions. Even if Immunic s product candidates were to successfully obtain approval from regulatory authorities, any such approval might significantly limit the approved indications for use, including more limited patient populations, require that precautions, warnings or contraindications be included on the product labeling, including black box warnings, require expensive and time-consuming post-approval clinical studies, risk evaluation and mitigation strategies or surveillance as conditions of approval, or, through the product label, the approval may limit the claims that it may make, which may impede the successful commercialization of its product candidates. Following any approval for commercial sale of Immunic s product candidates, certain changes to the product, such as changes in manufacturing processes and additional labeling claims, as well as new safety information, may require new studies and will be subject to additional FDA notification, or review and approval. Also, marketing approval for any of Immunic s product candidates may be withdrawn. If Immunic is unable to obtain marketing approval for its product candidates in one or more jurisdictions, or any approval contains significant limitations, Immunic s ability to market to its full target market will be reduced and its ability to realize the full market potential of its product candidates will be impaired. Furthermore, Immunic may not be able to obtain sufficient funding or generate sufficient revenue and cash flows to continue or complete the development of any of its current or future product candidates.

Clinical drug development involves a lengthy and expensive process with an uncertain outcome, and results of earlier studies and trials may not be predictive of future trial results.

Clinical testing is expensive, and can take many years to complete, and its outcome is inherently uncertain. The FDA and comparable foreign regulatory authorities have substantial discretion in the approval process, and

determining when or whether marketing approval will be obtained for Immunic s current product candidates. Even if Immunic believes the data collected from clinical trials of its current product candidates are promising, such data may not be sufficient to support approval by the FDA or comparable foreign authorities. Immunic s future clinical trial results may not be successful.

It is impossible to predict the extent to which the clinical trial process may be affected by legislative and regulatory developments. Due to these and other factors, Immunic s current product candidates or future product candidates could take a significantly longer time to gain marketing approval than expected or may never gain marketing approval. This could delay or eliminate any potential product revenue by delaying or terminating the potential commercialization of Immunic s current product candidates.

Preclinical trials must also be conducted in accordance with FDA and comparable foreign authorities legal requirements, regulations or guidelines, including Good Laboratory Practice, or GLP, an international standard meant to harmonize the conduct and quality of nonclinical studies and the archiving and reporting of findings. Preclinical studies including long-term toxicity studies and carcinogenicity studies in experimental animals may result in findings that may require further evaluation, which could affect the risk-benefit evaluation of clinical development, or which may even lead the regulatory agencies to delay, prohibit the initiation of or halt clinical trials or delay or deny marketing authorization applications. Failure to adhere to the applicable GLP standards or misconduct during the course of preclinical trials may invalidate the data and require one or more studies to be repeated or additional testing to be conducted.

Clinical trials must also be conducted in accordance with FDA and comparable foreign authorities legal requirements, regulations or guidelines, including human subject protection requirements and GCP. Clinical trials are subject to further oversight by these governmental agencies and institutional review boards, or IRBs, at the medical institutions where the clinical trials are conducted. In addition, clinical trials must be conducted with supplies of Immunic s current product candidates produced under cGMP, and other requirements. Immunic s clinical trials are conducted at multiple sites, including some sites in countries outside the United States and the European Union, which may subject Immunic to further delays and expenses as a result of increased shipment costs, additional regulatory requirements and the engagement of foreign and non-EU clinical research organizations, as well as expose Immunic to risks associated with clinical investigators who are unknown to the FDA or the European regulatory authorities, and with different standards of diagnosis, screening and medical care.

To date, Immunic has not completed all clinical trials required for the approval of its current product candidates. The commencement and completion of clinical trials for Immunic s current product candidates may be delayed, suspended or terminated as a result of many factors, including but not limited to:

- the delay or refusal of regulators or IRBs to authorize Immunic to commence a clinical trial at a prospective trial site and changes in regulatory requirements, policies and guidelines;

- the FDA or comparable foreign regulatory authorities disagreeing as to the design or implementation of Immunic s clinical trials;

- failure to reach agreement on acceptable terms with prospective contract research organizations, or CROs, and clinical trial sites, the terms of which can be subject to extensive negotiation and may vary significantly

among different CROs and trial sites;

delays in patient enrollment and variability in the number and types of patients available for clinical trials;

the inability to enroll a sufficient number of patients in trials to ensure adequate statistical power to detect statistically significant treatment effects;

lower than anticipated retention rates of patients and volunteers in clinical trials;

clinical sites deviating from trial protocol or dropping out of a trial;

Table of Contents

adding new clinical trial sites;

negative or inconclusive results, which may require Immunic to conduct additional preclinical or clinical trials or to abandon projects that Immunic expects to be promising;

safety or tolerability concerns could cause Immunic to suspend or terminate a trial if it finds that the participants are being exposed to unacceptable health risks;

regulators or IRBs requiring that Immunic or its investigators suspend or terminate clinical research for various reasons, including noncompliance with regulatory requirements;

Immunic s third-party research and manufacturing contractors failing to comply with regulatory requirements or meet their contractual obligations to Immunic in a timely manner, or at all;

difficulty in maintaining contact with patients after treatment, resulting in incomplete data;

delays in establishing the appropriate dosage levels;

the quality or stability of Immunic s current product candidates falling below acceptable standards;

the inability to produce or obtain sufficient quantities of Immunic s current product candidates to complete clinical trials; and

exceeding budgeted costs due to difficulty in predicting accurately the costs associated with clinical trials.

Patient enrollment is a significant factor in the timing of clinical trials and is affected by many factors, including the size and nature of the patient population, the proximity of patients to clinical sites, the eligibility criteria for the trial, the design of the clinical trial, competing clinical trials and clinicians and patients perceptions as to the potential advantages of the drug being studied in relation to other available therapies, including any new drugs or treatments that may be approved for the indications Immunic is investigating.

There are significant requirements imposed on Immunic and on clinical investigators who conduct clinical trials that Immunic sponsors. Although Immunic is responsible for selecting qualified clinical investigators, providing them with the information they need to conduct the clinical trial properly, ensuring proper monitoring of the clinical trial, and ensuring that the clinical trial is conducted in accordance with the general investigational plan and protocols contained in the IND, Immunic cannot ensure the clinical investigators will maintain compliance with all regulatory requirements at all times. The pharmaceutical industry has experienced cases where clinical investigators have been found to incorrectly record data, omit data, or even falsify data. Immunic cannot ensure that the clinical investigators in its trials will not make mistakes or otherwise compromise the integrity or validity of data, any of which would have a significant negative effect on Immunic s ability to obtain marketing approval, Immunic s business, and Immunic s

financial condition.

Immunic could encounter delays if a clinical trial is suspended or terminated by Immunic, by the IRBs or Ethics Committees of the institutions in which such trial is being conducted, by the independent Steering Committee, by the data safety monitoring board, or DSMB, for such trial, or by the FDA or comparable foreign regulatory authorities. Immunic or such authorities may impose a suspension or termination due to a number of factors, including failure to conduct the clinical trial in accordance with regulatory requirements or Immunic s clinical protocols, inspection of the clinical trial operations or trial site by the FDA or comparable foreign regulatory authorities resulting in the imposition of a clinical hold, safety issues or adverse side effects, failure to demonstrate a benefit from using the drug, changes in governmental regulations or administrative actions or lack of adequate funding to continue the clinical trial. If Immunic experiences delays in the completion of, or termination of, any clinical trial of its current product candidates, the commercial prospects of its current product candidates will be harmed, and Immunic s ability to generate product revenues from its product candidates will be delayed. In addition, any delays in completing Immunic s clinical trials will increase its costs, slow its development and approval process and jeopardize its ability to commence product sales and generate revenues. Many of the factors that cause, or lead to, a delay in the commencement or completion of clinical trials may also ultimately lead to the denial of marketing approval of Immunic s product candidates.

Table of Contents

Moreover, clinical investigators for Immunic s clinical trials may serve as scientific advisors or consultants to Immunic from time to time and receive compensation in connection with such services. Immunic is required to report certain financial relationships with clinical investigators to the FDA and, where applicable, take steps to minimize the potential for bias resulting from such financial relationships. The FDA will evaluate the reported information and may conclude that a financial relationship between Immunic and a clinical investigator has created a conflict of interest or otherwise affected interpretation of the study. The FDA may therefore question the integrity of the data generated at the applicable clinical trial site, and the utility of the clinical trial itself may be jeopardized. This could result in a refusal to accept or a delay in approval of Immunic s marketing applications by the FDA and may ultimately lead to the denial of marketing approval of one or more of its product candidates.

Any development candidate may also show in preclinical testing or clinical trials new and unexpected findings regarding safety and tolerability. Such findings may harm the ability to conduct further development, may delay development, may require additional expensive tests, will harm the ability of partner these development candidates, or may delay or prevent marketing approval by regulatory agencies. It may also harm the ability to compete in the market with other products or to achieve certain pricing thresholds.

Any of these occurrences could materially adversely affect Immunic s business, financial condition, results of operations, and prospects. In addition, many of the factors that cause, or lead to, a delay in the commencement or completion of clinical trials may also ultimately lead to the denial of marketing approval of Immunic s current product candidates. Significant clinical trial delays could also allow Immunic s competitors to bring products to market before Immunic is able to do so, shorten any periods during which Immunic has the exclusive right to commercialize its current product candidates and impair its ability to commercialize its current product candidates, which may harm Immunic s business, financial condition, results of operations, and prospects.

Clinical failure can occur at any stage of clinical development. Because the results of earlier clinical trials are not necessarily predictive of future results, any product candidate Immunic advances through clinical trials may not have favorable results in later clinical trials or receive marketing approval.

Clinical failure can occur at any stage of Immunic s clinical development. The results of preclinical studies and early clinical trials of Immunic s product candidates may not be predictive of the results of later-stage clinical trials. Product candidates in later stages of clinical trials may fail to show the desired safety and efficacy traits despite having progressed through preclinical studies and initial clinical trials. A number of companies in the pharmaceutical industry have suffered significant setbacks in advanced clinical trials due to lack of efficacy or adverse safety profiles, notwithstanding promising results in earlier trials. Clinical trials may produce negative or inconclusive results, and Immunic may decide, or regulators may require Immunic, to conduct additional clinical or preclinical testing. Data obtained from tests are susceptible to varying interpretations, and regulators may not interpret Immunic s data as favorably as Immunic does, which may delay, limit or prevent marketing approval. In addition, the design of a clinical trial can determine whether its results will support approval of a product, or approval of a product for desired indications, and flaws or shortcomings in the design of a clinical trial may not become apparent until the clinical trial is well advanced. Immunic has limited experience in designing clinical trials and may be unable to design and execute a clinical trial to support marketing approval for Immunic s desired indications. Further, clinical trials of potential products often reveal that it is not practical or feasible to continue development efforts. If one of Immunic s product candidates is found to be unsafe or lack efficacy, Immunic will not be able to obtain marketing approval for it and Immunic s business would be harmed. For example, if the results of Immunic s clinical trials of its product candidates do not achieve pre-specified endpoints or Immunic is unable to provide primary or secondary endpoint measurements deemed acceptable by the FDA or comparable foreign regulators or if Immunic is unable to demonstrate an acceptable level of safety relative to the efficacy associated with its proposed indications, the prospects for approval of Immunic s product candidates would be materially and adversely affected. A number of companies in the pharmaceutical

industry, including those with greater resources and experience than Immunic, have suffered significant setbacks in phase 2 and phase 3 clinical trials, even after seeing promising results in earlier clinical trials.

Table of Contents

In some instances, there can be significant variability in safety and/or efficacy results between different trials of the same product candidate due to numerous factors, including differences in trial protocols and design, the size and type of the patient population, adherence to the dosing regimen and the rate of dropout among clinical trial participants. Immunic does not know whether any clinical trials it may conduct will demonstrate consistent and/or adequate efficacy and safety to obtain marketing approval for Immunic s product candidates.

Marketing approval may be substantially delayed or may not be obtained for one or all of Immunic s product candidates if regulatory authorities require additional or more time-consuming studies to assess the safety and efficacy of its product candidates.

Immunic may be unable to initiate or complete development of its product candidates on schedule, if at all. The timing for the completion of the studies for Immunic s product candidates will require funding beyond the proceeds of the concurrent financing. In addition, if regulatory authorities require additional or more time-consuming studies to assess the safety or efficacy of Immunic s product candidates, Immunic may not have or be able to obtain adequate funding to complete the necessary steps for approval for any or all of its product candidates. Additional delays may result if the FDA, an FDA Advisory Committee (if one is convened to review Immunic s NDA) or other regulatory authority indicates that the product candidate should not be approved or there should be restrictions on approval, such as the requirement for a Risk Evaluation and Mitigation Strategy, or REMS, to ensure safe use of the drug. Delays in marketing approval or rejections of applications for marketing approval in the United States or other markets may result from many factors, including:

- the FDA s or comparable foreign regulatory authorities disagreement with the design or implementation of Immunic s clinical trials;
- regulatory requests for additional analyses, reports, data, non-clinical and preclinical studies and clinical trials;
- regulatory questions or disagreement by the FDA or comparable regulatory authorities regarding interpretations of data and results and the emergence of new information regarding Immunic s current or future product candidates or the field of research;
- unfavorable or inconclusive results of clinical trials and supportive non-clinical studies, including unfavorable results regarding safety or efficacy of Immunic s product candidates during clinical trials;
- failure to meet the level of statistical significance required for approval;
- inability to demonstrate that a product candidate s clinical and other benefits outweigh its safety risks;
- lack of adequate funding to commence or continue Immunic s clinical trials due to unforeseen costs or other business decisions;

regulatory authorities may find inadequate the manufacturing processes or facilities of the third-party manufacturers with which Immunic contracts for clinical and commercial supplies;

Immunic may have insufficient funds to pay the significant user fees required by the FDA upon the filing of a NDA; and

the approval policies or regulations of the FDA or comparable foreign regulatory authorities may significantly change in a manner that would delay marketing approval.

The lengthy and unpredictable approval process, as well as the unpredictability of future clinical trial results, may result in Immunic s failure to obtain marketing approval to market its other product candidates, which would significantly harm Immunic s business, results of operations and prospects.

Table of Contents

Immunic s product candidates may cause undesirable adverse effects or have other properties that could delay or prevent their marketing approval, limit the commercial profile of an approved label, or result in significant negative consequences following marketing approval, if obtained.

Undesirable side effects caused by Immunic s product candidates could cause Immunic or regulatory authorities to interrupt, delay or halt clinical trials and could result in a more restrictive label or the delay or denial of marketing approval by the FDA or other comparable foreign authorities. If any of Immunic s current product candidates or any other product candidate Immunic develops is associated with serious adverse, undesirable or unacceptable side effects, Immunic may need to abandon such candidate s development or limit development to certain uses or sub-populations in which such side effects are less prevalent, less severe or more acceptable from a risk-benefit perspective. Many compounds that initially showed promise in early-stage or clinical testing have later been found to cause side effects that prevented further development of the compound. Results of Immunic s trials could reveal a high and unacceptable prevalence of these or other side effects. In such an event, Immunic s trials could be suspended or terminated and the FDA or comparable foreign regulatory authorities could order Immunic to cease further development of or deny approval of its product candidates for any or all targeted indications. The drug-related side effects could affect patient recruitment or the ability of enrolled patients to complete the trial or result in potential product liability claims.

If Immunic s product candidates receive marketing approval, and Immunic or others later identify undesirable side effects caused by such products, a number of potentially significant negative consequences could result, including:

- regulatory authorities may withdraw approvals of such product;
- Immunic may be required to recall a product or change the way such product is administered to patients;
- additional restrictions may be imposed on the marketing of the particular product or the manufacturing process for the product or any component thereof;
- regulatory authorities may require the addition of labeling statements, such as a precaution, black box warning or other warnings or a contraindication;
- Immunic or its collaborators may be required to implement a REMS or create a medication guide outlining the risks of such side effect for distribution to patients;
- Immunic or its collaborators could be sued and held liable for harm caused to patients;
- the product may become less competitive; and
- Immunic s reputation may suffer.

Any of these events could prevent Immunic from achieving or maintaining market acceptance of its product candidates, if approved, and could materially adversely affect Immunic s business, financial condition, results of operations and prospects.

Immunic is heavily dependent on the success of its product candidates, which are in the early stages of clinical development. Immunic cannot give any assurance that it will generate data for any of its product candidates sufficient to receive regulatory approval in its planned indications, which will be required before they can be commercialized.

Immunic has invested substantially all of its efforts and financial resources to identify, acquire and develop its portfolio of product candidates. Its future success is dependent on its ability to successfully further develop, obtain regulatory approval for, and commercialize one or more product candidates. Immunic currently generates no revenue from sales of any products, and Immunic may never be able to develop or commercialize a product candidate.

Table of Contents

None of Immunic s product candidates have advanced into a pivotal clinical trial for Immunic s proposed indications. Immunic is not permitted to market or promote any of its product candidates before it receives regulatory approval from the FDA or comparable foreign regulatory authorities, and Immunic may never receive such regulatory approval for any of its product candidates. Immunic cannot be certain that any of its product candidates will be successful in clinical trials or receive regulatory approval. Further, its product candidates may not receive regulatory approval even if they are successful in clinical trials. If Immunic does not receive regulatory approvals for its product candidates, Immunic may not be able to continue its operations.

Immunic may use its financial and human resources to pursue a particular research program or product candidate and fail to capitalize on programs or product candidates that may be more profitable or for which there is a greater likelihood of success.

Because Immunic has limited financial and human resources, it may forego or delay pursuit of opportunities with some programs or product candidates or for other indications that later prove to have greater commercial potential. Immunic s resource allocation decisions may cause it to fail to capitalize on viable commercial products or more profitable market opportunities. Immunic s spending on current and future research and development programs and future product candidates for specific indications may not yield any commercially viable products. Immunic may also enter into additional strategic collaboration agreements to develop and commercialize some of its programs and potential product candidates in indications with potentially large commercial markets. If Immunic does not accurately evaluate the commercial potential or target market for a particular product candidate, it may relinquish valuable rights to that product candidate through strategic collaborations, licensing or other royalty arrangements in cases in which it would have been more advantageous for Immunic to retain sole development and commercialization rights to such product candidate, or Immunic may allocate internal resources to a product candidate in a therapeutic area in which it would have been more advantageous to enter into a partnering arrangement.

Immunic may find it difficult to enroll patients in its clinical trials given the limited number of patients who have the diseases for which its product candidates are being studied. Difficulty in enrolling patients could delay or prevent clinical trials of its product candidates.

Identifying and qualifying patients to participate in clinical trials of Immunic s product candidates is essential to its success. The timing of Immunic s clinical trials depends in part on the rate at which Immunic can recruit patients to participate in clinical trials of its product candidates, and Immunic may experience delays in its clinical trials if Immunic encounters difficulties in enrollment.

The eligibility criteria of Immunic s planned clinical trials may further limit the available eligible trial participants as Immunic expects to require that patients have specific characteristics that Immunic can measure or meet the criteria to assure their conditions are appropriate for inclusion in its clinical trials. Immunic may not be able to identify, recruit, and enroll a sufficient number of patients to complete its clinical trials in a timely manner because of the perceived risks and benefits of the product candidate under study, the availability and efficacy of competing therapies and clinical trials, and the willingness of physicians to participate in its planned clinical trials. If patients are unwilling to participate in Immunic s clinical trials for any reason, the timeline for conducting trials and obtaining regulatory approval of its product candidates may be delayed.

If Immunic experiences delays in the completion of, or termination of, any clinical trials of its product candidates, the commercial prospects of its product candidates could be harmed, and its ability to generate product revenue from any of these product candidates could be delayed or prevented. In addition, any delays in completing its clinical trials would likely increase its overall costs, impair product candidate development and jeopardize its ability to obtain regulatory approval relative to its current plans. Any of these occurrences may harm its business, financial condition,

and prospects significantly.

Table of Contents

Even if Immunic receives marketing approval for its product candidates, such approved products will be subject to ongoing obligations and continued regulatory review, which may result in significant additional expense. Additionally, Immunic s product candidates, if approved, could be subject to labeling and other restrictions, and Immunic may be subject to penalties and legal sanctions if it fails to comply with regulatory requirements or experience unanticipated problems with its approved products.

If the FDA approves any of Immunic s product candidates, the manufacturing processes, labeling, packaging, distribution, adverse event reporting, storage, advertising, promotion and recordkeeping for the product will be subject to extensive and ongoing regulatory requirements. These requirements include submissions of safety and other post-marketing information and reports, registration, as well as continued compliance with cGMP regulations and GCP for any clinical trials that Immunic conducts post-approval. Any marketing approvals that Immunic receives for its product candidates may also be subject to limitations on the approved indicated uses for which the product may be marketed or to conditions of approval, or contain requirements for potentially costly post-marketing testing, including phase 4 clinical trials, and surveillance to monitor safety and efficacy.

Later discovery of previously unknown problems with an approved product, including adverse events of unanticipated severity or frequency, or with manufacturing operations or processes, or failure to comply with regulatory requirements, or evidence of acts that raise questions about the integrity of data supporting the product approval, may result in, among other things:

- restrictions on the marketing or manufacturing of the product, withdrawal of the product from the market, or voluntary or mandatory product recalls;
- fines, warning letters, or holds on clinical trials;
- refusal by the FDA to approve pending applications or supplements to approved applications filed by Immunic, or suspension or revocation of product approvals;
- product seizure or detention, or refusal to permit the import or export of products; and
- injunctions or the imposition of civil or criminal penalties.

The FDA s policies may change and additional government regulations may be enacted that could prevent, limit or delay marketing approval, manufacturing or commercialization of Immunic s product candidates. Immunic cannot predict the likelihood, nature or extent of government regulation that may arise from future legislation or administrative action, either in the United States or abroad. If Immunic is slow or unable to adapt to changes in existing requirements or the adoption of new requirements or policies, or not able to maintain regulatory compliance, it may lose any marketing approval that may have been obtained and it may not achieve or sustain profitability, which would adversely affect Immunic s business.

If Immunic fails to obtain regulatory approval in jurisdictions outside the United States, it will not be able to market its products in those jurisdictions.

Immunic intends to market its product candidates, if approved, in international markets, or in conjunction with collaborators. Such marketing will require separate regulatory approvals in each market and compliance with numerous and varying regulatory requirements. The approval procedures vary from country to country and may require testing in addition to what is required for a marketing application in the United States. Moreover, the time required to obtain approval may differ from that required to obtain FDA approval. In addition, in many countries outside the United States, a product candidate must be approved for reimbursement before it can be approved for sale in that country. Approval by the FDA does not ensure approval by regulatory authorities in other countries or jurisdictions, and approval by one foreign regulatory authority does not ensure approval by regulatory authorities in other foreign countries or by the FDA. The failure to obtain approval in one jurisdiction may negatively impact Immunic s ability to obtain approval in another jurisdiction. The foreign regulatory approval process may include all of the risks associated with obtaining FDA approval and additional or different risks. Immunic may not be able to file for regulatory approvals and may not receive necessary approvals to commercialize its products in any market.

Table of Contents

Agencies like the FDA and national competition regulators in European countries regulate the promotion and uses of drugs not consistent with approved product labeling requirements. If Immunic is found to have improperly promoted its current product candidates for uses beyond those that are approved, Immunic may become subject to significant liability.

Regulatory authorities like the FDA and national competition laws in Europe strictly regulate the promotional claims that may be made about prescription products, if approved. In particular, a product may not be promoted for uses that are not approved by the FDA or comparable foreign regulatory authorities as reflected in the product s approved labeling, known as off-label use, nor may it be promoted prior to obtaining marketing approval. If Immunic receives marketing approval for its product candidates for Immunic s proposed indications, physicians may nevertheless use Immunic s products for their patients in a manner that is inconsistent with the approved label if the physicians personally believe in their professional medical judgment it could be used in such manner. Although physicians may prescribe legally available drugs for off-label uses, manufacturers may not market or promote such off-label uses.

In addition, the FDA requires that promotional claims not be false or misleading as such terms are defined in the FDA s regulations. For example, the FDA requires substantial evidence, which generally consists of two adequate and well-controlled head-to-head clinical trials, for a company to make a claim that its product is superior to another product in terms of safety or effectiveness. Generally, unless Immunic performs clinical trials meeting that standard comparing its product candidates to competitive products and these claims are approved in Immunic s product labeling, Immunic will not be able promote its current product candidates as superior to other products. If Immunic is found to have made such claims it may become subject to significant liability. In the United States, the federal government has levied large civil and criminal fines against companies for alleged improper promotion and has enjoined several companies from engaging in improper promotion. The FDA has also requested that companies enter into consent decrees or corporate integrity agreements. The FDA could also seek permanent injunctions under which specified promotional conduct is monitored, changed or curtailed.

Immunic s current and future relationships with healthcare professionals, investigators, consultants, collaborators, actual customers, potential customers and third-party payors in the United States and elsewhere may be subject, directly or indirectly, to applicable anti-kickback, fraud and abuse, false claims, physician payment transparency, health information privacy and security and other healthcare laws and regulations, which could expose Immunic to sanctions.

Healthcare providers, physicians and third-party payors in the United States and elsewhere will play a primary role in the recommendation and prescription of any drug candidates for which Immunic obtains marketing approval. Immunic s current and future arrangements with healthcare professionals, investigators, consultants, collaborators, actual customers, potential customers and third-party payors may expose Immunic to broadly applicable fraud and abuse and other healthcare laws, including, without limitation, the federal Anti-Kickback Statute and the federal False Claims Act, that may constrain the business or financial arrangements and relationships through which Immunic sells, markets and distributes any drug candidates for which it obtains marketing approval. In addition, Immunic may be subject to physician payment transparency laws and patient privacy and security regulation by the federal government and by the U.S. states and foreign jurisdictions in which Immunic conducts its business. The applicable federal, state and foreign healthcare laws that may affect Immunic s ability to operate include the following:

- the federal Anti-Kickback Statute, which prohibits, among other things, persons from knowingly and willfully soliciting, offering, receiving or providing remuneration, directly or indirectly, in cash or in kind, to induce or reward, or in return for, either the referral of an individual for, or the purchase, lease, order or

recommendation of, any good, facility, item or service, for which payment may be made, in whole or in part, under federal and state healthcare programs such as Medicare and Medicaid;

federal civil and criminal false claims laws and civil monetary penalty laws, including the federal False Claims Act, which impose criminal and civil penalties, including civil whistleblower or qui tam

Table of Contents

actions, against individuals or entities for, among other things, knowingly presenting, or causing to be presented, to the federal government, including the Medicare and Medicaid programs, claims for payment that are false or fraudulent or making a false statement to avoid, decrease or conceal an obligation to pay money to the federal government;

the civil monetary penalties statute, which imposes penalties against any person or entity who, among other things, is determined to have presented or caused to be presented a claim to a federal health program that the person knows or should know is for an item or service that was not provided as claimed or is false or fraudulent;

the federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, which created new federal criminal statutes that prohibit knowingly and willfully executing, or attempting to execute, a scheme to defraud any healthcare benefit program or obtain, by means of false or fraudulent pretenses, representations or promises, any of the money or property owned by, or under the custody or control of, any healthcare benefit program, regardless of the payor (e.g., public or private), knowingly and willfully embezzling or stealing from a health care benefit program, willfully obstructing a criminal investigation of a healthcare offense and knowingly and willfully falsifying, concealing or covering up by any trick or device a material fact or making any materially false statements in connection with the delivery of, or payment for, healthcare benefits, items or services relating to healthcare matters;

HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act of 2009, or HITECH, and its implementing regulations, which impose obligations on covered entities, including healthcare providers, health plans, and healthcare clearinghouses, as well as their respective business associates that create, receive, maintain or transmit individually identifiable health information for or on behalf of a covered entity, with respect to safeguarding the privacy, security and transmission of individually identifiable health information;

the federal Open Payments program, created under Section 6002 of the Affordable Care Act and its implementing regulations, which imposed new annual reporting requirements for manufacturers of drugs, devices, biologicals and medical supplies for certain payments and transfers of value provided to physicians and teaching hospitals, as well as ownership and investment interests held by physicians and their immediate family members. Failure to submit timely, accurately and completely the required information for all covered payments, transfers of value and ownership or investment interests may result in civil monetary penalties; and

analogous state and foreign laws, such as state anti-kickback and false claims laws, which may apply to sales or marketing arrangements and claims involving healthcare items or services reimbursed by non-governmental third-party payors, including private insurers; state laws that require pharmaceutical companies to comply with the pharmaceutical industry s voluntary compliance guidelines and the relevant compliance guidance promulgated by the federal government or otherwise restrict payments that may be made to healthcare providers; state and foreign laws that require drug manufacturers to report information related to payments and other transfers of value to physicians and other healthcare providers or marketing expenditures; and state and foreign laws governing the privacy and security of health information in certain

circumstances, many of which differ from each other in significant ways and often are not preempted by HIPAA, thus complicating compliance efforts.

Further, the Affordable Care Act, among other things, amended the intent requirement of the federal Anti-Kickback Statute and certain criminal statutes governing healthcare fraud. A person or entity no longer needs to have actual knowledge of the statute or specific intent to violate it. In addition, the Affordable Care Act provided that the government may assert that a claim including items or services resulting from a violation of the federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the False Claims Act.

Efforts to ensure that Immunic s future business arrangements with third parties will comply with applicable healthcare laws and regulations may involve substantial costs. It is possible that governmental authorities will

Table of Contents

conclude that Immunic s business practices may not comply with current or future statutes, regulations or case law involving applicable fraud and abuse or other healthcare laws. If Immunic s operations are found to be in violation of any of these laws or any other governmental regulations that may apply to it, Immunic may be subject to significant civil, criminal and administrative penalties, including, without limitation, damages, fines, imprisonment, exclusion from participation in government healthcare programs, such as Medicare and Medicaid, and the curtailment or restructuring of Immunic s operations, which could significantly harm its business. If any of the physicians or other healthcare providers or entities with whom Immunic expects to do business, including its current and future collaborators, if any, are found not to be in compliance with applicable laws, those persons or entities may be subject to criminal, civil or administrative sanctions, including exclusion from participation in government healthcare programs, which could also affect Immunic s business.

The impact of recent and future healthcare reform legislation and other changes in the healthcare industry and healthcare spending on Immunic is currently unknown, and may adversely affect its business model.

In the United States and some foreign jurisdictions, legislative and regulatory changes and proposed changes regarding the healthcare system could prevent or delay marketing approval of Immunic s drug candidates, restrict or regulate post-approval activities and affect its ability to profitably sell any drug candidates for which Immunic obtains marketing approval.

Immunic s revenue prospects could be affected by changes in healthcare spending and policy in the United States and abroad. Immunic operates in a highly regulated industry and new laws, judicial decisions, or new interpretations of existing laws, or decisions, related to healthcare availability, the method of delivery or payment for healthcare products and services could negatively impact Immunic s business, financial condition, results of operations and prospects. There is significant interest in promoting health care reform, as evidenced by the enactment in the United States of the Affordable Care Act. Among other things, the Affordable Care Act contains provisions that may reduce the profitability of drug products, including, for example, revising the methodology by which rebates owed by manufacturers for covered outpatient drugs under the Medicaid Drug Rebate Program are calculated, extending the Medicaid Drug Rebate Program to utilization of prescriptions of individuals enrolled in Medicaid managed care plans, imposing mandatory discounts for certain Medicare Part D beneficiaries, and subjecting drug manufacturers to payment of an annual fee.

In addition, other legislative changes have been proposed and adopted in the United States since the Affordable Care Act was enacted. On August 2, 2011, the Budget Control Act of 2011 among other things, created measures for spending reductions by Congress. A Joint Select Committee on Deficit Reduction, tasked with recommending a targeted deficit reduction of at least $1.2 trillion for the years 2013 through 2021, was unable to reach required goals, thereby triggering the legislation s automatic reduction to several government programs. This includes aggregate reductions to Medicare payments to providers of 2% per fiscal year, which started in April 2013, and, due to subsequent legislative amendments, will remain in effect through 2024 unless additional Congressional action is taken. On January 2, 2013, the American Taxpayer Relief Act of 2012 was signed into law, which, among other things, also reduced Medicare payments to several providers, including hospitals, imaging centers and cancer treatment centers.

Immunic expects that additional healthcare reform measures and drug pricing regulations that may be adopted in the future, may result in more rigorous coverage criteria and in additional downward pressure on the price that it receives for any approved product. Any reduction in reimbursement from Medicare or other government programs may result in a similar reduction in payments from private payors. The implementation of cost containment measures or other healthcare reforms may prevent Immunic from being able to generate revenue or commercialize Immunic s drugs.

It is likely that federal and state legislatures within the United States and foreign governments will continue to consider changes to existing healthcare legislation. Immunic cannot predict the reform initiatives that may be

Table of Contents

adopted in the future or whether initiatives that have been adopted will be repealed or modified. The continuing efforts of the government, insurance companies, managed care organizations and other payors of healthcare services to contain or reduce costs of healthcare may adversely affect:

- the demand for any drug products for which Immunic may obtain marketing approval;
- Immunic s ability to set a price that Immunic believes is fair for its products;
- Immunic s ability to obtain coverage and reimbursement approval for a product;
- Immunic s ability to generate revenues and achieve or maintain profitability; and
- the level of taxes that Immunic is required to pay.

If Immunic fails to comply with environmental, health and safety laws and regulations, Immunic could become subject to fines or penalties or incur costs that could have a material adverse effect on its business, financial condition or results of operations.

Immunic s research and development activities and its third-party manufacturers and suppliers activities involve the controlled storage, use, and disposal of hazardous materials, including the components of its product candidates and other hazardous compounds. Immunic and its manufacturers and suppliers are subject to laws and regulations governing the use, manufacture, storage, handling, and disposal of these hazardous materials. In some cases, these hazardous materials and various wastes resulting from their use are stored at Immunic s and its manufacturers facilities pending their use and disposal. Immunic cannot eliminate the risk of contamination, which could cause an interruption of its commercialization efforts, research and development efforts and business operations, environmental damage resulting in costly clean-up and liabilities under applicable laws and regulations governing the use, storage, handling, and disposal of these materials and specified waste products. Although Immunic believes that the safety procedures utilized by it and its third-party manufacturers for handling and disposing of these materials generally comply with the standards prescribed by these laws and regulations, Immunic cannot guarantee that this is the case or eliminate the risk of accidental contamination or injury from these materials. In such an event, Immunic may be held liable for any resulting damages and such liability could exceed its resources and state or federal or other applicable authorities may curtail Immunic s use of specified materials and/or interrupt its business operations. Furthermore, environmental laws and regulations are complex, change frequently, and have tended to become more stringent. Immunic cannot predict the impact of such changes and cannot be certain of its future compliance. Immunic does not currently carry biological or hazardous waste insurance coverage.

Other Risks Related to Immunic s Business

Due to Immunic s limited resources and access to capital, it must decide to prioritize development of its current product candidates for certain indications and at certain doses. These decisions may prove to have been wrong and may materially adversely affect Immunic s business, financial condition, results of operations and prospects.

Because Immunic has limited resources and access to capital to fund its operations, it must decide which dosages and indications to pursue for the clinical development of its current product candidates and the amount of resources to allocate to each. Immunic s decisions concerning the allocation of research, collaboration, management and financial resources toward dosages or therapeutic areas may not lead to the development of viable commercial products and may divert resources away from better opportunities. If Immunic makes incorrect determinations regarding the market potential of its current product candidates or misreads trends in the pharmaceutical industry, Immunic s business, financial condition, results of operations and prospects could be materially adversely affected.

Immunic may not be able to win government, academic institution or non-profit contracts or grants.

From time to time, Immunic may apply for contracts or grants from government agencies, non-profit entities and academic institutions. Such contracts or grants can be highly attractive because they provide capital to fund the

Table of Contents

ongoing development of Immunic s product candidates without diluting its shareholders. However, there is often significant competition for these contracts or grants. Entities offering contracts or grants may have requirements to apply for or to otherwise be eligible for certain contracts or grants that Immunic s competitors may be able to satisfy that Immunic cannot. In addition, such entities may make arbitrary decisions as to whether to offer contracts or make grants, to whom the contracts or grants may or will be awarded and the size of the contracts or grants to each awardee. Even if Immunic is able to satisfy the award requirements, there is no guarantee that Immunic will be a successful awardee. Therefore, Immunic may not be able to win any contracts or grants in a timely manner, if at all.

If Immunic fails to attract and retain key management and scientific personnel, it may be unable to successfully develop or commercialize its product candidates.

Immunic s success as a specialty pharmaceutical company depends on its continued ability to attract, retain and motivate highly qualified management and scientific and clinical personnel. The loss of the services of any of Immunic s senior management could delay or prevent obtaining marketing approval or commercialization of its product candidates.

Immunic may not be able to attract or retain qualified management and scientific personnel in the future due to the intense competition for a limited number of qualified personnel among specialty pharmaceutical businesses, and other pharmaceutical, biotechnology and other businesses. Immunic s failure to attract, hire, integrate and retain qualified personnel could impair its ability to achieve its business objectives.

If a successful product liability claim or series of claims is brought against Immunic for uninsured liabilities or in excess of insured liabilities, Immunic could be forced to pay substantial damage awards.

The use of any of Immunic s product candidates in clinical trials, and the sale of any approved products, may expose Immunic to product liability claims. Immunic currently maintains product liability insurance. Immunic intends to monitor the amount of coverage it maintains as the size and design of its clinical trials evolve and adjust the amount of coverage it maintains accordingly. However, there is no assurance that such insurance coverage will fully protect Immunic against some or all of the claims to which it might become subject. Immunic might not be able to maintain adequate insurance coverage at a reasonable cost or in sufficient amounts or scope to protect it against potential losses. In the event a claim is brought against Immunic, it might be required to pay legal and other expenses to defend the claim, as well as uncovered damages awards resulting from a claim brought successfully against Immunic.

Furthermore, whether or not Immunic is ultimately successful in defending any such claims, Immunic might be required to direct financial and managerial resources to such defense and adverse publicity could result, all of which could harm Immunic s business.

Immunic s employees, independent contractors, investigators, contract research organizations, consultants, collaborators and vendors may engage in misconduct or other improper activities, including noncompliance with regulatory standards and requirements and insider trading.

Immunic is exposed to the risk that its employees and other third parties may engage in fraudulent conduct or other illegal activity. Misconduct by employees and other third parties could include intentional, reckless and/or negligent conduct or disclosure of unauthorized activities to Immunic that violate FDA regulations, including those laws requiring the reporting of true, complete and accurate information to the FDA, manufacturing standards, federal and state healthcare fraud and abuse laws and regulations, or laws that require the reporting of financial information or data accurately. In particular, sales, marketing and business arrangements in the healthcare industry are subject to extensive laws intended to prevent fraud, kickbacks, self-dealing and other abusive practices. These laws and

regulations may restrict or prohibit a wide range of pricing, discounting,

Table of Contents

marketing and promotion, sales commission, customer incentive programs and other business arrangements. Activities subject to these laws also involve the improper use of information obtained in the course of clinical trials, which could result in regulatory sanctions and serious harm to Immunic s reputation. It is not always possible to identify and deter employee and other third-party misconduct, and the precautions Immunic takes to detect and prevent this activity may not be effective in controlling unknown or unmanaged risks or losses or in protecting Immunic from governmental investigations or other actions or lawsuits stemming from a failure to be in compliance with such laws. If any such actions are instituted against Immunic, and Immunic is not successful in defending itself or asserting its rights, those actions could have a significant impact on Immunic s business, including the imposition of significant civil, criminal and administrative penalties, damages, monetary fines, disgorgement, possible exclusion from participation in Medicare, Medicaid and other federal healthcare programs, contractual damages, reputational harm, diminished profits and future earnings and curtailment or restructuring of Immunic s operations, any of which could adversely affect Immunic s ability to operate.

Immunic will need to expand its organization and Immunic may experience difficulties in managing this growth, which could disrupt its operations.

As of December 31, 2018, Immunic had 12 full-time employees. As Immunic s development and commercialization plans and strategies develop, Immunic expects to need additional managerial, operational, sales, marketing, financial, legal and other resources. Its management may need to divert a disproportionate amount of its attention away from its day-to-day activities and devote a substantial amount of time to managing these growth activities. As Immunic advances its product candidates through clinical trials, it will need to expand its development, regulatory, manufacturing, marketing and sales capabilities or contract with third parties to provide these capabilities for Immunic. As Immunic s operations expand, Immunic expects that it will need to manage additional relationships with such third parties, as well as additional collaborators and suppliers.

Immunic may not be able to effectively manage the expansion of its operations, which may result in weaknesses in its infrastructure, operational mistakes, loss of business opportunities, loss of employees, and reduced productivity among remaining employees. Immunic s expected growth could require significant capital expenditures and may divert financial resources from other projects, such as the development of additional product candidates. If its management is unable to effectively manage its growth, its expenses may increase more than expected, its ability to generate and/or grow revenue could be reduced and Immunic may not be able to implement its business strategy. Immunic s future financial performance and its ability to commercialize product candidates and compete effectively will depend, in part, on its ability to effectively manage any future growth.

Immunic s internal computer systems, or those of its development collaborators, third-party clinical research organizations or other contractors or consultants, may fail or suffer security breaches, which could result in a material disruption of Immunic s product development programs.

Despite the implementation of security measures, Immunic s internal computer systems and those of its current and any future CROs and other contractors, consultants and collaborators are vulnerable to damage from computer viruses, unauthorized access, natural disasters, terrorism, war and telecommunication and electrical failures. While Immunic has not experienced any such material system failure, accident or security breach to date, if such an event were to occur and cause interruptions in its operations, it could result in a material disruption of Immunic s development programs and its business operations. For example, the loss of clinical trial data from completed or future clinical trials could result in delays in Immunic s marketing approval efforts and significantly increase its costs to recover or reproduce the data. Likewise, Immunic intends to rely on third parties to manufacture its product candidates and conduct clinical trials, and similar events relating to their computer systems could also have a material adverse effect on Immunic s business. To the extent that any disruption or security breach were to result in a loss of, or damage to,

Immunic s data or applications, or inappropriate disclosure of confidential or proprietary information, Immunic could incur liability and the further development and commercialization of its product candidates could be delayed.

Table of Contents

Risks Related to Commercialization of Immunic s Product Candidates

Even if Immunic obtains the required regulatory approvals in the United States and other territories, the commercial success of its product candidates will depend on market awareness and acceptance of its product candidates.

Even if Immunic obtains marketing approval for its current product candidates or any other product candidates that it may develop or acquire in the future, the products may not gain market acceptance among physicians, key opinion leaders, healthcare payors, patients and the medical community. Market acceptance of any approved products depends on a number of factors, including:

- the timing of market introduction;
- the efficacy and safety of the product, as demonstrated in clinical trials;
- the clinical indications for which the product is approved and the label approved by regulatory authorities for use with the product, including any precautions, warnings or contraindications that may be required on the label;
- acceptance by physicians, key opinion leaders and patients of the product as a safe and effective treatment;
- the cost, safety and efficacy of treatment in relation to alternative treatments;
- the availability of coverage and adequate reimbursement and pricing by third-party payors and government authorities;
- the number and clinical profile of competing products;
- the growth of drug markets in Immunic s various indications;
- relative convenience and ease of administration;
- marketing and distribution support;
- the prevalence and severity of adverse side effects; and

the effectiveness of Immunic s sales and marketing efforts.

Market acceptance is critical to Immunic s ability to generate revenue. Any product candidate, if approved and commercialized, may be accepted in only limited capacities or not at all. If any approved products are not accepted by the market to the extent that Immunic expects, Immunic may not be able to generate revenue and its business would suffer.

Immunic currently has limited marketing and sales experience. If Immunic is unable to establish sales and marketing capabilities or enter into agreements with third parties to market and sell its product candidates, Immunic may be unable to generate any revenue.

Immunic has never commercialized a product candidate, and Immunic currently has no marketing and sales organization. To the extent Immunic s product candidates are approved for marketing, if Immunic is unable to establish marketing and sales capabilities or enter into agreements with third parties to market and sell its product candidates, Immunic may not be able to effectively market and sell its product candidates or generate product revenue.

Immunic has never commercialized a product candidate, and Immunic currently does not have marketing, sales or distribution capabilities for its product candidates. In order to commercialize any of Immunic s products that receive marketing approval, it would have to build marketing, sales, distribution, managerial and other non-technical capabilities or make arrangements with third parties to perform these services, and Immunic may

Table of Contents

not be successful in doing so. In the event of successful development of Immunic s product candidates, if Immunic elects to build a targeted specialty sales force, such an effort would be expensive and time consuming. Any failure or delay in the development of Immunic s internal sales, marketing and distribution capabilities would adversely impact the commercialization of these products. Immunic may choose to collaborate with third parties that have their own sales forces and established distribution systems, in lieu of or to augment any sales force and distribution systems Immunic may create. If Immunic is unable to enter into collaborations with third parties for the commercialization of approved products, if any, on acceptable terms or at all, or if any such collaborator does not devote sufficient resources to the commercialization of Immunic s product or otherwise fails in commercialization efforts, Immunic may not be able to successfully commercialize its product candidates if it receives marketing approval. If Immunic is not successful in commercializing its product candidates, either on its own or through collaborations with one or more third parties, its future revenue will be materially and adversely impacted.

If Immunic fails to enter into strategic relationships or collaborations, its business, financial condition, commercialization prospects and results of operations may be materially adversely affected.

Immunic s product development programs and the potential commercialization of its current product candidates will require substantial additional cash to fund expenses. Therefore, in addition to financing the development of Immunic s product candidates through additional equity financings or through debt financings, Immunic may decide to enter into collaborations with pharmaceutical or biopharmaceutical companies for the development and potential commercialization of its product candidates.

Immunic faces significant competition in seeking appropriate collaborators. Collaborations are complex and time-consuming to negotiate and document. Immunic may also be restricted under existing and future collaboration agreements from entering into agreements on certain terms with other potential collaborators. Immunic may not be able to negotiate collaborations on acceptable terms, or at all. If that were to occur, Immunic may have to curtail the development of a particular product, reduce or delay its development program or one or more of its other development programs, delay its potential commercialization or reduce the scope of its sales or marketing activities, or increase its expenditures and undertake development or commercialization activities at its own expense. If Immunic elects to increase its expenditures to fund development or commercialization activities on its own, Immunic may need to obtain additional capital, which may not be available to Immunic on acceptable terms or at all. If Immunic does not have sufficient funds, Immunic will not be able to bring its product candidates to market and generate product revenue. If Immunic does enter into a new collaboration agreement, it could be subject to the following risks, each of which may materially harm Immunic s business, commercialization prospects and financial condition:

- Immunic may not be able to control the amount or timing of resources that the collaborator devotes to the product development program;
- the collaborator may experience financial difficulties and thus not commit sufficient financial resources to the product development program;
- Immunic may be required to relinquish important rights such as marketing, distribution and intellectual property rights;

a collaborator could move forward with a competing product developed either independently or in collaboration with third parties, including Immunic s competitors; or

business combinations or significant changes in a collaborator s business strategy may adversely affect Immunic s willingness to complete its obligations under any arrangement.

Coverage and reimbursement may be limited or unavailable in certain market segments for Immunic s product candidates, which could make it difficult for Immunic to sell its products profitably.

The pricing, coverage, and reimbursement of Immunic s approved products, if any, must be sufficient to support its commercial efforts and other development programs, and the availability and adequacy of coverage and

Table of Contents

reimbursement by third-party payors, including governmental and private insurers, are essential for most patients to be able to afford expensive treatments. Sales of Immunic s approved products, if any, will depend substantially, both domestically and abroad, on the extent to which the costs of its approved products, if any, will be paid for or reimbursed by health maintenance, managed care, pharmacy benefit and similar healthcare management organizations, or government payors and private payors. If coverage and reimbursement are not available, or are available only in limited amounts, Immunic may have to subsidize or provide products for free or Immunic may not be able to successfully commercialize its products.

In addition, there is significant uncertainty related to the insurance coverage and reimbursement for newly approved products. In the United States, the principal decisions about coverage and reimbursement for new drugs are typically made by the CMS, an agency within the U.S. Department of Health and Human Services, as CMS decides whether and to what extent a new drug will be covered and reimbursed under Medicare. Private payors tend to follow the coverage reimbursement policies established by CMS to a substantial degree. It is difficult to predict what CMS will decide with respect to reimbursement for novel product candidates such as Immunic s and what reimbursement codes its product candidates may receive if approved.

Outside the United States, international operations are generally subject to extensive governmental price controls and other price-restrictive regulations, and Immunic believes the increasing emphasis on cost-containment initiatives in Europe, Canada and other countries has and will continue to put pressure on the pricing and usage of products. In many countries, the prices of products are subject to varying price control mechanisms as part of national health systems. Price controls or other changes in pricing regulation could restrict the amount that Immunic is able to charge for its products, if any. Accordingly, in markets outside the United States, the potential revenue may be insufficient to generate commercially reasonable revenue and profits.

Moreover, increasing efforts by governmental and private payors in the United States and abroad to limit or reduce healthcare costs may result in restrictions on coverage and the level of reimbursement for new products and, as a result, they may not cover or provide adequate payment for its products. Immunic expects to experience pricing pressures in connection with products due to the increasing trend toward managed healthcare, including the increasing influence of health maintenance organizations and additional legislative changes. The downward pressure on healthcare costs in general, and prescription drugs in particular, has and is expected to continue to increase in the future. As a result, profitability of Immunic s products, if any, may be more difficult to achieve even if they receive regulatory approval.

Immunic faces substantial competition, which may result in others discovering, developing or commercializing products before, or more successfully, than Immunic does.

The development and commercialization of new drug products is highly competitive. Immunic faces competition from major pharmaceutical companies, specialty pharmaceutical companies, biotechnology companies, universities and other research institutions worldwide with respect to its product candidates that it may seek to develop or commercialize in the future.

Many of Immunic s competitors have materially greater name recognition and financial, manufacturing, marketing, research and drug development resources than it does. Additional mergers and acquisitions in the biotechnology and pharmaceutical industries may result in even more resources being concentrated in its competitors. Large pharmaceutical companies in particular have extensive expertise in preclinical and clinical testing and in obtaining regulatory approvals for drugs. In addition, academic institutions, government agencies, and other public and private organizations conducting research may seek patent protection with respect to potentially competitive products or technologies. These organizations may also establish exclusive collaborative or licensing relationships with Immunic s

competitors.

If Immunic s competitors obtain marketing approval from the FDA or comparable foreign regulatory authorities for their product candidates more rapidly than Immunic does, it could result in Immunic s competitors

Table of Contents

establishing a strong market position before Immunic is able to enter the market. Third-party payors, including governmental and private insurers, also may encourage the use of generic products. Failure of Immunic s product candidates to effectively compete against established treatment options or in the future with new products currently in development would harm Immunic s business, financial condition, results of operations and prospects.

Price controls may be imposed in foreign markets, which may adversely affect Immunic s future profitability.

In some countries, particularly member states of the European Union, the pricing of prescription drugs is subject to governmental control. In these countries, pricing negotiations with governmental authorities can take considerable time after receipt of marketing approval for a product. In addition, there can be considerable pressure by governments and other stakeholders on prices and reimbursement levels, including as part of cost containment measures. Political, economic and regulatory developments may further complicate pricing negotiations, and pricing negotiations may continue after reimbursement has been obtained. Reference pricing used by various European Union member states and parallel distribution, or arbitrage between low-priced and high-priced member states, can further reduce prices. In some countries, Immunic may be required to conduct a clinical trial or other studies that compare the cost-effectiveness of its product candidates to other available therapies in order to obtain or maintain reimbursement or pricing approval. Publication of discounts by third-party payors or authorities may lead to further pressure on the prices or reimbursement levels within the country of publication and other countries. If reimbursement of Immunic s products is unavailable or limited in scope or amount, or if pricing is set at unsatisfactory levels, Immunic s business could be adversely affected.

Risks Related to Third Parties

Immunic relies on third-party suppliers and other third parties for production of its product candidates and Immunic s dependence on these third parties may impair the advancement of its research and development programs and the development of its product candidates.

Immunic does not currently own or operate manufacturing facilities for clinical or commercial production of its product candidates. Immunic lacks the resources and the capability to manufacture any of its product candidates on a clinical or commercial scale. Instead, Immunic relies on, and expects to continue to rely on, third parties for the supply of raw materials and manufacture of drug supplies necessary to conduct its preclinical studies and clinical trials. Immunic s reliance on third parties may expose Immunic to more risk than if Immunic was to manufacture its current product candidates or other products itself. Delays in production by third parties could delay Immunic s clinical trials or have an adverse impact on any commercial activities. In addition, the fact that Immunic is dependent on third parties for the manufacture of and formulation of its product candidates means that Immunic is subject to the risk that the products may have manufacturing defects that Immunic has limited ability to prevent or control. Although Immunic oversees these activities to ensure compliance with its quality standards, budgets and timelines, Immunic has had and will continue to have less control over the manufacturing of its product candidates than potentially would be the case if it was to manufacture its product candidates. Further, the third parties Immunic deals with could have staffing difficulties, might undergo changes in priorities or may become financially distressed, which would adversely affect the manufacturing and production of Immunic s product candidates. In addition, a third party could be acquired by, or enter into an exclusive arrangement with, one of Immunic s competitors, which would adversely affect Immunic s ability to access the formulations it requires.

The facilities used by Immunic s current contract manufacturers and any future manufacturers to manufacture Immunic s product candidates must be inspected by the FDA after Immunic submits its NDA. Immunic does not control the manufacturing process of, and is completely dependent on, its contract manufacturers for compliance with the regulatory requirements, known as cGMPs, for manufacture of both active drug substances and finished drug

products. If Immunic s contract manufacturers cannot successfully manufacture material that conforms to Immunic s specifications and the strict regulatory requirements of the FDA or others, the FDA may refuse to

Table of Contents

approve Immunic s NDA. If the FDA or a comparable foreign regulatory authority does not approve Immunic s NDA because of concerns about the manufacture of its product candidates or if significant manufacturing issues arise in the future, Immunic may need to find alternative manufacturing facilities, which would significantly impact its ability to develop its product candidates, obtain marketing approval of its NDA or to continue to market its product candidates, if approved. Although Immunic is ultimately responsible for ensuring compliance with these regulatory requirements, Immunic does not have day-to-day control over a contract manufacturing organization, or CMO, or other third-party manufacturer s compliance with applicable laws and regulations, including cGMPs and other laws and regulations, such as those related to environmental health and safety matters. Any failure to achieve and maintain compliance with these laws, regulations and standards could subject Immunic to the risk that Immunic may have to suspend the manufacturing of its product candidates or that obtained approvals could be revoked, which would adversely affect Immunic s business and reputation. In addition, third-party contractors, such as Immunic s CMOs, may elect not to continue to work with Immunic due to factors beyond Immunic s control. They may also refuse to work with Immunic because of their own financial difficulties, business priorities or other reasons, at a time that is costly or otherwise inconvenient for Immunic. If Immunic was unable to find adequate replacement or another acceptable solution in time, Immunic s clinical trials could be delayed or its commercial activities could be harmed.

Problems with the quality of the work of third parties, may lead Immunic to seek to terminate its working relationships and use alternative service providers. However, making this change may be costly and may delay clinical trials. In addition, it may be very challenging, and in some cases impossible, to find replacement service providers that can develop and manufacture Immunic s drug candidates in an acceptable manner and at an acceptable cost and on a timely basis. The sale of products containing any defects or any delays in the supply of necessary services could adversely affect Immunic s business, financial condition, results of operations, and prospects.

Growth in the costs and expenses of components or raw materials may also adversely affect Immunic s business, financial condition, results of operations, and prospects. Supply sources could be interrupted from time to time and, if interrupted, supplies may not be resumed (whether in part or in whole) within a reasonable timeframe and at an acceptable cost or at all.

Immunic plans to rely on third parties to conduct clinical trials for its product candidates. If these third parties do not successfully carry out their contractual duties or meet expected deadlines, it may cause delays in commencing and completing clinical trials of Immunic s product candidates or Immunic may be unable to obtain marketing approval for or commercialize its product candidates.

Clinical trials must meet applicable FDA and foreign regulatory requirements. Immunic does not have the ability to independently conduct phase 2 or phase 3 clinical trials for any of its product candidates. Immunic expects to rely on third parties, such as CROs, medical institutions, clinical investigators and contract laboratories, to conduct all of its clinical trials of its product candidates; however, Immunic remains responsible for ensuring that each of its clinical trials is conducted in accordance with its investigational plan and protocol. Moreover, the FDA and other foreign regulatory authorities require Immunic to comply with IND and human subject protection regulations and current good clinical practice standards, commonly referred to as GCPs, for conducting, monitoring, recording, and reporting the results of clinical trials to ensure that the data and results are scientifically credible and accurate and that the trial subjects are adequately informed of the potential risks of participating in clinical trials. Immunic s reliance on third parties does not relieve Immunic of these responsibilities and requirements. Regulatory authorities enforce these GCPs through periodic inspections of trial sponsors, principal investigators and trial sites. If Immunic or any of its third-party contractors fail to comply with applicable GCPs, the clinical data generated in Immunic s clinical trials may be deemed unreliable and the FDA or comparable foreign regulatory authorities may require Immunic to perform additional clinical trials before approving its marketing applications. There is no assurance that upon inspection by a given regulatory authority, such regulatory authority will determine that any of Immunic s clinical trials comply with

GCPs. Immunic s failure to comply with these regulations may require Immunic to repeat clinical trials, which would delay the marketing approval process.

Table of Contents

There are significant requirements imposed on Immunic and on clinical investigators who conduct clinical trials that Immunic sponsors. Although Immunic is responsible for selecting qualified CROs or clinical investigators, providing them with the information they need to conduct the clinical trials properly, ensuring proper monitoring of the clinical trials, and ensuring that the clinical trials are conducted in accordance with the general investigational plan and protocols contained in the IND, Immunic cannot ensure that the CROs or clinical investigators will maintain compliance with all regulatory requirements at all times. The pharmaceutical industry has experienced cases where clinical investigators have been found to incorrectly record data, omit data, or even falsify data. Immunic cannot ensure that the CROs or clinical investigators in Immunic s trials will not make mistakes or otherwise compromise the integrity or validity of data, any of which would have a significant negative effect on Immunic s ability to obtain marketing approval, its business, and its financial condition.

Immunic or the third parties it relies on may encounter problems in clinical trials that may cause Immunic or the FDA or foreign regulatory agencies to delay, suspend or terminate Immunic s clinical trials at any phase. These problems could include the possibility that Immunic may not be able to manufacture sufficient quantities of materials for use in its clinical trials, conduct clinical trials at its preferred sites, enroll a sufficient number of patients for its clinical trials at one or more sites, or begin or successfully complete clinical trials in a timely fashion, if at all. Furthermore, Immunic, the FDA or foreign regulatory agencies may suspend clinical trials of Immunic s product candidates at any time if Immunic or they believe the subjects participating in the trials are being exposed to unacceptable health risks, whether as a result of adverse events occurring in Immunic s trials or otherwise, or if Immunic or they find deficiencies in the clinical trial process or conduct of the investigation.

The FDA and foreign regulatory agencies could also require additional clinical trials before or after granting of marketing approval for any products, which would result in increased costs and significant delays in the development and commercialization of such products and could result in the withdrawal of such products from the market after obtaining marketing approval. Immunic s failure to adequately demonstrate the safety and efficacy of a product candidate in clinical development could delay or prevent obtaining marketing approval of the product candidate and, after obtaining marketing approval, data from post-approval studies could result in the product being withdrawn from the market, either of which would likely have a material adverse effect on Immunic s business.

Immunic may be unable to realize the potential benefits of any collaboration.

Even if Immunic is successful in entering into a collaboration with respect to the development and/or commercialization of one or more product candidates, there is no guarantee that the collaboration will be successful. Collaborations may pose a number of risks, including:

- collaborators often have significant discretion in determining the efforts and resources that they will apply to the collaboration, and may not commit sufficient resources to the development, marketing or commercialization of the product or products that are subject to the collaboration;
- collaborators may not perform their obligations as expected;
- any such collaboration may significantly limit Immunic s share of potential future profits from the associated program, and may require it to relinquish potentially valuable rights to its current product candidates, potential products or proprietary technologies or grant licenses on terms that are not favorable to Immunic;

collaborators may cease to devote resources to the development or commercialization of Immunic s product candidates if the collaborators view its product candidates as competitive with their own products or product candidates;

disagreements with collaborators, including disagreements over proprietary rights, contract interpretation or the course of development, might cause delays or termination of the development or commercialization of product candidates, and might result in legal proceedings, which would be time consuming, distracting and expensive;

Table of Contents

collaborators may be impacted by changes in their strategic focus or available funding, or business combinations involving them, which could cause them to divert resources away from the collaboration;

collaborators may infringe the intellectual property rights of third parties, which may expose Immunic to litigation and potential liability;

the collaborations may not result in Immunic achieving revenues to justify such transactions; and

collaborations may be terminated and, if terminated, may result in a need for Immunic to raise additional capital to pursue further development or commercialization of the applicable product candidate.

As a result, a collaboration may not result in the successful development or commercialization of Immunic s product candidates.

Immunic enters into various contracts in the normal course of its business in which Immunic indemnifies the other party to the contract. In the event Immunic has to perform under these indemnification provisions, it could have a material adverse effect on its business, financial condition and results of operations.

In the normal course of business, Immunic periodically enters into academic, commercial, service, collaboration, licensing, consulting and other agreements that contain indemnification provisions. With respect to Immunic s academic and other research agreements, Immunic typically indemnifies the institution and related parties from losses arising from claims relating to the products, processes or services made, used, sold or performed pursuant to the agreements for which Immunic has secured licenses, and from claims arising from Immunic s or its sublicensees exercise of rights under the agreement.

Should Immunic s obligation under an indemnification provision exceed applicable insurance coverage or if Immunic were denied insurance coverage, Immunic s business, financial condition and results of operations could be adversely affected. Similarly, if Immunic is relying on a collaborator to indemnify Immunic and the collaborator is denied insurance coverage or the indemnification obligation exceeds the applicable insurance coverage, and if the collaborator does not have other assets available to indemnify Immunic, its business, financial condition and results of operations could be adversely affected.

If Immunic s contractors fail to comply with continuing regulations, Immunic or they may be subject to enforcement action that could adversely affect Immunic.

If any of Immunic s contractors fail to comply with the requirements of the FDA and other applicable U.S. or foreign governmental or regulatory authorities or previously unknown problems with Immunic s products, manufacturers or manufacturing processes are discovered, Immunic or the contractor could be subject to administrative or judicially imposed sanctions, including: restrictions on the products, the manufacturers or manufacturing processes Immunic uses, warning letters, civil or criminal penalties, fines, injunctions, product seizures or detentions, import bans, voluntary or mandatory product recalls and publicity requirements, suspension or withdrawal of regulatory approvals, total or partial suspension of production, and refusal to approve pending applications for marketing approval of new products to approved applications.

Risks Related to Immunic s Intellectual Property

Immunic s proprietary rights may not adequately protect its technologies and product candidates.

Immunic s commercial success will depend in part on its ability to obtain additional patents and protect its existing patent position as well as its ability to maintain adequate protection of other intellectual property for its technologies, product candidates, and any future products in the United States and other countries. If Immunic does not adequately protect its intellectual property, competitors may be able to use Immunic s technologies and erode or negate any competitive advantage Immunic may have, which could harm Immunic s business and

Table of Contents

ability to achieve profitability. The laws of some foreign countries do not protect Immunic s proprietary rights to the same extent or in the same manner as U.S. laws, and Immunic may encounter significant problems in protecting and defending its proprietary rights in these countries. Immunic will be able to protect its proprietary rights from unauthorized use by third parties only to the extent that Immunic s proprietary technologies, product candidates and any future products are covered by valid and enforceable patents or are effectively maintained as trade secrets.

Immunic applies for patents covering both its technologies and product candidates, as it deems appropriate. However, Immunic may fail to apply for patents on important technologies or product candidates in a timely fashion, or at all. Immunic s existing patents and any future patents it obtains may not be sufficiently broad to prevent others from practicing its technologies or from developing competing products and technologies. Immunic cannot be certain that its patent applications will be approved or that any patents issued will adequately protect Immunic s intellectual property.

Moreover, the patent positions of pharmaceutical companies are highly uncertain and involve complex legal and factual questions for which important legal principles are evolving and remain unresolved. As a result, the validity and enforceability of patents cannot be predicted with certainty. In addition, Immunic does not know whether:

- Immunic or its licensors were the first to make the inventions covered by each of Immunic s issued patents and pending patent applications;
- Immunic or its licensors were the first to file patent applications for these inventions;
- any of the patents that cover Immunic s product candidates will be eligible to be listed in the FDA s compendium of Approved Drug Products with Therapeutic Equivalence Evaluation, sometimes referred to as the FDA s Orange Book;
- others will independently develop similar or alternative technologies or duplicate any of Immunic s technologies;
- any of Immunic s or its licensors pending patent applications will result in issued patents;
- any of Immunic s or its licensors patents will be valid or enforceable;
- any patents issued to Immunic or its licensors and collaborators will provide Immunic with any competitive advantages, or will be challenged by third parties;
- Immunic will develop additional proprietary technologies that are patentable;

the U.S. government will exercise any of its statutory rights to Immunic s intellectual property that was developed with government funding; or

Immunic s business may infringe the patents or other proprietary rights of others.

The actual protection afforded by a patent varies based on products or processes, from country to country and depends upon many factors, including the type of patent, the scope of its coverage, the availability of regulatory related extensions, the availability of legal remedies in a particular country, the validity and enforceability of the patents and Immunic s financial ability to enforce its patents and other intellectual property. Immunic s ability to maintain and solidify its proprietary position for its products will depend on its success in obtaining effective claims and enforcing those claims once granted. Immunic s issued patents and those that may issue in the future, or those licensed to Immunic, may be challenged, narrowed, invalidated or circumvented, and the rights granted under any issued patents may not provide Immunic with proprietary protection or competitive advantages against competitors with similar products. Due to the extensive amount of time required for the development, testing and regulatory review of a potential product, it is possible that, before any of Immunic s product candidates can be commercialized, any related patent may expire or remain in force for only a short period following commercialization, thereby reducing any advantage of the patent.

Table of Contents

Immunic may also rely on trade secrets to protect some of its technology, especially where Immunic does not believe patent protection is appropriate or obtainable. However, trade secrets are difficult to maintain. While Immunic uses reasonable efforts to protect its trade secrets, Immunic s or any of its collaborators employees, consultants, contractors or scientific and other advisors may unintentionally or willfully disclose Immunic s proprietary information to competitors and Immunic may not have adequate remedies in respect of that disclosure. Enforcement of claims that a third party has illegally obtained and is using trade secrets is expensive, time consuming and uncertain. In addition, foreign courts are sometimes less willing than U.S. courts to protect trade secrets. If Immunic s competitors independently develop equivalent knowledge, methods and know-how, Immunic would not be able to assert its trade secrets against them and Immunic s business could be harmed.

Immunic is a party to license agreements under which Immunic licenses intellectual property and receives commercialization rights relating to certain of its Product Candidates. If Immunic fails to comply with obligations in such agreements or otherwise experience disruptions to its business relationships with its licensors, Immunic could lose license rights that are important to its business; any termination of such agreements would adversely affect Immunic s business.

For instance, in October 2018, Immunic and Daiichi Sankyo Co., Ltd., Tokyo, Japan, entered into a license and option agreement which grants Immunic an exclusive option to obtain the exclusive right to license a group of compounds, designated by Immunic as IMU-856. Under this agreement, Immunic has the rights for commercialization of IMU-856 in all countries including the U.S., Europe and Japan.

The loss of the licenses granted to Immunic under its agreements with these licensors or the rights provided therein would prevent Immunic from developing, manufacturing or marketing products covered by the license or subject to supply commitments, and could materially harm Immunic s business, financial condition, results of operations and prospects. See *Immunic Business Intellectual Property Licenses and Royalties* for a description of the material terms of these agreements.

Immunic may not be able to protect its intellectual property rights throughout the world.

Filing, prosecuting and defending patents on product candidates in all countries throughout the world would be prohibitively expensive, and Immunic s intellectual property rights in some countries outside the United States can be less extensive than those in the United States. In addition, the laws of some foreign countries do not protect intellectual property rights to the same extent as federal and state laws in the United States. For example, many foreign countries have compulsory licensing laws under which a patent owner must grant licenses to third parties. Consequently, Immunic may not be able to prevent third parties from practicing Immunic s inventions in all countries outside the United States, or from selling or importing products made using Immunic s inventions in and into the United States or other jurisdictions. Competitors may use Immunic s technologies in jurisdictions where Immunic has not obtained patent protection to develop their own products and further, may export otherwise infringing products to territories where Immunic has patent protection, but enforcement rights are not as strong as those in the United States. These products may compete with Immunic s product candidates in jurisdictions where Immunic does not have any issued patents and Immunic s patent claims or other intellectual rights may not be effective or sufficient to prevent them from so competing.

Many companies have encountered significant problems in protecting and defending intellectual property rights in foreign jurisdictions. The legal systems of certain countries do not favor the enforcement of patents and other intellectual property protection, which could make it difficult for Immunic to stop the infringement of its patents generally. Proceedings to enforce Immunic s patent rights in foreign jurisdictions could result in substantial costs and divert Immunic s efforts and attention from other aspects of its business, could put its patents at risk of being

invalidated or interpreted narrowly and its patent applications at risk of not issuing and could provoke third parties to assert claims against Immunic. Immunic may not prevail in any lawsuits that it initiates and the damages or other remedies awarded, if any, may not be commercially meaningful. Accordingly, Immunic s efforts to enforce its intellectual property rights around the world may be inadequate to obtain a significant commercial advantage from the intellectual property that it develops or licenses.

Table of Contents

If Immunic does not obtain patent term extension in the United States under the Hatch-Waxman Act and in foreign countries under similar legislation, thereby potentially extending the term of marketing exclusivity for its product candidates, Immunic s business may be materially harmed.

Depending on the timing, duration and specifics of FDA marketing approval of Immunic s product candidates, if any, one of the U.S. patents covering each of such approved product(s) or the use thereof may be eligible for up to five years of patent term restoration under the Hatch-Waxman Act. The Hatch-Waxman Act allows a maximum of one patent to be extended per FDA-approved product. Patent term extension or special protection certificates (SPC) also may be available in certain foreign countries upon regulatory approval of Immunic s product candidates. Nevertheless, Immunic may not be granted patent term extension either in the United States or in any foreign country because of, for example, failing to apply within applicable deadlines, failing to apply prior to expiration of relevant patents or this being impossible or otherwise failing to satisfy applicable requirements. Moreover, the term of extension, as well as the scope of patent protection during any such extension, afforded by the governmental authority could be less than Immunic requests.

If Immunic is unable to obtain patent term extension or restoration, or the term of any such extension is less than Immunic or its collaborators request, the period during which Immunic will have the right to exclusively market its product will be shortened and Immunic s competitors may obtain approval of competing products following Immunic s patent expiration, and Immunic s revenue could be reduced, possibly materially.

Immunic may not identify relevant patents or may incorrectly interpret the relevance, scope or expiration of a patent, which may adversely affect Immunic s ability to develop and market its product candidates.

Immunic cannot guarantee that any of its patent searches or analyses, including but not limited to the identification of relevant patents, the scope of patent claims or the expiration of relevant patents, are complete or thorough, nor can Immunic be certain that Immunic has identified each and every patent and pending application in the United States and abroad that is relevant to or necessary for the commercialization of its product candidates in any jurisdiction.

The scope of a patent claim is determined by an interpretation of the law, the written disclosure in a patent and the patent s prosecution history. Immunic s interpretation of the relevance or the scope of a patent or a pending application may be incorrect, which may negatively impact its ability to market its product candidates. Immunic may incorrectly determine that its product candidates are not covered by a third-party patent.

Many patents may cover a marketed product, including but not limited to patents covering the composition, methods of use, formulations, production processes and purification processes of or for the product. The identification of all patents and their expiration dates relevant to the production and sale of a therapeutic product is extraordinarily complex and requires sophisticated legal knowledge in the relevant jurisdiction. It may be impossible to identify all patents in all jurisdictions relevant to a marketed product. Immunic s determination of the expiration date of any patent in the United States or abroad that it considers relevant may be incorrect, which may negatively impact its ability to develop and market its product candidates.

Obtaining and maintaining Immunic s patent protection depends on compliance with various procedural, documentary, fee payment and other requirements imposed by governmental patent agencies, and Immunic s patent protection could be reduced or eliminated for non-compliance with these requirements.

The United States Patent and Trademark Office, or USPTO, and various foreign governmental patent agencies require compliance with a number of procedural, documentary, fee payment and other similar provisions during the patent prosecution process. Periodic maintenance fees, renewal fees, annuity fees and various other governmental fees on any

issued patent and/or pending patent applications are due to be paid to the USPTO and foreign patent agencies in several stages over the lifetime of a patent or patent application. Immunic employs an outside firm and relies on its outside counsel to pay these fees. While an inadvertent lapse may sometimes be

Table of Contents

cured by payment of a late fee or by other means in accordance with the applicable rules, there are many situations in which noncompliance can result in abandonment or lapse of the patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. If Immunic fails to maintain the patents and patent applications directed to its product candidates, Immunic s competitors might be able to enter the market earlier than should otherwise have been the case, which would have a material adverse effect on Immunic s business.

The patent protection for Immunic s product candidates may expire before Immunic is able to maximize their commercial value, which may subject Immunic to increased competition and reduce or eliminate its opportunity to generate product revenue.

The patents for Immunic s product candidates have varying expiration dates and, if these patents expire, Immunic may be subject to increased competition and Immunic may not be able to recover its development costs or market any of its approved products profitably. In some of the larger potential market territories, such as the United States and Europe, patent term extension or restoration may be available to compensate for time taken during aspects of the product s development and regulatory review. However, Immunic cannot be certain that such an extension will be granted, or if granted, what the applicable time period or the scope of patent protection afforded during any extension period will be. In addition, even though some regulatory authorities may provide some other exclusivity for a product under their own laws and regulations, Immunic may not be able to qualify the product or obtain the exclusive time period. If Immunic is unable to obtain patent term extension/restoration or some other exclusivity, Immunic could be subject to increased competition and its opportunity to establish or maintain product revenue could be substantially reduced or eliminated. Furthermore, Immunic may not have sufficient time to recover its development costs prior to the expiration of its U.S. and foreign patents.

Immunic may become involved in lawsuits to protect its patents or other intellectual property rights, which could be expensive, time-consuming and ultimately unsuccessful.

Competitors may infringe Immunic s patents or other intellectual property rights. To counter infringement or unauthorized use, Immunic may be required to file infringement claims, directly or through its licensors, which can be expensive and time consuming. In addition, in an infringement proceeding, a court may decide that a patent of Immunic s licensor is not valid or is unenforceable, or may refuse to stop the other party from using the technology at issue on the grounds that Immunic s patents do not cover the technology in question. An adverse result in any litigation or defense proceedings could put one or more of the patents Immunic licenses at risk of being invalidated or interpreted narrowly and could put Immunic s licensors patent applications at risk of not issuing.

Interference proceedings brought by the USPTO may be necessary to determine the priority of inventions with respect to patents of Immunic s licensors and patent applications or those of Immunic s current or future collaborators. An unfavorable outcome could require Immunic to cease using the technology or to attempt to license rights to it from the prevailing party. Immunic s business could be harmed if a prevailing party does not offer Immunic a license on terms that are acceptable to Immunic. Litigation or interference proceedings may fail and, even if successful, may result in substantial costs and distraction of Immunic s management and other employees. Immunic may not be able to prevent, alone or with its collaborators, misappropriation of its proprietary rights, particularly in countries where the laws may not protect those rights as fully as in the United States.

Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of Immunic s confidential and proprietary information could be compromised by disclosure during this type of litigation. In addition, there could be public announcements of the results of hearings, motions or other interim proceedings or developments. If securities analysts or investors perceive these results to be negative, it could have a substantial adverse effect on the price of Immunic s common stock.

99

Table of Contents

Third-party claims of intellectual property infringement or misappropriation may adversely affect Immunic s business and could prevent Immunic from developing or commercializing its product candidates.

Immunic s commercial success depends in part on Immunic not infringing the patents and proprietary rights of third parties. There is a substantial amount of litigation, both within and outside the United States, involving patent and other intellectual property rights in the biotechnology and pharmaceutical industries, including patent infringement lawsuits, interferences, oppositions, ex-parte review and inter-parte reexamination and post-grant review proceedings before the USPTO and corresponding foreign patent offices. Numerous U.S. and foreign issued patents and pending patent applications owned by third parties exist in the fields in which Immunic is developing and may develop its product candidates. As the biotechnology and pharmaceutical industries expand and more patents are issued, the risk increases that Immunic s product candidates may be subject to claims of infringement of the patent rights of third parties. If a third party claims that Immunic infringes on their products or technology, Immunic could face a number of issues, including:

- infringement and other intellectual property claims which, with or without merit, can be expensive and time-consuming to litigate and can divert management s attention from Immunic s core business;
- substantial damages for past infringement, which Immunic may have to pay if a court decides that its product infringes on a competitor s patent;
- a court prohibiting Immunic from selling or licensing its product unless the patent holder licenses the patent to Immunic, which the collaborator would not be required to do;
- if a license is available from a patent holder, Immunic may have to pay substantial royalties or grant cross licenses to Immunic s patents; and
- redesigning Immunic s processes so they do not infringe, which may not be possible or could require substantial funds and time.

Third parties may assert that Immunic is employing their proprietary technology without authorization. There may be third-party patents or patent applications with claims to materials, formulations, methods of manufacture or methods for treatment related to the use or manufacture of Immunic s product candidates, that Immunic failed to identify. For example, applications filed before November 29, 2000 and certain applications filed after that date that will not be filed outside the United States remain confidential until issued as patents. Except for the preceding exceptions, patent applications in the United States and elsewhere are generally published only after a waiting period of approximately 18 months after the earliest filing. Therefore, patent applications covering Immunic s product candidates could have been filed by others without the knowledge of Immunic or its licensors. Additionally, pending patent applications which have been published can, subject to certain limitations, be later amended in a manner that could cover Immunic s product candidates or the use or manufacture of its product candidates. Immunic may also face a claim of misappropriation if a third party believes that it inappropriately obtained and used trade secrets of such third party. If Immunic is found to have misappropriated a third party s trade secrets, Immunic may be prevented from further using such trade secrets, limiting its ability to develop its product candidates, and Immunic may be required to pay damages.

If any third-party patents were held by a court of competent jurisdiction to cover aspects of Immunic s materials, formulations, methods of manufacture or methods for treatment, the holders of any such patents would be able to block Immunic s ability to develop and commercialize the applicable product candidate until such patent expired or unless Immunic obtains a license. These licenses may not be available on acceptable terms, if at all. Even if Immunic was able to obtain a license, the rights may be nonexclusive, which could result in Immunic s competitors gaining access to the same intellectual property.

Ultimately, Immunic could be prevented from commercializing a product, or be forced to cease some aspect of its business operations, if, as a result of actual or threatened patent infringement claims, Immunic is unable to enter into licenses on acceptable terms. In addition, during the course of any patent or other intellectual property litigation, there could be public announcements of the results of hearings, rulings on motions, and other interim

Table of Contents

proceedings in the litigation. If securities analysts or investors regard these announcements as negative, the perceived value of Immunic s product candidates, programs, or intellectual property could be diminished. Accordingly, the market price of Immunic s common stock may decline.

Parties making claims against Immunic may obtain injunctive or other equitable relief, which could effectively block Immunic s ability to further develop and commercialize one or more of its product candidates. Defending against claims of patent infringement or misappropriation of trade secrets could be costly and time-consuming, regardless of the outcome. Thus, even if Immunic was to ultimately prevail, or to settle at an early stage, such litigation could burden Immunic with substantial unanticipated costs. In addition, litigation or threatened litigation could result in significant demands on the time and attention of Immunic s management team, distracting them from the pursuit of other company business. In the event of a successful claim of infringement against Immunic, Immunic may have to pay substantial damages, including treble damages and attorneys fees for willful infringement, pay royalties, redesign its infringing products or obtain one or more licenses from third parties, which may be impossible or require substantial time and monetary expenditure. In addition, the uncertainties associated with litigation could have a material adverse effect on Immunic s ability to raise the funds necessary to continue its clinical trials, continue its research programs, license necessary technology from third parties, or enter into development collaborations that would help Immunic bring its product candidates to market.

Changes in U.S. patent law could diminish the value of patents in general, thereby impairing Immunic s ability to protect its product candidates.

As is the case with other pharmaceutical companies, Immunic s success is heavily dependent on intellectual property, particularly on obtaining and enforcing patents and patent rights. Obtaining and enforcing patents and patent rights in the specialty pharmaceutical industry involves both technological and legal complexity, and therefore, is costly, time-consuming and inherently uncertain. In addition, the United States has recently enacted and is currently implementing wide-ranging patent reform legislation. Further, several recent U.S. Supreme Court rulings have either narrowed the scope of patent protection available in certain circumstances or weakened the rights of patent owners in certain situations. In addition to increasing uncertainty with regard to Immunic s ability to obtain patents in the future, this combination of events has created uncertainty with respect to the value of patents and patent rights, once obtained.

For Immunic s U.S. patent applications containing a claim not entitled to priority before March 16, 2013, there is a greater level of uncertainty in the patent law. In September 2011, the Leahy-Smith America Invents Act, or the America Invents Act, or AIA, was signed into law. The AIA includes a number of significant changes to U.S. patent law, including provisions that affect the way patent applications will be prosecuted, reviewed after issuance, and may also affect patent litigation. The USPTO is currently developing regulations and procedures to govern administration of the AIA, and many of the substantive changes to patent law associated with the AIA. It is not clear what other, if any, impact the AIA will have on the operation of Immunic s business. Moreover, the AIA and its implementation could increase the uncertainties and costs surrounding the prosecution of patent applications and the enforcement or defense of patent rights, all of which could have a material adverse effect on Immunic s business and financial condition.

An important change introduced by the AIA is that, as of March 16, 2013, the United States transitioned to a first-inventor-to-file system for deciding which party should be granted a patent when two or more patent applications are filed by different parties claiming the same invention. A third party that files a patent application in the USPTO after that date but before a licensor or Immunic could therefore be awarded a patent covering an invention of Immunic s even if said licensor Immunic had made the invention before it was made by the third party. This will require Immunic to be cognizant going forward of the time from invention to filing of a patent application. Furthermore, Immunic s ability to obtain and maintain valid and enforceable patent rights depends on whether the

differences between the licensor s or Immunic s technology and the prior art allow Immunic s technology to be patentable over the prior art. Since patent applications in the United States and most other

countries are confidential for a period of time after filing, Immunic cannot be certain that a licensor or it was the first to either (a) file any patent application related to Immunic s product candidates or (b) invent any of the inventions claimed in Immunic s patents or patent applications.

Among some of the other changes introduced by the AIA are changes that limit where a patentee may file a patent infringement suit and providing opportunities for third parties to challenge any issued patent in the USPTO. This applies to all U.S. patents, even those issued before March 16, 2013. Because of a lower evidentiary standard in USPTO proceedings compared to the evidentiary standard in United States federal court necessary to invalidate a patent claim, a third party could potentially provide evidence in a USPTO proceeding sufficient for the USPTO to hold a claim invalid as unpatentable even though the same evidence may be insufficient to invalidate the claim if first presented in a district court action. Accordingly, a third party may attempt to use the USPTO procedures to invalidate patent rights that would not have been invalidated if first challenged by the third party as a defendant in a district court action.

Depending on decisions by the U.S. Congress, the federal courts, and the USPTO, the laws and regulations governing patents could change in unpredictable ways that would weaken Immunic s ability to obtain new patents or to enforce its existing patents and patents that Immunic might obtain in the future.

Because of the expense and uncertainty of litigation, Immunic may not be in a position to enforce its intellectual property rights against third parties.

Because of the expense and uncertainty of litigation, Immunic may conclude that even if a third party is infringing the patents of Immunic s licensors or Immunic or other intellectual property rights, the risk-adjusted cost of bringing and enforcing such a claim or action may be too high or not in the best interest of Immunic or its shareholders. In such cases, Immunic may decide that the more prudent course of action is to simply monitor the situation or initiate or seek some other non-litigious action or solution.

Intellectual property rights do not address all potential threats to Immunic s competitive advantage.

The degree of future protection afforded by Immunic s intellectual property rights is uncertain because intellectual property rights have limitations, and may not adequately protect Immunic s business, or permit Immunic to maintain its competitive advantage. The following examples are illustrative:

- Others may be able to make products that are similar to Immunic s product candidates but that are not covered by the claims of the patents that Immunic licenses from others or may license or own in the future.

- Others may independently develop similar or alternative technologies or otherwise circumvent any of Immunic s technologies without infringing its intellectual property rights.

- Any of Immunic s collaborators might not have been the first to conceive and reduce to practice the inventions covered by the patents or patent applications that Immunic licenses or will, in the future, own or license.

Any of Immunic s collaborators might not have been the first to file patent applications covering certain of the patents or patent applications that Immunic licenses or will, in the future, license.

Issued patents that have been licensed to Immunic may not provide Immunic with any competitive advantage, or may be held invalid or unenforceable, as a result of legal challenges by Immunic s competitors.

Immunic s competitors might conduct research and development activities in countries where Immunic does not have license rights, or in countries where research and development safe harbor laws exist, and then use the information learned from such activities to develop competitive products for sale in Immunic s major commercial markets.

Table of Contents

Ownership of patents or patent applications licensed to Immunic may be challenged by third parties.

The patents of third parties or pending or future applications of third parties, if issued, may have an adverse effect on Immunic s business.

Some of Immunic s intellectual property relies on trade secrets.

Immunic has not filed patents for or has publicly disclosed some of the important properties of its development candidates. Despite adequate efforts by Immunic, those trade secrets may become public knowledge thereby potentially allowing competitors to develop similar products.

Confidentiality agreements with employees, consultants and others may not adequately prevent disclosure of trade secrets and protect other proprietary information.

Immunic considers proprietary trade secrets and/or confidential know-how and unpatented know-how to be important to its business. Immunic may rely on trade secrets and/or confidential know-how to protect its technology, especially where patent protection is believed by Immunic to be of limited value. However, trade secrets and/or confidential know-how can be difficult to maintain as confidential.

To protect this type of information against disclosure or appropriation by competitors, Immunic s policy is to require its employees, consultants, contractors and advisors to enter into confidentiality agreements with Immunic. However, current or former employees, consultants, contractors and advisers may unintentionally or willfully disclose Immunic s confidential information to competitors, and confidentiality agreements may not provide an adequate remedy in the event of unauthorized disclosure of confidential information. Enforcing a claim that a third party obtained illegally and is using trade secrets and/or confidential know-how is expensive, time consuming and unpredictable. The enforceability of confidentiality agreements may vary from jurisdiction to jurisdiction.

Failure to obtain or maintain trade secrets and/or confidential know-how trade protection could adversely affect Immunic s competitive position. Moreover, Immunic s competitors may independently develop substantially equivalent proprietary information and may even apply for patent protection in respect of the same. If successful in obtaining such patent protection, Immunic s competitors could limit Immunic s use of its trade secrets and/or confidential know-how.

Immunic may need to license certain intellectual property from third parties, and such licenses may not be available or may not be available on commercially reasonable terms.

A third party may hold intellectual property, including patent rights that are important or necessary to the development or commercialization of Immunic s product candidates. It may be necessary for Immunic to use the patented or proprietary technology of third parties to commercialize its product candidates, in which case Immunic would be required to obtain a license from these third parties. Such a license may not be available on commercially reasonable terms or at all, which could materially harm Immunic s business.

Immunic may be subject to claims that its employees, consultants or independent contractors have wrongfully used or disclosed confidential information of third parties.

Immunic has received confidential and proprietary information from third parties. In addition, Immunic employs individuals who were previously employed at other biotechnology or pharmaceutical companies. Immunic may be subject to claims that Immunic or its employees, consultants or independent contractors have inadvertently or

otherwise improperly used or disclosed confidential information of these third parties or Immunic s employees former employers.

Table of Contents

Further, Immunic may be subject to ownership disputes in the future arising, for example, from conflicting obligations of consultants or others who are involved in developing Immunic s product candidates. Immunic may also be subject to claims that former employees, consultants, independent contractors, collaborators or other third parties have an ownership interest in Immunic s patents or other intellectual property. Litigation may be necessary to defend against these and other claims challenging Immunic s right to and use of confidential and proprietary information. If Immunic fails in defending any such claims, in addition to paying monetary damages, Immunic may lose its rights therein. Such an outcome could have a material adverse effect on Immunic s business.

Even if Immunic is successful in defending against these claims, litigation could result in substantial cost and be a distraction to Immunic s management and employees.

Immunic may be subject to claims challenging the inventorship or ownership of its patents and other intellectual property.

Immunic may also be subject to claims that former employees, collaborators or other third parties have an ownership interest in its patents and other intellectual property. Immunic may be subject to ownership disputes in the future arising, for example, from conflicting obligations of consultants or others who are involved in developing Immunic s product candidates. Litigation may be necessary to defend against these and other claims challenging inventorship or ownership. If Immunic fails in defending any such claims, in addition to paying monetary damages, Immunic may lose valuable intellectual property rights, such as exclusive ownership of, or right to use, valuable intellectual property. Such an outcome could have a material adverse effect on Immunic s business. Even if Immunic is successful in defending against such claims, litigation could result in substantial costs and be a distraction to management and other employees.

Immunic s reliance on third parties requires Immunic to share its trade secrets, which increases the possibility that a competitor will discover them or that Immunic s trade secrets will be misappropriated or disclosed.

Because Immunic relies on third parties to assist with research and development and to manufacture its product candidates, Immunic must, at times, share trade secrets with them. Immunic seeks to protect its proprietary technology in part by entering into confidentiality agreements and, if applicable, material transfer agreements, consulting agreements or other similar agreements with its advisors, employees, third-party contractors and consultants prior to beginning research or disclosing proprietary information. These agreements typically limit the rights of the third parties to use or disclose Immunic s confidential information, including its trade secrets. Despite the contractual provisions employed when working with third parties, the need to share trade secrets and other confidential information increases the risk that such trade secrets become known by Immunic s competitors, are inadvertently incorporated into the technology of others, or are disclosed or used in violation of these agreements. Given that Immunic s proprietary position is based, in part, on its know-how and trade secrets, a competitor s discovery of Immunic s trade secrets or other unauthorized use or disclosure would impair Immunic s competitive position and may have a material adverse effect on its business.

In addition, these agreements typically restrict the ability of Immunic s advisors, employees, third-party contractors and consultants to publish data potentially relating to Immunic s trade secrets, although Immunic s agreements may contain certain limited publication rights. For example, any academic institution that Immunic may collaborate with in the future will usually expect to be granted rights to publish data arising out of such collaboration, provided that Immunic is notified in advance and given the opportunity to delay publication for a limited time period in order for Immunic to secure patent protection of intellectual property rights arising from the collaboration, in addition to the opportunity to remove confidential or trade secret information from any such publication. In the future Immunic may also conduct joint research and development programs that may require Immunic to share trade secrets under the

terms of its research and development or similar agreements. Despite Immunic s efforts to protect its trade secrets, Immunic s competitors may discover its trade secrets, either through breach of Immunic s agreements with third parties, independent development or publication of

Table of Contents

information by any of Immunic s third-party collaborators. A competitor s discovery of Immunic s trade secrets would impair Immunic s competitive position and have an adverse impact on its business.

If Immunic s trademarks and trade names are not adequately protected, then Immunic may not be able to build name recognition in its markets of interest and its business may be adversely affected.

If Immunic s trademarks and trade names are not adequately protected, then Immunic may not be able to build name recognition in its markets of interest and its business may be adversely affected. Immunic s unregistered trademarks or trade names may be challenged, infringed, circumvented or declared generic or determined to be infringing on other marks. Immunic may not be able to protect its rights to these trademarks and trade names, which Immunic needs to build name recognition among potential collaborators or customers in its markets of interest. At times, competitors may adopt trade names or trademarks similar to Immunic s, thereby impeding Immunic s ability to build brand identity and possibly leading to market confusion. In addition, there could be potential trade name or trademark infringement claims brought by owners of other registered trademarks or trademarks that incorporate variations of Immunic s unregistered trademarks or trade names. Over the long term, if Immunic is unable to successfully register its trademarks and trade names and establish name recognition based on its trademarks and trade names, then Immunic may not be able to compete effectively and its business may be adversely affected. Immunic s efforts to enforce or protect its proprietary rights related to trademarks, trade secrets, domain names, copyrights or other intellectual property may be ineffective and could result in substantial costs and diversion of resources and could adversely impact Immunic s financial condition or results of operations.

Risks Related to the Company following the Transaction

In determining whether you should approve the Transaction, the issuance of shares of Vital Therapies common stock and other matters related to the Transaction you should carefully read the following risk factors in addition to the risks described above.

The market price of the company s common stock is expected to be volatile, and the market price of its common stock may drop following the Transaction.

The market price of the company s common stock following the Transaction could be subject to significant fluctuations. Market prices for securities of early-stage pharmaceutical, biotechnology and other life sciences companies have historically been particularly volatile. Some of the factors that may cause the market price of the company s common stock to fluctuate include:

- reports on or the perception of clinical progress, or the lack thereof;
- the ability of the company to obtain regulatory approvals for its product candidates, and delays or failures to obtain such approvals;
- failure of any of the company s product candidates, if approved, to achieve commercial success;
- failure to maintain its existing third-party license and supply agreements;

failure by the company or its licensors to prosecute, maintain, or enforce its intellectual property rights;

changes in laws or regulations applicable to its product candidates;

any inability to obtain adequate supply of its product candidates or the inability to do so at acceptable prices;

adverse regulatory authority decisions;

introduction of new products, services, or technologies by its competitors;

failure to meet or exceed financial and development projections that the company may provide to the public;

Table of Contents

failure to meet or exceed the financial and development projections of the investment community;

the perception of the pharmaceutical industry by the public, legislatures, regulators and the investment community;

announcements of significant acquisitions, strategic collaborations, joint ventures, or capital commitments by the company or its competitors;

disputes or other developments relating to proprietary rights, including patents, litigation matters, and its ability to obtain patent protection for its technologies;

additions or departures of key personnel;

significant lawsuits, including patent or stockholder litigation;

if securities or industry analysts do not publish research or reports about its business, or if they issue adverse or misleading opinions regarding its business and stock;

changes in the market valuations of similar companies;

general market or macroeconomic conditions;

sales of common stock by the company or its stockholders in the future;

trading volume of its common stock;

announcements by commercial partners or competitors of new commercial products, clinical progress or the lack thereof, significant contracts, commercial relationships or capital commitments;

adverse publicity relating to the markets in which the company operates, including with respect to other products and potential products in such markets;

the introduction of technological innovations or new therapies that compete with potential products of the company;

changes in the structure of health care payment systems; and

period-to-period fluctuations in the company s financial results.

Moreover, the stock markets in general have experienced substantial volatility that has often been unrelated to the operating performance of individual companies. These broad market fluctuations may also adversely affect the trading price of the company s common stock.

In the past, following periods of volatility in the market price of a company s securities, stockholders have often instituted class action securities litigation against those companies. Such litigation, if instituted, could result in substantial costs and diversion of management attention and resources, which could significantly harm the company s profitability and reputation.

Additionally, a decrease in the stock price of the company may cause the company s common stock to no longer satisfy the continued listing standards of The Nasdaq Global Market. If the company is not able to maintain the requirements for listing on The Nasdaq Global Market, it could be delisted, which could have a materially adverse effect on its ability to raise additional funds as well as the price and liquidity of its common stock.

The company will incur costs and demands upon management as a result of complying with the laws and regulations affecting public companies.

The company will incur significant legal, accounting and other expenses that Immunic did not incur as a private company, including costs associated with public company reporting requirements. The company will also incur costs associated with corporate governance requirements, including requirements under the Sarbanes-Oxley Act,

Table of Contents

as well as new rules implemented by the SEC and Nasdaq. These rules and regulations are expected to increase the company s legal and financial compliance costs and to make some activities more time-consuming and costly. For example, the company s management team will consist of the executive officers of Immunic prior to the Transaction, some of whom have not previously managed and operated a public company. These executive officers and other personnel will need to devote substantial time to gaining expertise regarding operations as a public company and compliance with applicable laws and regulations. These rules and regulations may also make it difficult and expensive for the company to obtain directors and officers liability insurance. As a result, it may be more difficult for the company to attract and retain qualified individuals to serve on the company s board of directors or as executive officers of the company, which may adversely affect investor confidence in the company and could cause the company s business or stock price to suffer.

Because the Transaction will have the same effect as a reverse merger, this registration statement may be subject to heightened scrutiny by the SEC, and the company may not be able to attract the attention of major brokerage firms.

Additional risks may exist as a result of the company becoming a public reporting company through a transaction that will be treated the same as a reverse merger. Certain SEC rules are more restrictive when applied to reverse merger companies, such as the ability of stockholders to re-sell their shares of common stock pursuant to Rule 144, and the SEC may subject this registration statement, which is being filed with respect to the shares of Vital Therapies common stock received by investors in the Transaction, to heightened scrutiny.

In addition, security analysts of major brokerage firms may not provide coverage of the company since, because it became public through a reverse merger type of transaction, there is no incentive to brokerage firms to recommend the purchase of its common stock. In addition, because of past abuses and fraud concerns stemming primarily from a lack of public information about newly public businesses, there are many people in the securities industry and business in general who view reverse mergers and similar transactions with suspicion. Without brokerage firm and analyst coverage, there may be fewer people aware of the company and its business, resulting in fewer potential buyers of its common stock, less liquidity and lower stock prices for its investors than would be the case if it had become a public reporting company in a more traditional manner. There is no assurance that brokerage firms will want to provide analyst coverage of the company s capital stock or business in the future.

Anti-takeover provisions in the company s organizational documents and Delaware law might discourage or delay acquisition attempts for the company that you might consider favorable.

The company s amended and restated certificate of incorporation and bylaws will continue (unless amended after the closing of the Transaction) to contain provisions that may delay or prevent an acquisition or change in control of the company. The company s amended and restated certificate of incorporation and second amended and restated bylaws include provisions that:

- authorize the company s board of directors to issue without further action by the stockholders, up to 20,000,000 shares of undesignated preferred stock;

- require that any action to be taken by the company s stockholders be effected at a duly called annual or special meeting and not by written consent;

specify that special meetings of the company s stockholders can be called only by a supermajority (75%) vote of the company s directors then in office;

provide that the company s board of directors may amend or repeal the company s bylaws only pursuant to a supermajority (75%) vote of the company s directors then in office;

provide that the company s stockholders may amend or repeal the company s bylaws only pursuant to a supermajority (75% and majority of the minority, if applicable) vote of the outstanding shares of the company s capital stock;

Table of Contents

require in general the approval of a supermajority (75% and majority of the minority, if applicable) vote of the company s outstanding shares of capital stock to amend or repeal certain provisions of the company s amended and restated certificate of incorporation;

require the approval of a supermajority (75% and majority of the minority, if applicable) vote of the company s outstanding shares of capital stock to approve the sale or liquidation of the company;

establish an advance notice procedure for stockholder approvals to be brought before an annual meeting of the company s stockholders, including proposed nominations of persons for election to the company s board of directors;

provide that directors may be removed only for cause by a supermajority (75%) vote of the company s outstanding shares of capital stock;

provide that vacancies on the company s board of directors may be filled only by a majority of directors then in office, even though less than a quorum;

provide that in general the number of directors on the company s board may only be fixed from time to time by a supermajority (75%) vote of the company s directors then in office; and

establish that the company s board of directors is divided into three classes, Class I, Class II and Class III, with each class serving staggered terms.

Further, as a Delaware corporation, the company will also be subject to provisions of Delaware law, which may impair a takeover attempt that the company s stockholders may find beneficial. These anti-takeover provisions and other provisions under Delaware law could discourage, delay or prevent a transaction involving a change in control of the company, including actions that its stockholders may deem advantageous, or negatively affect the trading price of its common stock. These provisions could also discourage proxy contests and make it more difficult for you and other stockholders to elect directors of your choosing and to cause the company to take other corporate actions you desire.

The company may experience adverse consequences because of required indemnification of officers and directors.

Provisions of the company s amended and restated certificate of incorporation and bylaws provide that it will indemnify any director and officer as to liabilities incurred in their capacity as a director or officer and on those terms and conditions set forth therein to the fullest extent of Delaware law. Further, the company may purchase and maintain insurance on behalf of any such persons whether or not the company would have the power to indemnify such person against the liability insured against. The foregoing could result in substantial expenditures by the company and prevent any recovery from its officers, directors, agents and employees for losses incurred by the company as a result of their actions.

Vital Therapies and Immunic do not anticipate that the company will pay any cash dividends in the foreseeable future.

The current expectation is that the company will retain its future earnings, if any, to fund the development and growth of the company s business. As a result, capital appreciation, if any, of the common stock of the company will be your sole source of gain, if any, for the foreseeable future.

An active trading market for the company s common stock may not develop and its stockholders may not be able to resell their shares of common stock for a profit, if at all.

Prior to the Transaction, there has been no public market for Immunic s common stock. Following the closing of the Transaction, an active trading market for the company s shares of common stock may never develop or be sustained. If an active market for the company s common stock does not develop or is not sustained, it may be difficult for stockholders to sell their shares at an attractive price or at all.

Table of Contents

Future sales of shares by existing stockholders could cause the company s stock price to decline.

If existing stockholders of Vital Therapies and Immunic sell, or indicate an intention to sell, substantial amounts of the company s common stock in the public market after legal restrictions on resale discussed in this proxy statement/prospectus lapse, the trading price of the common stock of the company could decline. Based on shares outstanding as of January 15, 2019, shares expected to be issued upon completion of the Transaction, and assuming completion of Immunic s concurrent financing in connection with the Transaction, the company is expected to have outstanding a total of approximately 429,802,878 million shares of common stock immediately following the completion of the Transaction, assuming an Exchange Ratio of 735 and without giving effect to the proposed reverse stock split described in Proposal 4 in this proxy statement/prospectus. If a large number of shares are sold following the closing of the Transaction, the trading price of the company s common stock could decline.

If the ownership of the company common stock is highly concentrated, it may prevent you and other stockholders from influencing significant corporate decisions and may result in conflicts of interest that could cause the company stock price to decline.

Executive officers and directors of the company and their affiliates and entities that are related to such officers and directors are expected to beneficially own or control approximately 62% of the outstanding shares of common stock of the company following the completion of the Transaction and assuming that Immunic closes its concurrent financing immediately prior to the effective time of the Transaction. Accordingly, these executive officers, directors and their affiliates, acting as a group, will have substantial influence over the outcome of corporate actions requiring stockholder approval, including the election of directors, any merger, consolidation or sale of all or substantially all of the company assets or any other significant corporate transactions. These stockholders may also delay or prevent a change of control of the company, even if such a change of control would benefit the other stockholders of the company. The significant concentration of stock ownership may adversely affect the trading price of the company s common stock due to investors perception that conflicts of interest may exist or arise, and may adversely affect the liquidity of the company s common stock.

If equity research analysts do not publish research or reports, or publish unfavorable research or reports, about the company, its business or its market, its stock price and trading volume could decline.

The trading market for the company s common stock will be influenced by the research and reports that equity research analysts publish about it and its business. Equity research analysts may elect not to provide research coverage of the company s common stock after the completion of the Transaction, and such lack of research coverage may adversely affect the market price of its common stock. In the event it does have equity research analyst coverage, the company will not have any control over the analysts or the content and opinions included in their reports. The price of the company s common stock could decline if one or more equity research analysts downgrade its stock or issue other unfavorable commentary or research. If one or more equity research analysts ceases coverage of the company or fails to publish reports on it regularly, demand for its common stock could decrease, which in turn could cause its stock price or trading volume to decline.

Because the Transaction will result in an ownership change under Section 382 of the Code for Vital Therapies, Vital Therapies pre-Transaction net operating loss carryforwards and certain other tax attributes will be subject to limitation or elimination. The net operating loss carryforwards and certain other tax attributes of Immunic and of the company may also be subject to limitations as a result of ownership changes.

If a corporation undergoes an ownership change within the meaning of Section 382 of the Code, or Section 382, the corporation s net operating loss carryforwards and certain other tax attributes arising from before the ownership change

are subject to limitations on use after the ownership change. In general, an ownership change occurs if there is a cumulative change in the corporation s equity ownership by certain stockholders that exceeds fifty percentage points by value over a rolling three-year period. Similar rules may apply under state tax laws. The Transaction will result in an ownership change for Vital Therapies and,

Table of Contents

accordingly, Vital Therapies net operating loss carryforwards and certain other tax attributes will be subject to limitation and possibly elimination after the Transaction. Additional ownership changes in the future could result in additional limitations on the company s net operating loss carryforwards and certain other tax attributes. Consequently, even if the company achieves profitability, it may not be able to utilize a material portion of the company s net operating loss carryforwards and certain other tax attributes, which could have a material adverse effect on cash flow and results of operations.

If Immunic fails to retain accounting and finance staff with appropriate experience, its ability to maintain the financial controls required of a public company may adversely affect its business.

Immunic currently relies on third-party accounting professionals to assist Immunic with its financial accounting and compliance obligations. Immunic is seeking financial professionals with appropriate experience to maintain its financial control and reporting obligations as a public company. If Immunic is unable to identify and retain such qualified and experienced personnel, its business may be adversely affected.

If the company fails to maintain proper and effective internal controls, its ability to produce accurate financial statements on a timely basis could be impaired.

The company will be subject to the reporting requirements of the Exchange Act, the Sarbanes-Oxley Act and Nasdaq rules and regulations. The Sarbanes-Oxley Act requires, among other things, that the company maintain effective disclosure controls and procedures and internal control over financial reporting. Effective internal control over financial reporting is necessary for the company to provide reliable financial reports and, together with adequate disclosure controls and procedures, is designed to prevent fraud.

The company must perform system and process evaluation and testing of its internal control over financial reporting to allow management to report on the effectiveness of its internal controls over financial reporting in its Annual Report on Form 10-K for each year, as required by Section 404 of the Sarbanes-Oxley Act, or Section 404. As a private company, Immunic has never been required to test its internal controls within a specified period. This will require significant management efforts and will require the company to incur substantial professional fees and internal costs to expand its accounting and finance functions. The company may experience difficulty in meeting these reporting requirements in a timely manner. Any failure to implement required new or improved controls, or difficulties encountered in their implementation, could cause the company to fail to meet its reporting obligations. In addition, any testing by the company, as and when required, conducted in connection with Section 404, or any subsequent testing by the company s independent registered public accounting firm, as and when required, may reveal deficiencies in the company s internal control over financial reporting that are deemed to be significant deficiencies or material weaknesses or that may require prospective or retroactive changes to its financial statements or identify other areas for further attention or improvement.

While the company remains an emerging growth company, the company will not be required to include an attestation report on internal control over financial reporting issued by its independent registered public accounting firm as required by Section 404. There is a risk that neither the company, nor the company s independent registered public accounting firm once the company is required to obtain an attestation report on internal control over financial reporting from such firm, will be able to conclude within the prescribed timeframe that the company s internal control over financial reporting is effective as required by Section 404.

If the company is not able to comply with the requirements of Section 404 of the Sarbanes-Oxley Act, or if it is unable to maintain proper and effective internal controls, the company may not be able to produce timely and accurate financial statements. If that were to happen, the market price of its common stock could decline and it could be subject

to sanctions or investigations by Nasdaq, the SEC, or other regulatory authorities.

Table of Contents

CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS

This proxy statement/prospectus and the documents incorporated by reference into this proxy statement/prospectus contain forward-looking statements. These forward-looking statements are based on current expectations and beliefs and involve numerous risks and uncertainties that could cause actual results to differ materially from expectations. These forward-looking statements should not be relied upon as predictions of future events as we cannot assure you that the events or circumstances reflected in these statements will be achieved or will occur. You can identify forward-looking statements by the use of forward-looking terminology including believes, expects, may, will, sho seeks, intends, plans, pro forma, estimates, or anticipates or the negative of these words and phrases or other of these words and phrases or comparable terminology. All statements other than statements of historical fact are statements that could be deemed forward-looking statements. For example, forward-looking statements include, but are not limited to statements about:

- the strategies, prospects, plans, expectations and objectives of management of Vital Therapies or Immunic for future operations of the company following the closing of the Transaction;
- the progress, scope or duration of the development of product candidates or programs;
- the benefits that may be derived from product candidates or the commercial or market opportunity in any target indication;
- the ability of Vital Therapies or Immunic to protect their intellectual property rights;
- the ability of Vital Therapies to regain or maintain compliance with Nasdaq listing standards;
- the anticipated operations, financial position, losses, costs or expenses of Vital Therapies, Immunic or the company following the closing of the Transaction;
- statements regarding future economic conditions or performance;
- statements concerning proposed products or product candidates;
- the approval and closing of the Transaction, including the timing of the Transaction, the ability of Vital Therapies to solicit a sufficient number of proxies to approve the Transaction, other conditions to the completion of the Transaction, the Exchange Ratio, and relative ownership levels as of the closing of the Transaction;

the expected benefits of and potential value created by the Transaction for the stockholders of Vital Therapies;

Immunic s ability to complete the concurrent financing in connection with the Transaction; and

statements of belief and any statement of assumptions underlying any of the foregoing.

For a discussion of the factors that may cause Vital Therapies, Immunic or the company s actual results, performance or achievements following closing of the proposed Transaction to differ materially from any future results, performance or achievements expressed or implied in such forward-looking statements, or for a discussion of risk associated with the ability of Vital Therapies and Immunic to complete the Transaction and the effect of the Transaction on the business of Vital Therapies, Immunic and the company following the completion of the Transaction, see *Risk Factors* beginning on page 33. Additional factors that could cause actual results to differ materially from those expressed in the forward-looking statements are discussed in reports filed with the SEC by Vital Therapies. See *Where You Can Find More Information* beginning on page 265. There can be no assurance that the Transaction will be completed, or if it is completed, that it will close within the anticipated time period or that the expected benefits of the Transaction will be realized.

Table of Contents

If any of these risks or uncertainties materializes or any of these assumptions proves incorrect, the results of Vital Therapies, Immunic or the company following completion of the Transaction could differ materially from the forward-looking statements. All forward-looking statements in this proxy statement/prospectus are current only as of the date on which the statements were made. Vital Therapies and Immunic do not undertake any obligation (and expressly disclaim any such obligation to) to publicly update any forward-looking statement to reflect events or circumstances after the date on which any statement is made or to reflect the occurrence of unanticipated events.

Table of Contents

THE SPECIAL MEETING OF STOCKHOLDERS OF VITAL THERAPIES

Date, Time and Place

The special meeting will be held on Thursday, April 4, 2019, at 12255 El Camino Real, Suite 300, San Diego, California 92130, commencing at 9:00 a.m. local time. Vital Therapies is sending this proxy statement/prospectus to its stockholders in connection with the solicitation of proxies by the board of directors for use at the special meeting and any adjournments or postponements of the special meeting. This proxy statement/prospectus is first being furnished to stockholders on or about February [ ], 2019.

Purposes of the Special Meeting

The purposes of the special meeting are:

1. To approve the issuance of shares of Vital Therapies common stock to Immunic shareholders pursuant to the terms of the Exchange Agreement, a copy of which is attached as *Annex A*;

2. To approve the change in control of Vital Therapies resulting from the Transaction contemplated by the Exchange Agreement;

3. To approve an amendment to the amended and restated certificate of incorporation of Vital Therapies changing the Vital Therapies corporate name to Immunic, Inc. in the form attached as *Annex B*;

4. To approve an amendment to the amended and restated certificate of incorporation of Vital Therapies effecting a reverse stock split of Vital Therapies issued and outstanding common stock in accordance with a ratio to be determined by the board of directors within a range of 30 to 60 shares (or any number in between) of outstanding Vital Therapies common stock being combined and reclassified into one share of Vital Therapies common stock in the form attached as *Annex C*, which is referred to as the reverse stock split;

5. To consider and vote upon an adjournment of the special meeting, if necessary, to solicit additional proxies if there are not sufficient votes in favor of the proposals set forth above; and

6. To transact such other business as may properly come before the stockholders at the special meeting or any adjournment or postponement thereof.

Each of Proposals 1, 2, 3 and 4 are conditioned upon each other and the approval of each such proposal is a condition to the completion of the Transaction. Therefore, the Transaction cannot be consummated without the approval of Proposals 1, 2, 3 and 4.

Recommendation of the Board of Directors of Vital Therapies

The board of directors has determined and believes that the issuance of shares of Vital Therapies common stock pursuant to the Exchange Agreement and the resulting change of control is fair to, and in the best interests of, Vital Therapies and its stockholders and has approved such items. The board of directors recommends that stockholders vote FOR Proposals 1 and 2 to approve the issuance of shares of Vital Therapies common stock pursuant to the Exchange Agreement and the change of control of Vital Therapies resulting from the Transaction.

The board of directors has determined and believes that the amendment to the amended and restated certificate of incorporation of Vital Therapies to change the name of Vital Therapies to Immunic, Inc. is advisable to, and in the best interests of, Vital Therapies and its stockholders and has approved such name change. The board of directors recommends that stockholders vote FOR Proposal 3 to approve the name change.

The board of directors has determined and believes that it is advisable to, and in the best interests of, Vital Therapies and its stockholders to approve the amendment to the amended and restated certificate

Table of Contents

of incorporation of Vital Therapies effecting the reverse stock split, as described in this proxy statement/prospectus. The board of directors recommends that stockholders vote FOR Proposal 4 to approve the reverse stock split.

The board of directors has determined and believes that adjourning the special meeting, if necessary, to solicit additional proxies if there are not sufficient votes in favor of Proposals 1, 2, 3 and 4 is fair to, and in the best interests of, Vital Therapies and its stockholders and has approved and adopted the proposal. The board of directors recommends that stockholders vote FOR Proposal 5 to adjourn the special meeting, if necessary, to solicit additional proxies if there are not sufficient votes in favor of Proposals 1, 2, 3 and 4.

Record Date and Voting Power

Only holders of record of Vital Therapies common stock at the close of business on the record date, February 15, 2019, are entitled to notice of, and to vote at, the special meeting. At the close of business on the record date, there were 42,369,694 shares of Vital Therapies common stock issued and outstanding. Each share of common stock entitles the holder thereof to one vote on each matter submitted for stockholder approval. See the section entitled *Principal Stockholders of Vital Therapies* in this proxy statement/prospectus for information regarding persons known to the management of Vital Therapies to be the beneficial owners of more than 5% of the outstanding shares of our common stock.

Voting and Revocation of Proxies

The proxy accompanying this proxy statement/prospectus is solicited on behalf of the board of directors for use at the special meeting.

If you are a stockholder of record, you may vote in one of the following ways:

You may vote in person. If you plan to attend the special meeting, you may vote by delivering your completed proxy card in person or by completing and submitting a ballot, which will be provided at the special meeting.

You may vote by mail. Complete, sign and date the proxy card that accompanies this proxy statement and return it promptly in the postage-prepaid envelope provided (if you received printed proxy materials). Your completed, signed and dated proxy card must be received prior to the special meeting.

You may vote by telephone. To vote over the telephone, dial toll-free 1-800-579-1639 using a touch-tone telephone and follow the recorded instructions (have your Notice of Internet Availability or proxy card in hand when you call). You will be asked to provide the company number and control number from your Notice of Internet Availability or proxy card. Telephone voting is available 24 hours a day, 7 days a week, until 11:59 p.m., Eastern Time, on April 3, 2019.

You may vote via the Internet. To vote via the Internet, go to www.proxyvote.com to complete an electronic proxy card (have your Notice of Internet Availability or proxy card in hand when you visit the website). You will be asked to provide the control number from your Notice of Internet Availability or proxy card. Internet voting is available 24 hours a day, 7 days a week, until 11:59 p.m., Eastern Time, on April 3, 2019.

If you are a beneficial owner of shares held of record by a broker, bank or other nominee, you will receive voting instructions from your broker, bank or other nominee. You must follow the voting instructions provided by your broker, bank or other nominee in order to instruct your broker, bank or other nominee on how to vote your shares. Beneficial owners of shares should generally be able to vote by returning the voting instruction card, or by telephone or via the Internet. However, the availability of telephone or Internet voting will depend on the voting process of your broker, bank, or other nominee. **If you are a beneficial owner, you may *not* vote your shares in person at the special meeting unless you obtain a legal proxy from your broker, bank or other nominee.**

Table of Contents

If you are a beneficial owner of shares held of record by a broker, bank or other nominee, you will receive voting instructions from your broker, bank or other nominee. You must follow the voting instructions provided by your broker, bank or other nominee in order to instruct your broker, bank or other nominee on how to vote your shares. Beneficial owners of shares should generally be able to vote by returning the voting instruction card, or by telephone or via the Internet. However, the availability of telephone or Internet voting will depend on the voting process of your broker, bank, or other nominee. **As discussed above, if you are a beneficial owner, you may *not* vote your shares in person at the special meeting unless you obtain a legal proxy from your broker, bank or other nominee.**

If you are a stockholder of record, you can change your vote or revoke your proxy at any time before the special meeting by:

- entering a new vote by Internet or telephone (until the applicable deadline for each method as set forth above);
- returning a later-dated proxy card (which automatically revokes the earlier proxy);
- providing a written notice of revocation to our corporate secretary at Vital Therapies, Inc., 15222-B Avenue of Science, San Diego, California 92128, Attn: Corporate Secretary; or
- attending the special meeting and voting in person. Attendance at the special meeting will not cause your previously granted proxy to be revoked unless you specifically so request.

If you are the beneficial owner of your shares, you must contact the broker, bank or other nominee holding your shares and follow their instructions to change your vote or revoke your proxy.

All properly executed proxies that are not revoked will be voted at the special meeting and at any adjournments or postponements of the special meeting in accordance with the instructions contained in the proxy. If a stockholder executes and returns a proxy and does not specify otherwise, the shares represented by that proxy will be voted FOR Proposal 1 to approve the issuance of shares of Vital Therapies common stock in the Transaction, FOR Proposal 2 to approve the change of control resulting from the Transaction, FOR Proposal 3 to approve an amendment to the amended and restated certificate of incorporation of Vital Therapies changing the company s name to Immunic, Inc., FOR Proposal 4 to approve an amendment to the amended and restated certificate of incorporation of Vital Therapies effecting the reverse stock split and FOR Proposal 5 to adjourn the special meeting, if necessary, to solicit additional proxies if there are not sufficient votes in favor of Proposals 1, 2, 3 and 4 in accordance with the recommendation of the board of directors.

Required Vote

The presence, in person or represented by proxy, at the special meeting of the holders of a majority of the shares of Vital Therapies common stock outstanding and entitled to vote at the special meeting is necessary to constitute a quorum at the meeting. Abstentions and broker non-votes will be counted towards a quorum. The affirmative vote of the holders of a majority of the shares of Vital Therapies common stock present in person or represented by proxy at the special meeting, assuming a quorum is present, is required for approval of each of Proposals 1, 2, and 5. The affirmative vote of the holders of a majority of the outstanding shares of common stock entitled to vote on the record

date for the special meeting is required for approval of Proposals 3 and 4. Each of Proposals 1, 2, 3 and 4 are conditioned upon each other and the approval of each such proposal is a condition to the completion of the Transaction. Therefore, the Transaction cannot be consummated without the approval of Proposals 1, 2, 3 and 4.

Votes will be counted by the inspector of election appointed for the meeting, who will separately count FOR and AGAINST votes, abstentions and broker non-votes. Abstentions will be counted towards the vote total for each proposal and will have the same effect as AGAINST votes on Proposals 3 and 4, but will have no effect on Proposals 1, 2 and 5. Similarly, broker non-votes will have the same effect as AGAINST votes on Proposals 3 and 4, but will have no effect on Proposals 1, 2 and 5.

Table of Contents

As of January 15, 2019, the directors and executive officers of Vital Therapies owned or controlled less than 1% of the outstanding shares of common stock entitled to vote at the special meeting.

Solicitation of Proxies

In addition to solicitation by mail, the directors, officers, employees and agents of Vital Therapies may solicit proxies from stockholders by personal interview, telephone, telegram or otherwise. Vital Therapies and Immunic will share equally the costs of printing and filing this proxy statement/prospectus and proxy card. Arrangements will also be made with brokerage firms and other custodians, nominees and fiduciaries who are record holders of Vital Therapies common stock for the forwarding of solicitation materials to the beneficial owners of Vital Therapies common stock. Vital Therapies will reimburse these brokers, custodians, nominees and fiduciaries for the reasonable out-of-pocket expenses they incur in connection with the forwarding of solicitation materials. Vital Therapies has retained Advantage Proxy, Inc. to assist it in soliciting proxies using the means referred to above. Vital Therapies will pay the fees of Advantage Proxy, Inc., which Vital Therapies expects to be approximately $10,000, plus reimbursement of out-of-pocket expenses.

Other Matters

As of the date of this proxy statement/prospectus, the board of directors does not know of any business to be presented at the special meeting other than as set forth in the notice accompanying this proxy statement/prospectus. If any other matters should properly come before the special meeting, it is intended that the shares represented by proxies will be voted with respect to such matters in accordance with the judgment of the persons voting the proxies.

Table of Contents

THE TRANSACTION

This section and the section entitled The Exchange Agreement in this proxy statement/prospectus describe the material aspects of the Transaction, including the Exchange Agreement. While Vital Therapies and Immunic believe that this description covers the material terms of the Transaction and the Exchange Agreement, it may not contain all of the information that is important to you. You should read carefully this entire proxy statement/prospectus for a more complete understanding of the Transaction and the Exchange Agreement, including the Exchange Agreement, and the other documents to which you are referred herein. See the section entitled Where You Can Find More Information in this proxy statement/prospectus beginning on page 265.

Background of the Transaction

Historical Background of Vital Therapies

Vital Therapies is a biotherapeutic company that has historically focused on the development of a cell-based therapy targeting the treatment of acute forms of liver failure. Vital Therapies product candidate, the ELAD System, or ELAD, is a human-cell-based, bio-artificial liver, which was being developed to improve rates of survival among patients with acute forms of liver failure. The most recent study of the ELAD System in subjects with severe alcoholic hepatitis (sAH), enrolled 151 subjects and was designed based on the findings from prior studies, and incorporated limits on subjects age, model for end-stage liver disease score, or MELD score and its three components, in order to replicate positive trends observed in a subset with similar characteristics in a prior clinical study primarily in sAH, VTI-208.

On September 12, 2018, Vital Therapies announced that, while there was a numerical improvement in survival in the ELAD-treated group between three months and one year following randomization, the VTL-308 study failed to meet the primary endpoint of a significant improvement in overall survival through at least 91 days assessed using the Kaplan Meier statistical method. The secondary endpoint of the proportion of survivors at study day 91 also showed no statistically significant difference between the groups. A secondary endpoint of change in bilirubin between baseline and day seven was significantly in favor of the ELAD group; however, as the objective of defining this endpoint was to validate its suitability as a surrogate for improved survival, and the survival endpoints were not achieved, management and advisors of Vital Therapies could not recommend pursuing a filing based on these observations.

In light of these results, Vital Therapies also announced that it did not believe the ELAD System could be approved in the United States or European Union, if ever, without additional clinical trials that would require substantial capital and time to complete. Consequently, on September 12, 2018, Vital Therapies also announced that it would cease any further development of the ELAD System and explore strategic options.

In an effort to preserve cash while it assessed strategic options, Vital Therapies underwent a reduction in force of approximately 80% of its workforce that was completed by the end of September 2018. In furtherance of the goal to conserve cash, on October 10, 2018, Jean-Jacques Bienaimé, Douglas E. Godshall, Errol R. Halperin, J. Michael Millis, M.D. and Muneer A. Satter tendered their resignations from the board of directors, reducing the board of directors in size from nine to four members. The remaining members of the board of directors were Faheem Hasnain, Chairman, Cheryl L. Cohen, Lowell E. Sears, and Russell J. Cox, the last of whom was replaced by Dr. Duane D. Nash on January 25, 2019.

Beginning in October 2018 and continuing through December 2018, the board of directors of Vital Therapies, its management team and its advisors conducted a process of identifying and evaluating potential strategic transactions

with private and public biotechnology companies. Further, management considered acquiring potential product candidates.

During its initial assessment of strategic options, the company fielded outreach from a number of private companies in the health care space seeking a potential merger, and made the assessment that a reverse merger or

other strategic transaction would likely result in a more favorable outcome for its stockholders than a liquidation of the company or acquiring products and funding their development. During this time, the company also held discussions with investment banks seeking to provide advisory services. Vital Therapies pro-actively sought out additional strategic advisors and discussions ensued with a number of investment banks. On September 18, 2018, Ladenburg Thalmann & Co. Inc., or Ladenburg Thalmann, presented its qualifications to act as a financial advisor to the board of directors of Vital Therapies by way of a telephone conference.

Vital Therapies continued an active dialogue with Ladenburg, as well as several other investment banks, and, on October 10, 2018, after completing a series of reference checks, entered into an investment banking agreement with Ladenburg Thalmann, pursuant to which Ladenburg Thalmann agreed to act as exclusive financial advisor to Vital Therapies to assist in the review of the company s business and assets and explore strategic opportunities for enhancing stockholder value, including a potential business combination with an unaffiliated third party. During this time, Vital Therapies also continued to explore potential strategic alliances or other ways to monetize its ELAD-related assets, with interest being expressed by three parties.

The initial screening process for potential business combination candidates involved Ladenburg Thalmann making outreach to a portfolio of 227 companies that had the potential to meet certain criteria. These companies consisted of private companies considering an initial public offering, or IPO, private companies not in the IPO queue, private companies that had failed in earlier attempts at an IPO, publicly-traded companies on exchanges outside the U.S. seeking a Nasdaq listing, and public companies in the U.S. that were believed to have a strategic fit with Vital Therapies or were seeking a business combination transaction as a de facto financing event. In addition, Ladenburg Thalmann, with the help of Vital Therapies management, also reached out to a broad set of investors and service providers which included venture capital firms, law firms, auditors and investor relations firms to garner additional interest in a transaction with Vital Therapies.

Furthermore, there was interest from companies known to the management and board of directors of Vital Therapies, and unsolicited enquiries received by the various parties. For instance, Vital Therapies first became aware of Party B on September 18 and Party C on September 17, when management from those companies reached out to management of Vital Therapies. Likewise, Vital Therapies first became acquainted with Immunic on October 5, 2018, when an investor in that company reached out to Vital Therapies management. Similarly, a director of Party A introduced that company to Vital Therapies management on October 30, 2018.

In their review of potential strategic partners, Ladenburg Thalmann and Vital Therapies focused on biotechnology companies possessing (i) a perceived lower financing risk at closing, (ii) a strong product pipeline with multiple mid-to-late or commercial-stage assets, (iii) strong news flows, (iv) an experienced management team, (v) high-quality existing investors or new investors willing to support a potential transaction, (vi) a capital structure with no debt or a clear path to restructuring existing debt, and (vii) audited financial statements or the ability to produce audited financial statements for the last two fiscal years. Prospective strategic partners were removed from consideration if their valuation was considered to be too high, they possessed a single asset in a high-risk space or their management team was not viewed as optimal to operate as a publicly traded company following a potential transaction.

From October 11 through October 31, 2018, Ladenburg Thalmann sent 56 formal process letters to various counterparties. Forty-seven confidentiality agreements were executed during the outreach process.

Following review of the candidates by Ladenburg Thalmann and Vital Therapies, 22 companies submitted formal proposals by the end of October 2018 detailing potential financial and structural terms of a transaction. Vital Therapies management and Ladenburg Thalmann carried out a detailed analysis of potential strategic partners

involved. In evaluating these 22 formal proposals from potential counterparties (see in this regard the discussions below with respect to Vital Therapies engagement with Parties A, B, C, D and Immunic), Vital Therapies ultimately concluded that (x) one or more desired elements were missing from a potential strategic partner (for example, that the counterparty did not have sufficient resources to achieve potentially meaningful development

Table of Contents

milestones within its portfolio of product development candidates or an ability to enter into an agreement in the near-term for a combination with a public company), (y) the terms expected to be available to Vital Therapies and its stockholders in a potential combination, including as represented by the potential share of the post-transaction company that might be owned by the pre-transaction Vital Therapies stockholders immediately following a combination and any concurrent financing, would likely not be fair or appropriate to the pre-transaction Vital Therapies stockholders, and/or (z) Vital Therapies should pursue a transaction with Immunic to the exclusion of other potential strategic partners. In the course of its process, Immunic was the only party with which Vital Therapies ultimately reached a mutual understanding on deal terms, including the potential share of the company that would be owned by the legacy Vital Therapies stockholders immediately following a proposed transaction and any concurrent financing, and moved forward with negotiating a definitive agreement. A more detailed chronological description of the Transaction process follows below under the section entitled *The Transaction Background of the Transaction History of Vital Therapies Strategic Alternatives and Significant Corporate Events*.

History of Vital Therapies Strategic Alternatives and Significant Corporate Events

Based on the detailed analysis of the 22 potential strategic partners, 17 companies had one or more of the desired elements missing (for example, that the potential strategic partner did not have sufficient resources to achieve potentially meaningful development milestones within its portfolio of product development candidates or an ability to enter into an agreement in the near-term for a transaction with a public company).

On October 5, 2018, a Confidentiality Agreement was entered into between Vital Therapies and Party B.

On October 12, 2018, a Confidentiality Agreement was entered into between Vital Therapies and Party C.

On October 15, 2018, a Confidentiality Agreement was entered into between Vital Therapies and Immunic.

On October 31, 2018, a Confidentiality Agreement was entered into between Vital Therapies and Party A.

On November 6, 2018, a Confidentiality Agreement was entered into between Vital Therapies and Party D.

On November 6, 2018, Ladenburg Thalmann reviewed with management of Vital Therapies the proposals received to date, the application of the proposed selection criteria to each of the potential strategic partners and the proposed financial terms offered by each of the parties.

Between November 6 and November 14, data rooms were established for due diligence purposes and Vital Therapies continued to actively diligence each of the remaining potential strategic partners. Vital Therapies held face-to-face meetings or telephone conferences with executive members of several of the candidate partners. For instance, management of Vital Therapies met with Party C in person on November 9, spoke with management from Immunic on November 12 via teleconference, and met in person with management from Party B that same day. During that period management of Vital Therapies also had numerous calls with representatives of Ladenburg Thalmann regarding the candidate companies under review. With assistance from Ladenburg Thalmann, the Vital Therapies management team selected five companies which management felt best fit the pre-established selection criteria.

The selected five potential strategic partners (Immunic and Parties A, B, C and D) were invited to present to the board of directors and management of Vital Therapies at a meeting in San Diego on November 14, 2018. Representatives of Ladenburg Thalmann participated in the meeting in person. Based on these presentations and other considerations arising from a review of the potential for a successful strategic transaction, on November 14, 2018, the board of directors of Vital Therapies concluded that, of the five companies that presented, it would enter into a further phase of

diligence and discussion regarding the potential for entering into a strategic transaction with three companies, Immunic and Parties A and B, with Immunic and Party A identified as the two most desired candidates.

Table of Contents

Between November 14 and 16, 2018, Ladenburg Thalmann, Vital Therapies and its counsel drafted a form term sheet for use in the proposed reverse merger. On November 16, 2018, Ladenburg Thalmann contacted the three selected candidates to inform them of their selection and outlined for each company a list of key topics that would be the focus of near-term diligence efforts. Ladenburg Thalmann also sent draft non-binding term sheets proposing a reverse merger to representatives of Immunic and Parties A and B.

Vital Therapies continued diligence discussions and term sheet negotiations with these three potential strategic partners from November 19, 2018 continuing through December 7, 2018. Negotiations for the most part focused on valuations, investor support and management teams in the case of the strategic partners and cash balances and liabilities in the case of Vital Therapies.

On November 19, 2018, Vital Therapies engaged Pillsbury to serve as counsel to Vital Therapies with respect to a potential transaction. On November 20, 2018, Vital Therapies, Ladenburg Thalmann and Pillsbury held a telephone conference to discuss the three selected parties and matters related to the term sheets.

On November 20, 2018, Ladenburg Thalmann sent revised draft term sheets to representatives of Immunic and Party B.

On November 21, 2018, representatives of Immunic sent a revised draft term sheet to Ladenburg Thalmann. The draft term sheet contemplated a share exchange as opposed to a reverse merger, a smaller concurrent investment, a termination fee payable by Vital Therapies to Immunic in certain circumstances, with no termination fee payable by Immunic, and a binding exclusivity provision.

On November 27, 2018, representatives of Party A sent a revised draft term sheet to Ladenburg Thalmann.

On November 27, 2018, Party B sent a revised draft term sheet to Ladenburg Thalmann.

On November 27, 2018, representatives of Pillsbury, Dentons and Vital Therapies held a telephone conference to discuss potential structures for a proposed transaction between Vital Therapies and Immunic, and matters related to German law, including the concept of a share exchange with the shareholders of Immunic as opposed to a reverse merger.

On November 28, 2018, representatives of Vital Therapies, Ladenburg Thalmann and Pillsbury held a telephone conference to discuss the revised draft term sheets received from Immunic and Party B. With respect to the term sheet received from Immunic, the parties discussed the valuations of the companies, the relative ownership of the legacy stockholders of each company following the closing of a proposed transaction, the size, timing and certainty of a concurrent investment in Immunic, timing and other matters related to financial statements required to be included in a proxy statement/prospectus, and shareholder approval and other matters under German law. With respect to the term sheet from Party B, the parties discussed the valuations of the companies, the relative ownership percentages of the company following a concurrent financing by Party B, the size of the concurrent financing and the ability of Vital Therapies to compel completion of the concurrent financing.

Later on November 28, Ladenburg Thalmann and a representative of Party A discussed Party A s revised draft term sheet. On that day, Ladenburg Thalmann also sent a revised draft term sheet to representatives of Immunic.

On November 29, 2018, representatives of Vital Therapies, Ladenburg Thalmann and Pillsbury held a telephone conference to discuss the revised draft term sheet received from Party A, including issues related to the size and timing of the concurrent investment in Party A, the valuations ascribed to each of the parties and the relative

ownership of the company following the closing of a proposed transaction, as well as a termination fee payable to Vital Therapies in the event Party A was not able to close the concurrent financing with a specified pre-money valuation.

On November 29, 2018, representatives of Immunic sent a revised draft term sheet to Ladenburg Thalmann.

On November 30, 2018, Ladenburg Thalmann sent a revised draft term sheet to representatives of Party B. Ladenburg Thalmann conducted a call with a potential anchor investor in Party B s proposed concurrent financing.

On November 30, 2018, representatives of Vital Therapies, Ladenburg Thalmann and Pillsbury held a telephone conference to discuss the status of negotiations and the draft term sheets. On November 30, 2018, Ladenburg Thalmann sent a revised draft term sheet to representatives of Party A. During the course of the negotiations, Party A expressed resistance to the inclusion of a termination fee and, as a result, Vital Therapies was concerned that Party A would not be able to successfully effect a concurrent financing, which the board of directors and management team of Vital Therapies believed was essential for a potential reverse merger with Party A given the parties cash resources as of the date of such negotiations, and the strong belief that a well-capitalized company post-closing was a requirement to retain listing of the Vital Therapies common stock on The Nasdaq Stock Market following the closing of a potential transaction and to provide the basis for a successful outcome for its stockholders following the closing of a transaction.

The board of directors of Vital Therapies met on November 30, 2018, and after reviewing the status of negotiations with the several possible partners, the board decided to give Party A a few additional days to see if it could get more clarity on its financing plans.

On December 5, 2018, representatives of Vital Therapies and Party A discussed the concurrent investment and modifications to the relative ownership percentage of the company following the closing of a transaction based on the size and timing of the concurrent investment in Party A. On December 6, 2018, Ladenburg Thalmann sent a revised draft term sheet to Party A.

On December 7, 2018, the board of directors of Vital Therapies met again to review the status of discussions with the remaining companies. The board considered the criteria initially established for selecting a strategic partner and reviewed potential concerns and recommendations from management of Vital Therapies and from Ladenburg Thalmann on the strengths of each of Party A, Party B and Immunic. Immunic was selected as the proposed strategic partner and management, Pillsbury and Ladenburg Thalmann were directed to finalize the term sheet and an exclusivity agreement and to move forward with negotiations on a definitive transaction agreement. A revised draft term sheet was sent by Ladenburg Thalmann to representatives of Immunic.

This same day, Party A informed Vital Therapies and Ladenburg Thalmann that it was removing itself from consideration for a potential strategic transaction with Vital Therapies. Party A did not articulate reasons for its decision.

On December 9, 2018, representatives of Immunic sent a revised draft term sheet and a draft exclusivity agreement to Ladenburg Thalmann.

On December 10, 2018, Ladenburg Thalmann sent a revised draft term sheet to representatives of Immunic, and management from Vital Therapies spoke with management from Immunic about these terms.

On December 11, 2018, representatives of Immunic corresponded with Ladenburg Thalmann regarding the minimum cash Vital Therapies would have at the closing. Furthermore, management from Vital Therapies had a further discussion with management from Immunic about the terms of a definitive agreement.

Due to the nature of the Transaction, in lieu of a reverse merger between the parties, Immunic proposed a structure whereby each shareholder of Immunic would exchange their shares of capital stock of Immunic for shares of capital stock of Vital Therapies based on relative valuations, following which, Immunic would be a wholly-owned subsidiary

of Vital Therapies. As a result, each of the shareholders of Immunic is a party to the Exchange Agreement. The shareholders of Immunic, including those shareholders participating in the concurrent financing, are referred to as the Holders.

Table of Contents

As reflected in the term sheet, the investors in the concurrent financing for Immunic were all expected to be existing shareholders or executive officers of Immunic. As a result, the parties worked to negotiate an acceptable pre-money valuation to apply to Immunic given that the pre-money valuation set in connection with the concurrent financing was an important component of the determination of the proportion of the post-transaction company that would be owned by the legacy stockholders of Vital Therapies, and the valuation was not based on a value determined by negotiations with an independent third-party investor, because as Holders they would benefit from a higher pre-money valuation in the concurrent financing and such Holders would be responsible for negotiating this pre-money valuation.

The summary of proposed terms provided that the Immunic shareholders before the closing of the Transaction, including those shareholders following their investment in Immunic s planned concurrent financing would collectively receive 88.9% of the issued and outstanding common stock of the company following the closing of a transaction and Vital Therapies stockholders (fully-diluted for those in-the-money securities) before the closing of a transaction would collectively own approximately 11.1% of the issued and outstanding common stock of the company following the closing of a transaction. The summary of proposed terms assumed a concurrent financing with proceeds to Immunic of $30 million. The Exchange Ratio set forth in the term sheet was based upon a calculation of the valuations of Vital Therapies and Immunic at the time of the closing of the Transaction. Vital Therapies was assigned a valuation of $14.3 million, assuming its net cash was greater than $4,200,000 and less than $5,200,000; otherwise, such valuation would be equal to $9,600,000 plus the net cash of Vital Therapies provided such net cash was greater than $1,500,000 (with downward adjustments of this minimum net cash requirement if the closing of a transaction did not occur by March 31, 2019). In the event the net cash of Vital Therapies was less than $1,500,000, the valuation of Vital Therapies was to be equal to $7,000,000 plus its net cash at the time of closing of a transaction. Immunic was assigned a valuation of $85,000,000 (which was Immunic s expected pre-money valuation for its concurrent financing), prior to giving effect to the concurrent financing, with a downward adjustment in the event Immunic s valuation for its concurrent financing was less than $85,000,000 or the bonuses to be paid to employees or consultants of Immunic in connection with a closing of a transaction were greater than $300,000. The term sheet also allowed Vital Therapies to issue up to approximately $2,100,000 in stock compensation in lieu of cash payments otherwise owed to the management team of Vital Therapies under existing severance agreements.

On December 11, 2018, Vital Therapies and Immunic signed an exclusivity agreement whereby the parties agreed, for a period of 30 days following the date of the agreement, to continue to negotiate the terms of a proposed share for share exchanges between the parties, culminating in the execution of a definitive agreement.

Additional diligence and discussions continued between Vital Therapies and Immunic and their respective representatives throughout December 2018.

On December 12, 2018, representatives from Vital Therapies, Immunic, Pillsbury, Dentons, Ladenburg Thalmann and BMO Capital Markets held a telephone conference with respect to a proposed strategic transaction between Vital Therapies and Immunic to discuss the timeline for the transaction from signing of a definitive agreement and related documentation, through the filing of a proxy statement/prospectus and various benefits and challenges in connection with the proposed timeline.

An additional telephone conference was held on December 13, 2018 with representatives of Vital Therapies, Immunic, Pillsbury, Dentons, Ladenburg Thalmann and BMO Capital Markets to discuss the division of responsibilities for the preparation and execution of a definitive agreement and the related timeline.

On December 17, 2018, Pillsbury sent to Dentons a draft of the Exchange Agreement between Vital Therapies, Immunic and the Holders for a strategic transaction between Vital Therapies and Immunic and the exchange of capital stock between Vital Therapies and the Holders in connection therewith.

122

Table of Contents

On December 18, 2018, Dentons and Pillsbury held a telephone conference to discuss initial comments and provisions of the Exchange Agreement.

On December 20, 2018, Dentons, on behalf of Immunic and the Holders, sent to Pillsbury a revised draft of the Exchange Agreement. The revised draft of the Exchange Agreement included a request for support agreements for the Transaction from the directors and management team of Vital Therapies, reference to the issuance of certain shares of Immunic capital stock to the management of Immunic as a bonus in connection with the Transaction, revisions regarding the operation of the respective businesses of Immunic and Vital Therapies following the execution of the Exchange Agreement and prior to closing of the Transaction, the possible sale of assets by Vital Therapies with respect to the ELAD System, and revisions regarding the two-way termination fee payable by the parties in certain circumstances and reimbursable expenses in connection therewith.

On December 21, 2018, Dentons sent to Pillsbury a draft of the subscription agreement proposed to be entered into among Immunic and the Holders for purposes of the concurrent financing of Immunic.

On December 26, 2018, a telephone conference was held among representatives from Vital Therapies, Immunic, Pillsbury, Dentons, Ladenburg Thalmann and BMO Capital Markets to discuss diligence matters and high-level discussion points with respect to the Exchange Agreement and the subscription agreement, including a discussion of the pathway to Immunic shareholder approval under German law, the binding nature of the commitments of the German investment funds under the subscription agreement, the possible need of Immunic to issue shares to its strategic partners and the treatment of the possible sale of assets by Vital Therapies with respect to the ELAD System under the Exchange Agreement.

On December 27, 2018, Pillsbury sent to Dentons a revised draft of the Exchange Agreement and the subscription agreement.

On December 30, 2018, Dentons sent to Pillsbury a revised draft of the Exchange Agreement and on December 31, 2018, Dentons sent to Pillsbury a revised draft of the subscription agreement.

On December 31, 2018 and January 1, 2019, Pillsbury and Dentons exchanged email communications regarding a list of open issues, including the treatment of the possible sale of assets by Vital Therapies. Additional open items included limitations on the operation of the parties during the period between the signing of a definitive agreement and the closing of a transaction, employee benefit matters for Vital Therapies personnel following the closing of the Transaction, the issuance of bonus shares of Immunic to its management team and the maximum amount of reimbursable expenses in the event of certain termination circumstances under the definitive agreement prior to closing of the Transaction. On January 1, 2019, Pillsbury and Dentons held a telephone conference to discuss the open issues.

On January 2, 2019, representatives from Vital Therapies, Immunic, Pillsbury, Dentons, Ladenburg Thalmann and BMO Capital Markets held a telephone conference to discuss the status of the execution of a definitive agreement and related documentation, including the subscription agreement and publicity for the announcement of the Transaction. Included in this discussion was the preparedness for the preparation of the proxy statement/prospectus. Representatives from Pillsbury and Dentons stated that the Exchange Agreement and related documentation was close to final form with certain items related to employee benefit matters needing to be resolved and the signing of such documentation could occur within the next several days. Representatives from Vital Therapies, Immunic, Pillsbury and Dentons agreed to reconvene over the weekend for a status update on these various matters.

Later that day, Pillsbury sent to Dentons a revised draft of the Exchange Agreement.

On January 3, 2019, Dentons sent to Pillsbury a revised draft of the Exchange Agreement and the subscription agreement with minor changes. Later that day, Pillsbury returned a revised draft of the Exchange Agreement to Dentons as the expected version to present to the board of directors of Vital Therapies.

Table of Contents

On January 3, 2019, management of Vital Therapies provided this draft of the Exchange Agreement and Dentons draft of the subscription agreement to the board of directors of Vital Therapies in advance of their telephonic meeting the following day.

On January 4, 2019, representatives of Vital Therapies, Immunic, Pillsbury and Dentons held a telephone conference to discuss one of the final open items related to the percentage of severance Vital Therapies would satisfy through the issuance of restricted stock units to the management team of Vital Therapies in lieu of cash severance in an effort to maximize the cash on Vital Therapies balance sheet.

Later, on January 4, 2019, the board of directors of Vital Therapies held a meeting by way of telephone conference that representatives of Pillsbury and Ladenburg Thalmann attended at the invitation of the board of directors. During the meeting, a member of the management team and a representative of Pillsbury reviewed the key terms of the proposed transaction between Vital Therapies and Immunic, including: structure and timing considerations; the formula for determining the Exchange Ratio for the conversion of Immunic capital stock into Vital Therapies common stock as well as the relative percentages of ownership of the existing Vital Therapies stockholders, on the one hand, and the Holders (including such Holders investment in Immunic s planned concurrent financing), on the other hand, following the completion of the proposed transaction; the planned concurrent financing of Immunic; the closing conditions in the draft Exchange Agreement as well as the subscription agreement for Immunic s planned concurrent financing with the Holders; and the termination provisions and termination fees set forth in the draft Exchange Agreement. Representatives of Ladenburg Thalmann then reviewed with the board of directors Ladenburg Thalmann s analysis of the Exchange Ratio for the conversion of Immunic capital stock into Vital Therapies common stock and rendered Ladenburg Thalmann s oral opinion to the board of directors (in its capacity as such), subsequently confirmed by delivery of a written opinion on that same day, that, as of January 4, 2019 and based upon and subject to the assumptions made, procedures followed, matters considered, and qualifications and limitations set forth in the opinion, the Exchange Ratio for the conversion of Immunic capital stock into Vital Therapies common stock was fair from a financial point of view to the stockholders of Vital Therapies. Representatives from Pillsbury reviewed with Vital Therapies board of directors the fiduciary duties of the board members in the context of the proposed Transaction. During the various discussions, members of the board of directors asked questions and discussed the terms and features of the proposed transaction, including provisions of the draft Exchange Agreement and related documentation, as well as Vital Therapies cash forecast and ability to satisfy its obligations prior to the projected closing date in light of the net cash expectations contained in the draft Exchange Agreement and its impact on the relative valuations. After further discussion among Vital Therapies board of directors, the board unanimously (i) determined that the Transaction and the other transactions contemplated by the Exchange Agreement were fair to and in the best interests of Vital Therapies and its stockholders, (ii) approved and adopted the Exchange Agreement and the transactions contemplated thereby, subject to finalization of the Exchange Agreement and ancillary documents by management of Vital Therapies in consultation with legal counsel, with such changes thereto as management deems to be in the best interests of Vital Therapies and its stockholders, and (iii) resolved to recommend that the stockholders of Vital Therapies vote to approve the Transaction, adopt the Exchange Agreement and approve and/or adopt the other transactions and arrangements as contemplated by the Exchange Agreement, including the issuance of shares of Vital Therapies common stock in the Transaction.

Between January 4, 2019 and January 5, 2019, members of Vital Therapies and Immunic s management teams continued to negotiate and finalize the Exchange Agreement and related transaction documents, together with representatives of Pillsbury and Dentons.

On January 5, 2019, representatives from Vital Therapies, Immunic, Pillsbury, Dentons, Ladenburg Thalmann and BMO Capital Markets held a telephone conference to discuss the execution of the Exchange Agreement and related documentation. Representatives stated that the necessary approvals for the Exchange Agreement and related

documentation were obtained and that Vital Therapies and Immunic were in a position to sign definitive documentation as of the completion thereof. On January 6, 2019, Vital Therapies, Immunic and the Holders entered into the Exchange Agreement and related transaction documents.

Table of Contents

Vital Therapies Reasons for the Transaction

The board of directors of Vital Therapies considered a number of factors in reaching its conclusion to approve and adopt the Exchange Agreement and the transactions contemplated thereby and to recommend that the stockholders of Vital Therapies approve the Transaction, adopt the Exchange Agreement and approve the other transactions contemplated by the Exchange Agreement, including the issuance of shares of Vital Therapies common stock in the Transaction, which the board of directors viewed as supporting its decision to approve the Transaction with Immunic, including:

The board of directors of Vital Therapies believes, based in part on the judgment, advice and analysis of Vital Therapies management with respect to the potential strategic, financial and operational benefits of the Transaction (which judgment, advice and analysis was informed in part on the business, technical, financial, accounting and legal due diligence investigation performed with respect to Immunic), that:

the company s goal following the closing of the Transaction will be the advancement of a pipeline of novel and potentially transformative treatments for chronic inflammatory and autoimmune diseases. The key elements of the company s strategy will include:

developing best-in-class therapies for the treatment of chronic inflammatory and autoimmune diseases;

accelerating development timelines and costs, while reducing risk;

providing differentiated products that create value;

seeking to protect its assets through intellectual property protections and regulatory and market exclusivities; and

commercializing its products in geographies that make strategic sense;

the company following the closing of the Transaction will be led by experienced senior management from Immunic and a board of directors of five members, including four members designated by Immunic and one member from Vital Therapies; and

Immunic has commitments for an aggregate of approximately $30 million to fund its development pipeline from the existing shareholders of Immunic. This investment, along with any existing Immunic cash, is expected to provide sufficient funding to advance Immunic s pipeline programs, including Immunic s development of IMU-838 through additional phase 2 trials and the

advancement of IMU-935 and IMU-856 through pre-clinical programs. Each of Immunic s programs has the potential, if successful, to create value for the stockholders of Vital Therapies and present the company following the closing of the Transaction with additional fundraising opportunities in the future.

The board of directors of Vital Therapies considered the financial analyses presented to it by Ladenburg Thalmann with respect to the Transaction and the opinion of Ladenburg Thalmann to the board of directors to the effect that and subject to the various assumptions and limitations set forth therein, as of January 4, 2019, the Exchange Ratio was fair, from a financial point of view, to the holders of Vital Therapies common stock.

The board of directors of Vital Therapies reviewed with the management of Vital Therapies the current plans of Immunic for developing its product candidates to assess the likelihood that the company, following the closing of the Transaction, would possess sufficient financial resources to allow the management team to focus initially on the continued development of its product candidates. The board of directors also considered the possibility that the company, following the closing of the Transaction, would be able to take advantage of the potential benefits resulting from the strategic transaction between Vital Therapies and Immunic to raise additional capital in the future.

Table of Contents

The board of directors of Vital Therapies considered the opportunity as a result of the Transaction for Vital Therapies stockholders to participate in the potential value that may result from development of Immunic s product candidate portfolio and the potential increase in value of the company following the closing of the Transaction.

The board of directors of Vital Therapies concluded that the Transaction would provide the existing stockholders of Vital Therapies with a significant opportunity to participate in the potential increase in value of the company following the closing of the Transaction.

The board of directors of Vital Therapies also reviewed various factors impacting the financial condition, results of operations and prospects for Vital Therapies, including:

- the consequences of the disappointing results from the Phase III clinical trial of Vital Therapies ELAD System, and the likelihood that the resulting circumstances for Vital Therapies would not change for the benefit of the stockholders of Vital Therapies in the foreseeable future on a stand-alone basis;

- the strategic alternatives of Vital Therapies to the Transaction, including potential transactions that could have resulted from discussions that management and representatives of Ladenburg Thalmann conducted with other potential strategic partners;

- the current market conditions, and Vital Therapies current liquidity position, its depressed stock price and continuing net operating losses;

- the risks associated with, and the uncertain value, timing and costs to stockholders of, liquidating Vital Therapies or effecting a sale of all or some of its assets and thereafter distributing the proceeds to its stockholders;

- the risks of continuing to operate Vital Therapies on a stand-alone basis, including the need to rebuild the company s product candidate development programs, infrastructure and management to continue its operations;

- Vital Therapies management s belief that it would be difficult to obtain additional equity or debt financing on acceptable terms, if at all; and

- the opportunity as a result of the Transaction for Vital Therapies stockholders to participate in the potential value that may result from advancing the Immunic pipeline of treatments for chronic inflammatory and autoimmune diseases and the potential increase in value of the company following the closing of the Transaction.

The board of directors of Vital Therapies also reviewed the terms and conditions of the draft Exchange Agreement and associated transactions, as well as the safeguards and protective provisions included therein intended to mitigate risks, including:

- the relative percentage of shares of Vital Therapies common stock to be issued to Immunic shareholders in the Transaction, and the expected relative percentage ownership of Vital Therapies stockholders and Immunic shareholders immediately following the completion of the Transaction;

- the planned concurrent financing in Immunic, the nature of conditions to the obligation of the Holders to invest additional funds in Immunic to consummate the concurrent financing, and the ability of Vital Therapies to specifically enforce the obligations of the Holders to complete the concurrent investment in Immunic if certain closing conditions under the Exchange Agreement have been satisfied;

- the limited number and nature of the conditions to the obligation of Vital Therapies to consummate the Transaction and the risk of non-satisfaction of such conditions as well as the likelihood that the Transaction would be consummated on a timely basis;

Table of Contents

- the respective rights of, and limitations on, Vital Therapies under the Exchange Agreement to consider certain unsolicited competing proposals under certain circumstances should Vital Therapies receive a superior proposal;

- the reasonableness of the potential termination fees and the reimbursement of certain transaction expenses, which could become payable by either Vital Therapies or Immunic if the Exchange Agreement is terminated in certain circumstances;

- the agreement by the Holders as parties to the Exchange Agreement to irrevocably adopt and approve the Exchange Agreement and the Transaction and the agreement by the Holders under the Subscription Agreement to take the necessary actions to affect the concurrent financing immediately following the approval by the Vital Therapies stockholders of the matters required to implement the Transaction; and

- the belief that the terms of the Exchange Agreement, including the parties representations, warranties and covenants, and the conditions to their respective obligations, are reasonable under the circumstances.

The board of directors of Vital Therapies also considered a number of uncertainties and risks in its deliberations concerning the Transaction and the other transactions contemplated by the Exchange Agreement, including the following:

- the risk that the Transaction might not be completed in a timely manner, or at all, and the potential adverse effect of the failure to successfully close the Transaction on the business and reputation of Vital Therapies;

- the expenses to be incurred in connection with the Transaction and the time, effort and challenges associated with running the company following the closing of the Transaction;

- the risk that Immunic is not able to successfully execute its business plan and commercialize its product candidates on the planned timeline or at all; and

- various other risks associated with Vital Therapies, Immunic, the Transaction and the company following the closing of the Transaction, including the risks described in the section entitled Risk Factors in this proxy statement/prospectus.

The foregoing information and factors considered by the board of directors of Vital Therapies are not intended to be exhaustive, but are believed to include all of the material factors considered by the board of directors. In view of the wide variety of factors considered in connection with its evaluation of the Transaction and the complexity of these matters, the board of directors of Vital Therapies did not find it useful, and did not attempt, to quantify, rank or otherwise assign relative weights to these factors. In considering the factors described above, individual members of the board of directors of Vital Therapies may have given different weight to different factors. The board of directors of Vital Therapies conducted an overall analysis of the factors described above, including thorough discussions with, and questioning of, management of Vital Therapies and its legal advisors and investment banking advisors, and considered

the factors overall to be favorable to, and to support, its determination.

Opinion of Financial Advisor to Vital Therapies

Pursuant to an engagement letter dated October 11, 2018, Vital Therapies retained Ladenburg Thalmann to act as a financial advisor in connection with the Transaction and to render an opinion to the Vital Therapies board of directors as to the fairness, from a financial point of view, of the Exchange Ratio to the stockholders of Vital Therapies (including the holders of any unexercised, in-the-money options). On January 4, 2019, Ladenburg Thalmann rendered its oral opinion, subsequently confirmed by delivery of a written opinion dated January 4, 2019, to the Vital Therapies board of directors, that, as of the date of such opinion, and based upon the various assumptions, qualifications and limitations set forth therein, that the Exchange Ratio was fair, from a financial point of view, to the stockholders of Vital Therapies.

Table of Contents

The full text of the written opinion of Ladenburg Thalmann, dated January 4, 2019, or the Opinion, is attached as Annex E to this proxy statement/prospectus is incorporated herein by reference. Vital Therapies encourages its stockholders to read the Opinion in its entirety for the assumptions made, procedures followed, other matters considered and limits of the review by Ladenburg Thalmann. The summary of the written opinion of Ladenburg Thalmann set forth herein is qualified by reference to the full text of the Opinion. Ladenburg Thalmann provided its opinion for the sole benefit and use of Vital Therapies board of directors in its consideration of the Transaction. Ladenburg Thalmann s opinion is not a recommendation to any stockholder as to how to vote with respect to the proposed Transaction or to take any other action in connection with the Transaction or otherwise.

In connection with the Opinion, Ladenburg Thalmann took into account an assessment of general economic, market and financial conditions as well as its experience in connection with similar transactions and securities valuations generally and, among other things:

Reviewed a draft dated January 4, 2019 of the Exchange Agreement, which was the most recent draft made available to it prior to the delivery of the Opinion;

Reviewed and analyzed certain publicly available financial and other information for each of Vital Therapies and Immunic, respectively, including equity research on comparable companies and on Vital Therapies, and certain other relevant financial and operating data furnished to Ladenburg Thalmann by the management of Vital Therapies, including information Vital Therapies obtained from Immunic;

Discussed with certain members of the management of Vital Therapies the historical and current business operations, financial condition and prospects of Vital Therapies and Immunic;

Reviewed and analyzed certain operating results of Immunic as compared to operating results and the reported price and trading histories of certain publicly traded companies that Ladenburg Thalmann deemed relevant;

Reviewed and analyzed certain internal financial analyses, projections as to cost and expenses, reports, preliminary internal market opportunity assumptions and other information concerning Immunic prepared by the management of Immunic as well as projections for Immunic prepared and adjusted by the management of Vital Therapies which was then provided to Ladenburg and utilized per instruction of Vital Therapies;

Reviewed and analyzed certain financial terms of the Exchange Agreement as compared to the publicly available financial terms of certain selected business combinations that Ladenburg Thalmann deemed relevant;

Reviewed and analyzed certain financial terms of completed initial public offerings for certain companies that Ladenburg Thalmann deemed relevant;

Reviewed certain pro forma financial effects of the Transaction;

Reviewed and analyzed such other information and other factors, and conducted such other financial studies, analyses and investigations as Ladenburg Thalmann deemed relevant for the purposes of the Opinion; and

Took into account Ladenburg Thalmann s experience in other transactions, as well as Ladenburg Thalmann s experience in securities valuations and Ladenburg Thalmann s general knowledge of the industries in which Immunic operates.

In conducting its review and arriving at the Opinion, Ladenburg Thalmann, with the consent of Vital Therapies, assumed and relied, without independent investigation, upon the accuracy and completeness of all financial and other information provided to Ladenburg Thalmann, by Vital Therapies and Immunic, respectively, or which was publicly available or was otherwise reviewed by Ladenburg. Ladenburg Thalmann has not undertaken any responsibility for the accuracy, completeness or reasonableness of, or independent verification of, such information.

Table of Contents

Ladenburg relied upon, without independent verifications, the assessment of Vital Therapies management and Immunic management as to the viability of, and risks associated with, the current and future products and services of Immunic (including without limitation, the development, testing and marketing of such products and services, the receipt of all necessary governmental and other regulatory approvals for the development, testing and marketing thereof, and the life and enforceability of all relevant patents and other intellectual and other property rights associated with such products and services).

In addition, Ladenburg Thalmann has not conducted, nor has Ladenburg Thalmann assumed any obligation to conduct, any physical inspection of the properties or facilities of the Vital Therapies or Immunic. Ladenburg Thalmann has assumed, with Vital Therapies consent, that the only material asset of the Vital Therapies is its net cash, that no other assets of Vital Therapies, including, without limitation, any net operating losses of Vital Therapies, have any material value and that Vital Therapies does not, and does not intend to, engage in any activity that may result in the generation of any revenue.

Ladenburg has, with Vital Therapies consent, relied upon the assumption that all information provided to Ladenburg Thalmann by Vital Therapies and Immunic is accurate and complete in all material respects. With respect to the financial forecasts supplied to Ladenburg Thalmann by Vital Therapies regarding Immunic, Ladenburg Thalmann has, with Vital Therapies consent, assumed that they were reasonably prepared on the basis reflecting the best currently available estimates and judgments of the management of Vital Therapies and Immunic, as applicable, as to the future operating and financial performance of Vital Therapies and Immunic, as applicable, and that they provided a reasonable basis upon which we could form the Opinion. Ladenburg Thalmann has been instructed by Vital Therapies, and has assumed, with Vital Therapies consent, that Vital Therapies Net Cash immediately prior to the Closing is expected to be $4.7 million and Immunic is assumed to have $6.0 million of cash and no debt immediately prior to the Closing. If the Net Cash is outside of the collar range of $4.2 million to $5.2 million, the valuation of Vital Therapies for purposes of determining the Exchange Ratio will be adjusted on a dollar-for-dollar basis. The Exchange Ratio will further be adjusted if Vital Therapies Net Cash is below the Minimum Cash Amount of $1.5 million. Ladenburg Thalmann has further been advised that Vital Therapies may sell certain of its Legacy Assets. As a result of the sale, any payment received will be directly additive to Vital Therapies Net Cash. Ladenburg Thalmann therefore assume that the only value attributed to the Company will be its Net Cash and the value of its Nasdaq listing.

Ladenburg Thalmann did not consider any potential legislative or regulatory changes currently being considered or recently enacted by the United States or any foreign regulatory body, or any changes in accounting methods or generally accepted accounting principles that may be adopted by the SEC, the Financial Accounting Standards Board, or any similar foreign regulatory body or board.

For purposes of rendering the Opinion, Ladenburg Thalmann assumed, in all respects material to its analysis, that the representations and warranties of each party contained in the Exchange Agreement are true and correct, that each party will perform all of the covenants and agreements required to be performed by it under the Exchange Agreement and that all conditions to the consummation of the Transaction will be satisfied without waiver thereof. Ladenburg Thalmann assumed that the final form of the Exchange Agreement will be substantially similar to the last draft reviewed by Ladenburg Thalmann. Ladenburg Thalmann also assumed that all governmental, regulatory and other consents and approvals contemplated by the Exchange Agreement will be obtained and that in the course of obtaining any of those consents no restrictions will be imposed or waivers made that would have an adverse effect on the contemplated benefits of the Transaction. Ladenburg Thalmann assumed that the Transaction will be consummated in a manner that complies with the applicable provisions of the Securities Act of 1933, the Securities Exchange Act of 1934, and all other applicable federal and state statutes, rules and regulations.

It is understood that Ladenburg Thalmann s Opinion was intended for the benefit and use of the board of directors of Vital Therapies in its consideration of the financial terms of the Transaction and may not be used for any other purpose or reproduced, disseminated, quoted or referred to at any time, in any manner or for any

Table of Contents

purpose without Ladenburg Thalmann s prior written consent. Ladenburg Thalmann s Opinion did not constitute a recommendation to the board of directors of Vital Therapies on whether or not to approve the Transaction or to any Vital Therapies stockholder or Immunic shareholder or any other person as to how to vote with respect to the Transaction or to take any other action in connection with the Transaction or otherwise. Ladenburg Thalmann s Opinion did not address Vital Therapies underlying business decision to proceed with the Transaction or the relative merits of the Transaction compared to other alternatives available to Vital Therapies. Ladenburg Thalmann expressed no opinion as to the prices or ranges of prices at which shares of securities of any person, including Vital Therapies, will trade at any time, including following the announcement or consummation of the Transaction. Ladenburg Thalmann was not requested to opine as to, and Ladenburg Thalmann s Opinion does not in any manner address, the amount or nature of compensation to any of the officers, directors or employees of any party to the Transaction, or any class of such persons, relative to the compensation to be paid to the security holders of Vital Therapies in connection with the Transaction or with respect to the fairness of any such compensation.

The following is a summary of the principal financial analyses performed by Ladenburg Thalmann to arrive at the Opinion. Some of the summaries of financial analyses include information presented in tabular format. In order to fully understand the financial analyses, the tables must be read together with the text of each summary. The tables alone do not constitute a complete description of the financial analyses. Considering the data set forth in the tables without considering the full narrative description of the financial analyses, including the methodologies and assumptions underlying the analyses, could create a misleading or incomplete view of the financial analyses. Ladenburg Thalmann performed certain procedures, including each of the financial analyses described below and reviewed with the management of Vital Therapies the assumptions on which such analyses were based and other factors, including the historical and projected financial results of Vital Therapies and Immunic.

Transaction Overview

Based upon and subject to adjustment as specified in the Exchange Agreement it is estimated that, Vital Therapies will issue approximately 382,333,184 shares of its common stock. The Exchange Ratio and the number of shares of Vital Therapies common stock to be issued will be adjusted to account for the reverse stock split described in this proxy statement/prospectus.

Assuming that the concurrent financing closes immediately prior the Closing of the Transaction as well as the other aforementioned assumptions, it is expected that Immunic shareholders immediately after the Transaction will own approximately 89% of the fully diluted Vital Therapies common stock and the stockholders of Vital Therapies immediately after the Transaction (excluding for this purpose certain out-of-the-money Vital Therapies equity awards) will own approximately 11% of the fully diluted Vital Therapies common stock, after the Transaction, in each case, subject to adjustment of the Exchange Ratio as set forth in the Exchange Agreement and described herein.

Implied Equity Value

Ladenburg Thalmann estimated an implied equity value for Immunic of approximately $85.0 million.

Implied Total Enterprise Value

Ladenburg Thalmann calculated an implied total enterprise value for Immunic of approximately $79.0 million by subtracting an assumed Immunic net cash balance of approximately $6.0 million from the implied equity value of approximately $85.0 million and was based on Immunic s projected cash and cash equivalents and liabilities at March 31, 2019, the assumed closing date of the Transaction for purposes of the Opinion.

Precedent Initial Public Offering Analysis

Ladenburg Thalmann reviewed the initial public offerings, or the IPOs, of seven biopharmaceutical companies which completed an IPO since May 2015 and whose lead product at the time of its IPO was in the phase 2 or

Table of Contents

phase 3 stage of clinical development and focused on the gastrointestinal, muscular sclerosis and/or the dermatology autoimmune space. The total enterprise value at IPO is defined as the pre-money equity value plus indebtedness, liquidation value of preferred stock and non-controlling interest, minus cash and cash equivalents at the time of its IPO. Although the companies referred to below were used for comparison purposes, none of these companies is directly comparable to Immunic. Accordingly, an analysis of the results of such a comparison is not purely mathematical, but instead involves complex considerations and judgments concerning differences in historical and projected financial and operating characteristics of the selected companies below. These companies, which are referred to as the Precedent IPO Analysis, were:

Allakos Inc.

Galapagos NV

InflaRx N.V.

Kadmon Holdings, Inc.

Menlo Therapeutics Inc.

Principia Biopharma Inc.

Sienna Biopharmaceuticals, Inc.

The Precedent IPO Analysis had total enterprise values between $180.2 million and $1,084.8 million. Ladenburg Thalmann derived a median total enterprise value of $201.0 million for the Precedent IPO Analysis. Using the 25th percentile and the 75th percentile of the implied total enterprise values, Ladenburg Thalmann then calculated a range of implied total equity values for Immunic (by adding an estimated $6.0 million in cash at closing), which was $198.0 million to $508.3 million. This compares to Immunic s total equity value as per the Exchange Agreement of $85.0 million.

First Trade Date	Company Name	Enterprise Value ($M)
9/13/18	Principia Biopharma Inc.	$ 194.1
7/18/18	Allakos Inc.	520.9
1/24/18	Menlo Therapeutics Inc.	180.2
11/7/17	InflaRx N.V.	201.0
7/26/17	Sienna Biopharmaceuticals, Inc.	189.9
7/26/16	Kadmon Holdings, Inc.	483.7

5/13/15	Galapagos NV	1,084.8

Analysis of Selected Publicly Traded Companies

Ladenburg Thalmann reviewed selected financial data of nine publicly traded companies in the biopharmaceutical industry which had a lead candidate in the phase 2 or phase 3 stage of clinical development and focused on the gastrointestinal, multiple sclerosis and/or the dermatology autoimmune disease space, or the Selected Publicly Traded Companies Analysis). Although the companies referred to below were used for comparison purposes, none of these companies is directly comparable to Immunic. Accordingly, an analysis of the results of such a comparison is not purely mathematical but instead involves complex considerations and judgments concerning differences in historical and projected financial and operating characteristics of the selected companies below. The total enterprise values are based on closing stock prices on January 3, 2019. The companies included in the Selected Publicly Traded Companies Analysis were:

Allakos Inc.

AnaptysBio, Inc.

Arena Pharmaceuticals, Inc.

Galapagos NV

Table of Contents

InflaRx N.V.

Innovate Biopharmaceuticals, Inc.

MediciNova, Inc.

Principia Biopharma Inc.

TG Therapeutics, Inc.

The nine companies in the Selected Publicly Traded Companies Analysis had implied total enterprise values between $59.4 million and $3,346.4 million. Ladenburg Thalmann derived a median implied total enterprise value of $650.6 million for the Selected Publicly Traded Companies Analysis. Using the 25th percentile and the 75th percentile of the implied total enterprise values, Ladenburg Thalmann then calculated a range of implied total equity values for Immunic (by adding an estimated $6.0 million in cash at closing), which was $282.8 million to $1,164.1 million. This compares to Immunic s total equity value as per the Exchange Agreement of $85.0 million.

Company Name	Enterprise Value ($M)
Galapagos NV	$ 3,346.4
Allakos Inc.	1,884.3
AnaptysBio, Inc.	1,158.1
InflaRx N.V.	732.9
Arena Pharmaceuticals, Inc.	650.6
Principia Biopharma Inc.	443.8
MediciNova, Inc.	276.8
TG Therapeutics, Inc.	225.8
Innovate Biopharmaceuticals, Inc.	59.4

Analysis of Selected Precedent M&A Comparable Transactions

Ladenburg Thalmann reviewed the financial terms, to the extent the information was publicly available, of the seven most recent qualifying merger transactions of companies in the biopharmaceutical industry, which had a lead candidate in the phase 2 or phase 3 stage of clinical development and focused on the gastrointestinal, multiple sclerosis and/or the dermatology autoimmune disease space, or the Selected Precedent M&A Comparable Transactions. Although the precedent transactions referred to below were used for comparison purposes, none of the target companies is directly comparable to Immunic. Accordingly, an analysis of the results of such a comparison is not purely mathematical, but instead involves complex considerations and judgments concerning differences in historical and projected financial and operating characteristics of the companies involved and other factors that could affect the Transaction value of such companies and Immunic to which they are being compared. Ladenburg Thalmann reviewed the total enterprise values of the target companies (including downstream milestone payments). These transactions, including the month and year each was closed, were as follows:

Closed Date	Target Company	Acquirer	Enterprise Value ($M)
November 2018	Syntimmune, Inc.	Alexion Pharmaceuticals, Inc.	$ 1,200.0
January 2017	Ziarco Group Ltd.	Novartis AG	438.9
December 2016	Creabilis plc	Sienna Biopharmaceuticals, Inc.	150.0
October 2016	Vitae Pharmaceuticals, Inc.	Allergan plc	528.2
June 2016	Anacor Pharmaceuticals, Inc.	Pfizer Inc.	4,497.8*
August 2015	Receptos, Inc.	Celgene Corporation	7,151.9*
February 2015	Meritage Pharma, Inc.	Shire plc	244.9

* *Excluded from calculations due to robust valuations*

Table of Contents

Anacor Pharmaceuticals, Inc. / Pfizer Inc. and Receptos Inc. / Celgene Corporation merger transactions are excluded from the calculation listed in this paragraph due to their respective robust valuations. The five remaining Selected Precedent M&A Comparable Transactions target companies had total enterprise values between $150.0 million and $1,200.0 million. Ladenburg Thalmann derived a median total enterprise value of $438.9 million for the Selected Precedent M&A Comparable Transactions. Using the 25th percentile and the 75th percentile of the implied total enterprise values, Ladenburg Thalmann then calculated a range of implied total equity values for Immunic (by adding an estimated $6.0 million in cash at closing), which was $250.9 million to $534.2 million. This compares to Immunic s total equity value as per the Exchange Agreement of $85.0 million.

Discounted Cash Flow Analysis

Ladenburg Thalmann estimated a range of total equity values for Immunic based upon the present value of Immunic s estimated after-tax unlevered free cash flows, which are set forth below in the section *Information Regarding Financial Projections Used for Fairness Opinion Analysis*. Ladenburg Thalmann reviewed and analyzed certain internal financial analyses, projections as to cost and expenses, reports, preliminary internal market opportunity assumptions and other information concerning Immunic prepared by the management of Immunic as well as projections for Immunic prepared by the management of Vital Therapies as adjusted and provided to Ladenburg Thalmann by management of Vital Therapies and utilized per instruction of Vital Therapies.

Immunic provided Vital Therapies with revenue and expense projections for the following programs: Ulcerative Colitis, or UC, Crohn s Disease, or Crohn s, and Multiple Sclerosis, MS. Vital Therapies further adjusted the unadjusted free cash flows in the years 2022 to 2037 downward by various probability percentages to account for the risk of each therapeutic category due the clinical stages of the development. The following risk adjusted probability percentages were utilized (1) 30.7% applied to UC, (2) 30.7% applied to Crohn s and (3) 40.5% applied to MS. Risk adjustment percentages were not applied to R&D and G&A expenses. Vital Therapies made additional adjustments to Immunic s forecast, including but not limited to, reducing the pricing of the drug in various therapeutic categories in both the United States and in the rest of the world. Vital Therapies further changed the UC launch by one year and delayed the MS and Crohn s revenue for the rest of the world by one year. Vital Therapies also added approximately $60 million in additional G&A costs through 2024.

Please see the section entitled *Information Regarding Financial Projections Used for Fairness Opinion Analysis* for additional information on the unadjusted revenue and expense assumptions. Vital Therapies assumed a 28% corporate tax rate when calculating unlevered free cash flow.

In performing this discounted cash flow analysis, Ladenburg Thalmann utilized discount rates ranging from 14% to 16%, which were selected based on the capital asset pricing model and the estimated weighted average cost of capital of the companies within the Selected Publicly Traded Companies Analysis, which was 15%. This discounted cash flow analysis assumed that Immunic will have no terminal value after 2037, does not take into account Immunic s available net operating losses, if any, and assigns no value to revenues beyond 2037.

The discounted cash flow analysis resulted in an implied total equity values between $139.5 million and $219.1 million, based on the upper and lower range of the discount rates that Ladenburg Thalmann used in its analysis. This compares to Immunic s total equity value as per the Exchange Agreement of $85.0 million.

Table of Contents

The prospective financial information of Vital Therapies and Immunic used in the discounted cash flow analysis included in this document has been prepared by, and is the responsibility of, Vital Therapies and Immunic s management. The independent auditors of Vital Therapies, PricewaterhouseCoopers LLP, and Immunic, Baker Tilly GmbH & Co. KG have not audited, reviewed, examined, compiled nor applied agreed-upon procedures with respect to the accompanying prospective financial information and, accordingly, the respective independent auditors do not express an opinion or any other form of assurance with respect thereto. The PricewaterhouseCoopers LLP report and the Baker Tilly GmbH & Co. KG report included in this document relate to Vital Therapies and Immunic s previously issued financial statements, respectively. They do not extend to the prospective financial information and should not be read to do so.

2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	
		$ 40.5	**$ 99.7**	**$ 152.2**	**$ 202.7**	**$ 248.2**	**$ 279.0**	**$ 291.2**	**$ 303.0**	**$ 315.3**	**$ 327.8**	**$**
			3.7	**44.3**	**101.0**	**153.2**	**202.5**	**245.9**	**274.8**	**285.7**	**296.1**	
			44.1	**116.6**	**200.9**	**240.1**	**253.1**	**266.5**	**2.80.8**	**295.5**	**310.9**	
		40.5	**147.5**	**313.1**	**504.6**	**641.5**	**734.5**	**803.6**	**858.7**	**896.5**	**934.8**	
		(0.8)	(3.0)	(6.3)	(10.1)	(12 8)	(14.7)	(16.1)	(172)	(17.9)	(18.7)	
		(1.8)	(6.5)	(13.8)	(22.2)	(28.2)	(323)	(35.4)	(378.)	(39.4)	(41.1)	
(0.4)	(7.4)	(31.0)	(68.8)	(121.2)	(185.4)	(234.2)	(268.1)	(2933)	(313.4)	(3272)	(3412)	
(11.4)	(13.7)	(16.5)	(31.6)	(62.4)	(94.8)	(113.5)	(1283)	(138.6)	(1463)	(152.4)	(158.8)	
(103.6)	(77.1)	(11.4)										
115.4)	**($ 98.1)**	**($ 21.0)**	**$ 37.7**	**$ 109.4**	**$ 192.1**	**$ 252.9**	**$ 291.1**	**$ 320.2**	**$ 344.0**	**$ 359.5**	**$ 374.9**	**$**
			($ 10.5)	**($ 30.6)**	**($ 53.8)**	**($ 70.8)**	**($ 81.5)**	**($ 89.7)**	**($ 96.3)**	**($ 100.7)**	**($ 105.0)**	**($**
115.4)	**($ 98.1)**	**($ 21.0)**	**$ 27.1**	**$ 78.8**	**$ 138.3**	**$ 182.1**	**$ 209.6**	**$ 230.6**	**$ 247.7**	**$ 258.8**	**$ 270.0**	**$**

The summary set forth above does not purport to be a complete description of all the analyses performed by Ladenburg Thalmann. The preparation of a fairness opinion involves various determinations as to the most appropriate and relevant methods of financial analysis and the application of these methods to the particular circumstances. Therefore, such an opinion is not readily susceptible to partial analysis or summary description. Ladenburg Thalmann did not attribute any particular weight to any analysis or factor considered by it, but rather made qualitative judgments as to the significance and relevance of each analysis and factor. Accordingly, notwithstanding the separate factors summarized above, Ladenburg Thalmann believes, and advised the Vital Therapies board of directors, that its analyses must be considered as a whole. Selecting portions of its analyses and the factors considered by it without considering all analyses and factors could create an incomplete view of the process underlying the Opinion. In performing its analyses, Ladenburg Thalmann made numerous assumptions with respect to industry performance, business and economic conditions and other matters, many of which are beyond the control of Vital Therapies and Immunic. These analyses performed by Ladenburg Thalmann are not necessarily indicative of actual

values or future results, which may be significantly more or less favorable than suggested by such analyses. In addition, analyses relating to the value of businesses do not purport to be appraisals or to reflect the prices at which businesses or securities may actually be sold. Accordingly, such analyses and estimates are inherently subject to uncertainty, being based upon numerous factors or events beyond the control of the parties or their respective advisors. None of Vital Therapies, Immunic, Ladenburg Thalmann or any other person assumes responsibility if future results are materially different from those projected. The analyses supplied by Ladenburg Thalmann and its Opinion were among several factors taken into consideration by the Vital Therapies board of directors in making its decision to enter into the Exchange Agreement and should not be considered as determinative of such decision.

Ladenburg Thalmann was selected by the Vital Therapies board of directors to render an opinion to the Vital Therapies board of directors because Ladenburg Thalmann is a nationally recognized investment banking firm and because, as part of its investment banking business, Ladenburg Thalmann is continually engaged in the valuation of businesses and their securities in connection with mergers, negotiated underwritings, secondary distributions of listed and unlisted securities, private placements and valuations for corporate and other purposes. In addition, in the ordinary course of its business, Ladenburg Thalmann and its affiliates may trade the equity securities of Vital Therapies for its own account and for the accounts of their customers, and, accordingly, may at any time hold a long or short position in such securities. In the three years preceding the date hereof, Ladenburg has had no equity research reports written on Vital Therapies. Ladenburg has not received any fees from Vital Therapies, aside from the fees described below. In the three years preceding the date hereof, Ladenburg has not had a relationship with Immunic and has not received any fees from Immunic. Ladenburg and its affiliates may in the future seek to

Table of Contents

provide investment banking or financial advisory services to Vital Therapies and Immunic and/or certain of their respective affiliates and would expect to receive fees for the rendering of such services.

The issuance of Ladenburg Thalmann s Opinion was reviewed and approved by a fairness opinion committee of Ladenburg Thalmann.

Pursuant to the engagement letter between Ladenburg Thalmann and Vital Therapies as of the time the Exchange Agreement was approved, if the Transaction is consummated, Ladenburg Thalmann will be entitled to receive a transaction fee of $1,000,000 payable in cash. Vital Therapies has also paid an initial fee of $75,000 as well as a fee to Ladenburg for the delivery of a Fairness Opinion of $250,000. Additionally, Vital Therapies has agreed to reimburse Ladenburg Thalmann for its out-of-pocket expenses and has agreed to indemnify Ladenburg Thalmann against certain liabilities, including liabilities under the federal securities laws. The terms of the fee arrangement with Ladenburg Thalmann, which are customary in transactions of this nature, were negotiated at arm s length between Vital Therapies and Ladenburg Thalmann, and the Vital Therapies board of directors was aware of the arrangement, including the fact that a portion of the fee payable to Ladenburg Thalmann is contingent upon the completion of the Transaction.

Information Regarding Financial Projections Used for Fairness Opinion Analysis

As part of the consideration of the Transaction and the Vital Therapies board of directors review of strategic alternatives, management of Vital Therapies reviewed certain market assumptions and preliminary internal forecasts provided by Immunic and prepared financial projections for Immunic s business (which, as adjusted, are referred to herein as the Projections). In preparing the Projections, Vital Therapies first reviewed preliminary internal financial information provided by Immunic, which contained preliminary revenue and expense estimates through calendar year-end 2037 and for three programs: Ulcerative Colitis, or UC, Crohn s Disease, or Crohn s, and Multiple Sclerosis, MS. Vital Therapies made adjustments to Immunic s forecast primarily related to reducing projected revenue and increasing projected expenses, including reducing the anticipated pricing of the drug in each of the therapeutic categories. Vital Therapies also delayed the commercial launch in UC and associated revenue by one quarter in the United States and one year in Europe and delayed the MS and Crohn s revenue in those geographies by the same respective amounts. Vital Therapies also added approximately $60 million in general and administrative costs through 2024. Vital Therapies further risk adjusted the free cash flows in the years 2022 to 2037 by employing various probability percentages to account for the risk of each therapeutic category due to the clinical stage, with 30.7% risk adjustments applied to UC and Crohn s and a 40.5% risk adjustment applied to MS. Risk adjustment percentages were not applied to research and development or general and administrative expenses. Vital Therapies assumed a 28% corporate tax rate. The Projections were converted from Euros to U.S. dollars using a spot rate of 1.14 to 1.

The Projections are set forth above in the section entitled *The Transaction Opinion of Financial Advisor to Vital Therapies Discounted Cash Flow Analysis* and were relied upon by Ladenburg Thalmann in connection with the rendering of its fairness opinion discussed above. The Projections were also made available to the board of directors of Vital Therapies in connection with the presentation of financial analyses by Ladenburg Thalmann.

Neither Vital Therapies nor Immunic, as a matter of course, publicly discloses forecasts, internal projections as to future performance, revenues, earnings or other results of operations due to the inherent unpredictability and subjectivity of underlying assumptions and projections. Immunic s future financial results may materially differ from those expressed in the Projections due to factors that are beyond Immunic s or Vital Therapies ability to control or predict. The inclusion of the Projections in this proxy statement/prospectus should not be regarded as an indication that Vital Therapies or any other recipient of this information considered, or now considers, this information to be predictive of actual future results. **In particular, the Projections should not be utilized as public guidance.**

135

Table of Contents

The Projections were prepared for internal use, and were not prepared with a view toward public disclosure, or compliance with published guidelines of the SEC or the guidelines established by the American Institute of Certified Public Accountants for preparation and presentation of prospective financial information, or GAAP.

Stockholders of Vital Therapies are urged to review the section entitled *Risk Factors* beginning on page 33 of this proxy statement/prospectus for a description of risk factors relating to the Transaction, Immunic s business and Vital Therapies business, and Vital Therapies most recent SEC filings for a description of risk factors with respect to Vital Therapies. Stockholders of Vital Therapies should also read the section entitled *Cautionary Statement Regarding Forward-Looking Statements* beginning on page 111 of this proxy statement/prospectus for additional information regarding the risks inherent in forward-looking information such as the Projections.

The Projections are not being included in this proxy statement/prospectus to influence the decision of stockholders of Vital Therapies of whether to vote in favor of the proposal to issue shares of Vital Therapies common stock or in favor of any other proposal contained in this proxy statement/prospectus. **In light of the foregoing factors and the uncertainties inherent in the Projections, stockholders are cautioned not to place undue, if any, reliance on the Projections.**

Immunic Reasons for the Transaction

In the course of reaching its decision to approve the Transaction, Immunic s board of directors consulted with its senior management, financial advisors and legal counsel, reviewed a significant amount of information and considered a number of factors, including, among others:

Immunic s need for capital to support the clinical development of its product candidates and the potential to access public market capital, including sources of capital from a broader range of investors than it could otherwise obtain if it continued to operate as a privately-held company;

the expectation that the Transaction would be a more time- and cost-effective means to access capital than other options considered;

the potential to provide its current shareholders with greater liquidity by owning stock in a public company;

the fact that shares of Vital Therapies common stock issued to Immunic shareholders will be registered pursuant to a registration statement on Form S-4 by Vital Therapies and will become freely tradable for Immunic s shareholders who are not affiliates of Immunic;

the likelihood that the Transaction will be consummated on a timely basis;

the terms and conditions of the Exchange Agreement, including, without limitation, the following:

the determination that an exchange ratio that is not subject to adjustment based on trading prices is appropriate to reflect the expected relative percentage ownership of Vital Therapies securityholders, Immunic securityholders and securityholders of those shares sold in the concurrent financing, based on the judgment of Immunic s board of directors;

the expectation that the Transaction will qualify as a transaction described under Section 351(a) of the Code for U.S. federal income tax purposes, with the result that the Immunic shareholders will not recognize taxable gain or loss for U.S. federal income tax purposes upon the exchange of Immunic common shares for Vital Therapies common stock pursuant to the Transaction;

the rights of Immunic under the Exchange Agreement to consider certain unsolicited competing proposals under certain circumstances should Immunic receive a superior proposal; and

the conclusion of Immunic s board of directors that the potential termination fee of $500,000 and/or expense reimbursements of up to $275,000, payable by Vital Therapies to Immunic and the circumstances when such fee may be payable, were reasonable.

Table of Contents

Immunic s board of directors also considered a number of uncertainties and risks in its deliberations concerning the Transaction and the other transactions contemplated by the Exchange Agreement, including the following:

- the possibility that the Transaction might not be completed in a timely manner, or at all, and the potential adverse effect of the public announcement of the Transaction on the reputation of Immunic and the ability of Immunic to obtain financing in the future in the event the Transaction is not completed;
- the termination fee of $2,000,000 and/or expense reimbursements of up to $275,000, payable by Immunic to Vital Therapies upon the occurrence of certain events, and the potential effect of such termination fee in deterring other potential acquirers from proposing a competing transaction that may be more advantageous to Immunic s shareholders;
- the expenses to be incurred in connection with the Transaction and related administrative challenges associated with combining the companies;
- the additional public company expenses and obligations that Immunic s business will be subject to following the Transaction to which it has not previously been subject; and
- various other risks associated with the company and the Transaction, including the risks described in the section entitled *Risk Factors* in this proxy statement/prospectus.

The foregoing information and factors considered by Immunic s board of directors are not intended to be exhaustive, but are believed to include all of the material factors considered by Immunic s board of directors. In view of the wide variety of factors considered in connection with its evaluation of the Transaction and the complexity of these matters, Immunic s board of directors did not find it useful, and did not attempt, to quantify, rank or otherwise assign relative weights to these factors. In considering the factors described above, individual members of Immunic s board of directors may have given different weight to different factors. Immunic s board of directors conducted an overall analysis of the factors described above, including thorough discussions with, and questioning of, Immunic s management and Immunic s legal advisors, and considered the factors overall to be favorable to, and to support, its determination.

Interests of the Directors and Executive Officers of Vital Therapies in the Transaction

In considering the recommendation of the board of directors that our stockholders vote to approve the Transaction, stockholders should be aware that our current and former directors and executive officers have interests in the Transaction that are different from, or in addition to, the interests of our stockholders generally. The members of the board of directors were aware of the different or additional interests and considered these interests, among other matters, in evaluating and negotiating the Exchange Agreement, and in recommending to stockholders that the Transaction be approved. See *The Transaction Vital Therapies Reasons for the Transaction* beginning on page 125 of this proxy statement/prospectus. Stockholders should take these interests into account in deciding whether to vote **FOR** Proposal 2. These interests are described in more detail below, and certain of them are quantified in the narrative and the tables below.

The names and positions of our executive officers as of the date of this proxy statement/prospectus are:

Dr. Duane D. Nash, Chief Executive Officer, President and Director;

Robert A. Ashley, Executive Vice President and Chief Scientific Officer;

Michael V. Swanson, Executive Vice President and Chief Financial Officer; and

John M. Dunn, General Counsel and Secretary.

The names of our non-employee directors as of the date of this proxy statement/prospectus are:

Faheem Hasnain;

Table of Contents

Cheryl L. Cohen; and

Lowell E. Sears.

On January 25, 2019, Russell J. Cox, who was our Chief Executive Officer and a member of the board of directors, was terminated without cause (as defined in his Change of Control and Severance Agreement) as an employee and as a director, and Dr. Nash, our President, was appointed as Chief Executive Officer and as a member of the board of directors, in addition to serving as our President.

Treatment of Equity Awards

In connection with the Transaction, the company restructured the Change of Control and Severance Agreements, or the Change of Control and Severance Agreements, with our current executive officers and Mr. Cox. In connection with the restructuring, on January 10, 2019, the compensation committee of the board of directors approved the cancellation of all stock options held by our then-current executive officers (including Mr. Cox) and, on January 11, 2019, in consideration for the cancellation of the stock options, and in exchange for severance that would otherwise be paid in cash on a change of control and termination of employment within the period beginning six months prior to, and ending on the date that is 12 months following the closing of the Transaction, or the Change of Control Period, granted our current and former executive officers awards of restricted stock units, or RSUs, under the 2014 Equity Incentive Plan as set forth in the table below. The RSUs will be settled in cash and/or shares of common stock at the sole discretion of the company, vest 25% on each of the first four anniversaries of January 11, 2019, and accelerate in full upon an involuntary termination of employment by the company without cause or a resignation by the executive for good reason as described below.

Name	RSUs Granted (#)
Executive Officers	
Dr. Duane D. Nash	886,316
Robert A. Ashley	816,634
Michael V. Swanson	817,826
John M. Dunn	724,848
Former Executive Officers	
Russell J. Cox	1,854,376

In addition, the Transaction will trigger the accelerated vesting of the stock options held by our non-employee directors pursuant to the existing terms and conditions of their stock options, as is further explained below under the heading *Outside Director Stock Options*. These stock options are out of the money, which means that they have an exercise price per share that is equal to or higher than the closing price of our common stock on February [ ], 2019, the latest practicable date before the date of this proxy statement/prospectus. Accordingly, the stock option awards are expected to be cancelled without consideration at the closing of the Transaction.

Table of Contents

The table below sets forth the number of unvested stock options, weighted average exercise price of such unvested stock options and the number of unvested RSUs that are currently held by certain of our current and former executive officers and our non-employee directors as of February [ ], 2019, the latest practicable date before the date of this proxy statement/prospectus.

Name	Number of Shares Underlying Unvested Stock Options (#)	Weighted Average Exercise Price of Unvested Stock Options ($)	Shares Underlying Unvested RSUs (#)
Executive Officers			
Dr. Duane D. Nash			886,316
Robert A. Ashley			816,634
Michael V. Swanson			817,826
John M. Dunn			724,848
Former Executive Officers			
Russell J. Cox			1,854,376
Non-Employee Directors			
Faheem Hasnain	64,539	6.04	
Cheryl L. Cohen	31,111	7.14	
Lowell E. Sears	29,538	6.10	

Change of Control and Severance Agreements

Each of our current executive officers and Mr. Cox is a party to a Change of Control and Severance Agreement which provides for the following separation benefits in the event of a termination of the executive s employment by Vital Therapies without cause or a resignation by the executive for good reason (as these terms are defined in such agreements):

- a lump sum payment equal to six months (or 12 months in the case of Mr. Cox) of his annual base salary for the year of termination;
- reimbursement by us for up to six months (or 12 months in the case of Mr. Cox) of COBRA premiums to continue health insurance coverage for such executive and such executive s eligible dependents, or taxable monthly payments for the equivalent period in the event payment for COBRA premiums would violate applicable law; and
- accelerated vesting of all equity awards held by the executive.

Each of the Change of Control and Severance Agreements defines change of control to include the sale of stock constituting more than 50% of the total voting power of the stock of Vital Therapies. The Transaction will be a sale of more than 50% of the total voting power of the stock of Vital Therapies and, therefore, will be a change of control for this purpose. Under each of the Change of Control and Severance Agreements, if the executive officer s termination of

employment by Vital Therapies without cause or by the executive for good reason (as such terms are defined in the applicable Change of Control and Severance Agreement) occurs during the Change of Control Period, then the executive is entitled to all severance benefits described in the bullets above in addition to the following enhancements:

- the base salary continuation payment is increased to 12 months for the executive officers other than Mr. Cox and 18 months for Mr. Cox, reduced by the total value, as of January 10, 2019, of the RSUs granted as if such RSUs had been settled in cash as of that date using an ascribed value of $0.255 per unit (which was the closing price of Vital Therapies common stock on January 10, 2019 when the compensation committee of the board of directors approved the cancellation of the stock options and the grant of the RSUs);

Table of Contents

1.0x for the executive officers other than Mr. Cox and 1.5x for Mr. Cox the greater of (i) such executive s target annual bonus (for the year of the change of control or such executive s termination, whichever is greater) or (ii) such executive s actual bonus for performance relating to the calendar year immediately prior to the calendar year of such executive s termination; and

the COBRA continuation coverage period is increased to 12 months for the executive officers other than Mr. Cox and 18 months for Mr. Cox.

Mr. Cox experienced an involuntary termination of employment without cause (as such term is defined in his Change of Control and Severance Agreement) on January 25, 2019. Assuming his termination falls within the Change of Control Period, Mr. Cox will receive the payments and benefits described above. Each of Dr. Nash and Messrs. Ashley, Swanson and Dunn is expected to experience an involuntary termination of employment by Vital Therapies by the completion of the Transaction.

The foregoing payments and benefits are subject to the executive s execution of a release of claims against Vital Therapies and its affiliates. The Change of Control and Severance Agreements also provide that in the event any payment or benefit made in connection with a change in control of Vital Therapies, referred to herein as the Change of Control Payments, would be subject to the excise tax imposed under Section 4999 of the Code, such Change of Control Payments will be either (i) reduced or (ii) provided in full, whichever results in the executive officer receiving the greater amount after taking into consideration the payment of all taxes, including the excise tax under Section 4999 of the Code. None of the executive officers is entitled to any tax gross up in respect of excise taxes, if any, that might be assessed under 4999 of the Code in respect of the Change of Control Payments.

For an estimate of the value of the payments and benefits described above under each of the Change of Control and Severance Agreements that would be payable by Vital Therapies to its current executive officers and Mr. Cox in connection with the closing of the Transaction, see the section entitled *Estimated Executive Severance* below.

Outside Director Stock Options

In connection with their service to the board of directors, each of our non-employee directors was granted stock options under the 2014 Equity Incentive Plan which accelerate in full upon a change in control occurring during the director s service on the board of directors. The applicable stock option award agreements define change in control to include a sale of stock constituting more than 50% of the total voting power of the stock of Vital Therapies. The Transaction will be a sale of more than 50% of the total voting power of the stock of Vital Therapies and, therefore, will be a change of control for this purpose.

Appointment of Directors

Effective as of January 25, 2019, Dr. Nash was appointed to the board of directors of the company. It is expected that Dr. Nash will continue to serve as a director following the Transaction and he will receive compensation for such services as a non-employee director following the Transaction.

Indemnification of Directors and Officers

Section 145 of the Delaware General Corporation Law, or the DGCL, authorizes a corporation s board of directors to grant, and authorizes a court to award, indemnity to officers, directors and other corporate agents.

As permitted by Section 102(b)(7) of the DGCL, our amended and restated certificate of incorporation contains provisions that limit the liability of our directors for monetary damages to the fullest extent permitted by Delaware law.

Table of Contents

In addition, our amended and restated bylaws provide that we will indemnify, to the fullest extent permitted by law, any person who is or was a party or is threatened to be made a party to any action, suit or proceeding by reason of the fact that he or she is or was one of the our directors or officers or is or was serving at our request as a director or officer of another corporation, partnership, joint venture, trust or other enterprise. Our amended and restated bylaws provide that we may indemnify to the fullest extent permitted by law any person who is or was a party or is threatened to be made a party to any action, suit or proceeding by reason of the fact that he or she is or was one of our employees or agents or is or was serving at our request as an employee or agent of another corporation, partnership, joint venture, trust or other enterprise. Our amended and restated bylaws also provide that we must advance expenses incurred by or on behalf of a director or officer in advance of the final disposition of any action or proceeding, subject to limited exceptions.

Further, we have entered into indemnification agreements with each of our directors and executive officers that may be broader than the specific indemnification provisions contained in the DGCL. These indemnification agreements require us, among other things, to indemnify our directors and executive officers against liabilities that may arise by reason of their status or service. These indemnification agreements also require us to advance all expenses incurred by the directors and executive officers in investigating or defending any such action, suit or proceeding.

The limitation of liability and indemnification provisions that are included in our amended and restated certificate of incorporation, amended and restated bylaws and the indemnification agreements that we have entered into with its directors and executive officers may discourage stockholders from bringing a lawsuit against our directors and executive officers for breach of their fiduciary duties. They may also reduce the likelihood of derivative litigation against our directors and executive officers, even though an action, if successful, might benefit the company and other stockholders. Further, a stockholder s investment may be adversely affected to the extent that we pay the costs of settlement and damage awards against directors and executive officers as required by these indemnification provisions.

We have obtained insurance policies under which, subject to the limitations of the policies, coverage is provided to our directors and executive officers against loss arising from claims made by reason of breach of fiduciary duty or other wrongful acts as a director or executive officer, including claims relating to public securities matters, and to us with respect to payments that may be made by us to these directors and executive officers pursuant to our indemnification obligations or otherwise as a matter of law.

Please see the section entitled *Interests of the Directors and Executive Officers of Immunic in the Transaction Indemnification and Directors and Officers Insurance Following the Closing of the Transaction* for information related to indemnification of directors and officers of Vital Therapies following the closing of the Transaction.

Potential Employment Agreements Following the Transaction

The Exchange Agreement does not impose any requirements on Immunic regarding retention or compensation of company employees such as our executive officers. At this time, it is expected that certain of our executive officers may enter into employment, consulting or compensation agreements with Vital Therapies or Immunic between the date of this proxy statement/prospectus and the closing of the Transaction. The terms of these potential arrangements have not been finalized.

Estimated Executive Severance

The table below sets forth the amount of payments and benefits that each of our current executive officers and Mr. Cox may receive that is based on or otherwise related to the Transaction, assuming that the Transaction was consummated and Dr. Nash and Messrs. Ashley, Swanson and Dunn experienced an involuntary termination of

Table of Contents

employment without cause (as defined in the applicable Change of Control and Severance Agreement) on February [ ], 2019, the latest practicable date before the date of this proxy statement/prospectus. Mr. Cox experienced an involuntary termination of employment without cause (as defined in his Change of Control and Severance Agreement) on January 25, 2019 and, assuming that his termination occurs within the Change of Control Period, he will be entitled to the payments and benefits described in this section under his Change of Control and Severance Agreement. The amounts below are determined using a per share price of Vital Therapies common stock of $[ ] on February [ ], 2019, the latest practicable date before the date of this proxy statement/prospectus, and do not reflect any reduction for tax withholdings. As a result of the foregoing assumptions, the actual amounts, if any, to be received by an executive officer may materially differ from the amounts set forth below.

Name	Cash ($) (1)	Equity ($) (2)	Perquisites / Benefits ($) (3)	Total ($)
Dr. Duane D. Nash	354,709	[ ]	33,446	[ ]
Robert A. Ashley	326,822	[ ]	35,693	[ ]
Michael V. Swanson	327,300	[ ]	15,921	[ ]
John M. Dunn	290,090	[ ]	35,693	[ ]
Russell J. Cox	742,134	[ ]	53,540	[ ]

(1) Amounts represent the cash severance that the executives are eligible to receive under the Change of Control and Severance Agreements payable in a lump sum upon a double-trigger qualifying termination, as described above under the heading *Change of Control and Severance Agreements*, during the Change of Control Period. In such an event, each of Dr. Nash and Messrs. Ashley, Swanson and Dunn would be entitled to receive a cash payment equal to 12 months of his annual base salary (for the year of the change of control or such executive s termination, whichever is greater), plus (y) 1.0x the greater of (A) such executive s target annual bonus (for the year of the change of control or such executive s termination, whichever is greater) or (B) such executive s actual bonus for performance relating to the calendar year immediately prior to the calendar year of such executive s termination. Mr. Cox, who experienced an involuntary termination of employment without cause (as defined in his Change of Control and Severance Agreement) on January 25, 2019, will be entitled to 18 months base salary continuation and 1.5x of his bonus as described above if his termination of employment falls within the Change of Control Period. The change of control severance amount is reduced by the total value, as of January 10, 2019, of the RSUs granted as if such RSUs had been settled in cash as of that date using an ascribed value of $0.255 per unit.

The following table quantifies each component included in the cash severance above.

Name	Base Salary Component of Cash Severance ($)	Bonus Component of Cash Severance ($)	*Less* Total Value of RSUs ($)	Total ($)
Dr. Duane D. Nash	414,800	165,920	226,011	354,709
Robert A. Ashley	396,344	138,720	208,242	326,822
Michael V. Swanson	396,923	138,923	208,545	327,300
John M. Dunn	351,797	123,129	184,836	290,090

Russell J. Cox	810,000	405,000	472,866	742,134

(2) Pursuant to the terms and conditions of the applicable Change of Control and Severance Agreement, the executives would be entitled to full accelerated vesting on termination of employment by Vital Therapies without cause or resignation by the executive for good reason (as such terms are defined in the applicable Change of Control and Severance Agreement). The vesting of the RSUs held by Mr. Cox, who experienced an involuntary termination of employment without cause (as defined in his Change of Control and Severance Agreement) on January 25, 2019, accelerated in connection with his termination of

Table of Contents

employment. The value of the unvested and accelerated RSUs is equal to $[ ] (which is the per share price on February [ ], 2019, the latest practicable date before the date of this proxy statement/prospectus), multiplied by the number of unvested RSUs as of such date.

(3) Under the executives individual Change of Control and Severance Agreement, upon a double-trigger qualifying termination, as described above under the heading *Change of Control and Severance Agreements*, during the Change of Control Period, each of Dr. Nash and Messrs. Ashley, Swanson and Dunn is entitled to reimbursement of COBRA payments made by the executive to maintain his group health plan benefits for 12 months following the date of termination. Mr. Cox, who experienced an involuntary termination of employment without cause (as defined in his Change of Control and Severance Agreement) on January 25, 2019, will be entitled to 18 months of COBRA continuation coverage following his date of termination if his termination of employment falls within the Change of Control Period. For Dr. Nash, his amount also includes the value of the contribution to his health savings account. In addition, under their Change of Control and Severance Agreements, the executives are entitled to be paid out for their accrued and unused vacation through the termination date. However, the executives do not accrue vacation and, therefore, will not be paid out for any accrued and unused vacation upon a termination of employment.

Interests of the Directors and Executive Officers of Immunic in the Transaction

Immunic shareholders should be aware that certain members of the board of directors and executive officers of Immunic have interests in the Transaction that may be different from, or in addition to, interests they may have as Immunic shareholders. Immunic s board of directors was aware of these potential conflicts of interest and considered them, among other matters, in reaching their respective decisions to approve the Exchange Agreement, the Transaction and related transactions.

Ownership Interests

Certain of Immunic s directors and executive officers currently hold Immunic common shares and preferred shares (in some cases indirectly through wholly-owned limited liability companies), each of which will be exchanged for Vital Therapies common stock upon the closing of the Transaction. In addition, certain of Immunic s directors and executive officers (through their respective limited liability companies) are entitled to receive additional Immunic common shares immediately prior to the Transaction pursuant to their exit bonus agreements, which provide for the settlement of certain bonus obligations in shares (see section *Immunic Exit Bonus Agreements* on page 144).

Table of Contents

The table below sets forth the anticipated ownership of Immunic common shares by Immunic s directors and executive officers, including Immunic shares held by shareholders affiliated with Immunic s directors and executive officers, immediately prior to the closing of the Transaction based on their ownership of as of January 15, 2019 and anticipated ownership immediately prior to the closing date of the Transaction:

Immunic Director or Officer Name	Immunic Shares Owned	Additional Immunic Common Shares to be issued pursuant to Subscription Agreement (1)
Dr. Daniel Vitt (2)	15,000	6,794
Dr. Andreas Muehler (3)	10,000	6,794
Dr. Hella Kohlhof (4)	10,000	6,794
Dr. Manfred Gröppel (5)	10,000	6,794
Dr. Gerhard Ries (6)	1,834	
Dr. Jörg Neermann		
Dr. Thomas Taapken		
Dr. Vincent Ossipow		
Jan van den Bossche		

(1) In connection with claims under certain exit bonus agreements which will be settled by issuance of the additional common shares.
(2) All shares are common shares held indirectly through Listrax UG (haftungsbeschränkt).
(3) All shares are common shares held indirectly through Xanomed UG (haftungsbeschränkt).
(4) All shares are common shares held indirectly through Constanze Investments UG (haftungsbeschränkt).
(5) All shares are common shares held indirectly through Gröppel Investments UG (haftungsbeschränkt).
(6) Comprised of 1,500 common shares, 18 Series A-1 preferred shares and 316 Series A-2 preferred shares.

Immunic Exit Bonus Agreements

Immunic s executive officers Dr. Daniel Vitt, Dr. Andreas Muehler, Dr. Hella Kohlhof, and Dr. Manfred Gröppel each entered into an exit bonus agreement with Immunic on December 4, 2018 that provides each of such executive officers and directors with the right to receive an exit bonus consisting of a 2% share in the proceeds (less transaction costs) resulting from a transaction which constitutes an Immunic exit event. An exit event comprises, among other things, a direct or indirect initial public offering of Immunic s shares and the sale and transfer of at least 50% of Immunic s shares; the Transaction, upon its closing, constitutes such an exit event. If the proceeds from the exit event consist of consideration in kind (e.g. shares), the exit bonus shall also be rendered in kind. Each of these executive officers transferred his/her rights under the respective exit bonus agreement to a limited liability company founded and controlled by such executive officer Dr. Daniel Vitt to Listrax UG (haftungsbeschränkt), Dr. Andreas Muehler to Xanomed UG (haftungsbeschränkt), Dr. Hella Kohlhof to Constanze Investments UG (haftungsbeschränkt), and Dr. Manfred Gröppel to Gröppel Investments UG (haftungsbeschränkt), or these limited liability companies as the Founder Vehicles.

In the Subscription Agreement, Immunic, its shareholders (including the Founder Vehicles) and Dr. Daniel Vitt, Dr. Andreas Muehler, Dr. Hella Kohlhof, and Dr. Manfred Gröppel agreed that the claims of the Founder Vehicles under the exit bonus agreement shall in each case be settled by the issuance of 6,794 new common shares in Immunic

to each Founder Vehicle. Upon the closing of the Transaction, the new common shares in Immunic issued to the Founder Vehicles will be exchanged for a number of shares of Vital Therapies common stock as determined pursuant to the Exchange Ratio.

Immunic Virtual Stock Option Plan

Immunic has a Virtual Stock Option Program for Members of the Supervisory Board dated August 26, 2017, or Supervisory Board VSOP, which provides for the grant of up to 1,840 virtual options to certain members of

Table of Contents

Immunic s supervisory board as beneficiaries. The virtual options under the Supervisory Board VSOP are modeled as phantom stock options: the beneficiaries do not acquire the right to acquire shares in Immunic at a predetermined price in the event that the option is exercised; instead, the beneficiary receives a direct cash payment (after deduction of taxes and charges) in an amount equal to the return the beneficiary would have received had the beneficiary sold shares in Immunic. Virtual stock options under the Supervisory Board VSOP are granted and allocated at the Immunic general shareholders meeting. The terms of the virtual options are set forth in separate grant letters with each beneficiary.

The virtual options are exercised automatically in case of an Immunic exit event. An exit event comprises, among other things, a direct or indirect initial public offering of Immunic s shares and the sale and transfer of at least 50% of Immunic s shares; the Transaction, upon its closing, constitutes such an exit event. The payment upon an exit event is calculated by multiplying the number of virtual options with the value of an Immunic common share at the time of the exit event.

Immunic has granted a total of 460 virtual options to Immunic s supervisory board member Dr. Thomas Taapken. Immunic has also granted a total of 655 virtual options to Dr. Jörg Neermann; however, Dr. Neermann is in the process of confirming whether he is permitted to accept these virtual options.

Management Following the Transaction

As described elsewhere in this proxy statement/prospectus, including in the section entitled *Management Following the Closing of the Transaction* beginning on page 242 of this proxy statement/prospectus, certain of Immunic s directors and executive officers are expected to become directors and executive officers of Vital Therapies (to be renamed Immunic, Inc.) upon the closing of the Transaction.

Indemnification and Directors and Officers Insurance Following the Closing of the Transaction

Under the Exchange Agreement, from the closing of the Transaction through the sixth anniversary of the closing, Vital Therapies and Immunic agreed to, jointly and severally, indemnify and hold harmless to the fullest extent allowed under Delaware law for directors or officers of Delaware corporations, each present and former director or officer of Vital Therapies and Immunic against all claims, losses and other costs, including attorneys fees, incurred in connection with any claim, action, suit, proceeding or investigation, arising out of such individual s position as a director or officer of Vital Therapies and Immunic, whether asserted before or after the effective time of the Transaction. Subject to certain circumstances, each such indemnified officer or director will also be entitled to the advancement of expenses incurred in the defense of such claim, action, suit, proceeding or investigation.

Under the Exchange Agreement, the amended and restated certificate of incorporation and bylaws of Vital Therapies at the closing of the Transaction will contain provisions no less favorable with respect to indemnification, advancement of expenses and exculpation of present and former directors and officers of each of Vital Therapies and Immunic than are presently set forth in the amended and restated certificate of incorporation and bylaws of Vital Therapies and Immunic, as applicable, which provisions shall not be amended, modified or repealed for a period of six years time from the closing of the Transaction in a manner that would adversely affect the rights thereunder of individuals who, at or prior to the closing, were officers or directors of Vital Therapies and Immunic.

The Exchange Agreement also provides that Vital Therapies shall purchase a tail insurance policy in effect for six years from the closing, providing at least the same coverage as the current directors and officers liability insurance policies maintained by Vital Therapies and containing terms and conditions that are not materially less favorable to current and former officers and directors of Vital Therapies.

145

Table of Contents

Form of the Transaction

Prior to the effective time, all of the Immunic preferred shares will be converted into Immunic common shares. At the effective time of the Transaction, each outstanding common share of Immunic will be exchanged for that number of shares of Vital Therapies common stock as determined pursuant to the Exchange Ratio described in more detail below.

After completion of the Transaction, assuming Proposal 2 is approved by Vital Therapies stockholders at the Vital Therapies special meeting, Vital Therapies will be renamed Immunic, Inc. and it is expected that the common stock of the company will trade on The Nasdaq Stock Market under the symbol IMUX.

Transaction Consideration and Exchange Ratio

At the effective time of the Transaction, each outstanding common share of Immunic will be exchanged for that number of shares of Vital Therapies common stock as determined pursuant to the Exchange Ratio described in more detail below.

No fractional shares of Vital Therapies common stock will be issued in connection with the Transaction. Instead, all fractional shares of Vital Therapies common stock issuable to each Immunic shareholder will be aggregated and will be rounded up into one full share of Vital Therapies common stock.

The Exchange Ratio is calculated using a formula intended to allocate existing Immunic securityholders (on a fully-diluted basis), a percentage of the company. The Exchange Ratio has been estimated to be approximately 735 shares of Vital Therapies common stock, subject to adjustment as provided in the Exchange Agreement, for each Immunic common share. The Exchange Ratio will be adjusted to account for the reverse stock split described in this proxy statement/prospectus.

Under the terms of the Exchange Agreement, in addition to certain adjustments to account for the issuance of any additional common shares of Immunic or any shares of common stock of Vital Therapies, as applicable, prior to the consummation of the Transaction, the Exchange Ratio at the closing of the Transaction may be subject to either (i) an upward adjustment to the extent that Vital Therapies net cash at the effective time of the Transaction is less than $4,200,000 (and as a result, Vital Therapies securityholders could own less, and Immunic securityholders could own more, of the company) or (ii) a downward adjustment to the extent that Vital Therapies net cash at the effective time of the Transaction is greater than $5,200,000 (and as a result, Vital Therapies securityholders could own more, and Immunic securityholders could own less, of the company). In addition, if Vital Therapies net cash at the effective time of the Transaction is less than a specified minimum amount of approximately $1,500,000, the Exchange Ratio at the closing of the Transaction may be subject to an additional upward adjustment (and as a result, Vital Therapies securityholders could own less, and Immunic securityholders could own more, of the company). The minimum specified amount will be $1,500,000 if the Transaction closes on or before March 31, 2019, and the minimum cash will be reduced by $5,000 for each day (including any partial day) after March 31, 2019 until the Transaction closes.

Based on the estimates set forth above, following the completion of the Transaction, (a) current Vital Therapies stockholders are expected to own approximately 11% of the common stock of the company and (b) Immunic shareholders are expected to own approximately 89% of the common stock of the company, on a fully-diluted basis, assuming that Immunic closes its concurrent financing immediately prior to the effective time of the Transaction.

The Exchange Ratio formula is the quotient obtained by dividing the number of Immunic transaction shares (defined below) by the Immunic outstanding shares (defined below), where:

Immunic transaction shares is the product determined by multiplying (i) the post-closing Vital Therapies shares by (ii) the Immunic allocation percentage.

Table of Contents

Immunic outstanding shares is the total number of common shares and preferred shares of Immunic outstanding immediately prior to the effective time of the Transaction on a fully-diluted and an as-converted to common stock basis, assuming (i) the consummation of the concurrent financing and (ii) the issuance of Immunic common shares in respect of all bonus arrangements or other rights to receive Immunic common shares that will be outstanding immediately prior to the effective time of the Transaction.

Post-closing Vital Therapies shares is the quotient determined by dividing (i) the Vital Therapies outstanding shares by (ii) the Vital Therapies allocation percentage.

Vital Therapies outstanding shares is the total number of shares of Vital Therapies common stock outstanding immediately prior to the effective time of the Transaction on a fully-diluted and an as-converted to common stock basis, assuming (i) the exercise of each Vital Therapies option outstanding and unexercised immediately prior to the effective time that has an exercise price less than or equal to the then current trading price for shares of Vital Therapies common stock (i.e., in-the-money options), excluding any portion thereof which cannot become vested or exercisable (due, for example, to a termination of service) or will otherwise not be outstanding immediately after the effective time, (ii) the settlement in shares of Vital Therapies common stock of each Vital Therapies restricted stock unit outstanding as of the effective time (including the Vital Severance RSUs), excluding any portion thereof which cannot become vested or exercisable (due, for example, to a termination of service) or will otherwise not be outstanding immediately after the effective time, and (iii) the exercise of each Vital Therapies warrant outstanding and unexercised immediately prior to the effective time that has an exercise price less than or equal to the then current trading price for shares of Vital Therapies common stock (i.e., in-the-money warrants) and will be outstanding immediately after the effective time. For the avoidance of doubt, shares of Vital Therapies common stock issuable upon the exercise of Vital Therapies options or Vital Therapies warrants that are not in-the-money immediately prior to the effective time will be excluded from the calculation of Vital Therapies outstanding shares.

Immunic allocation percentage is 1.00 minus the Vital Therapies allocation percentage.

Vital Therapies allocation percentage means the quotient determined by dividing (i) the sum of (a) $9,600,000 (or $7,000,000 if Vital Therapies does not have minimum net cash of approximately $1,500,000 at the anticipated closing date), plus (b) $4,700,000, or should the net cash for Vital Therapies be determined pursuant to the Exchange Agreement to be greater than $5,200,000 or less than $4,200,000, then such net cash amount, by (ii) the sum of (y) the product of (A) the Immunic outstanding shares multiplied by the price per Immunic common share for cash investors in the concurrent financing based upon the pre-money valuation of Immunic that shall not exceed $85,000,000, minus (B) the aggregate amount (if any) of all payments to be made to any current or former employee, consultant, independent contractor or director of Immunic in connection with the Transaction or the other contemplated transactions the extent in excess of $300,000, plus (z) the amount determined pursuant to clause (i).

For example, the Vital Therapies allocation percentage would be 11% if Vital Therapies net cash is $4,700,000, the product of the Immunic outstanding shares multiplied by the price per Immunic common share for cash investors in the concurrent financing is $115,000,000, and Immunic has no obligation to make payments to any current or former employee, consultant, independent contractor or director of Immunic in connection with the Transaction or the other contemplated transactions in excess of $300,000.

Stock Options and Warrants

Vital Therapies stock options that remain unexercised as of the effective time will be cancelled and terminated to the extent permitted pursuant to the applicable plan, without any right to receive any consideration. Vital Therapies warrants to purchase shares of Vital Therapies common stock that are outstanding immediately prior to the effective time of the Transaction will remain outstanding following the effective time of the Transaction.

Table of Contents

Closing Time of the Transaction

The Transaction will be completed as promptly as practicable after all of the conditions to completion of the Transaction are satisfied or waived, including the approval of the stockholders of Vital Therapies and Immunic. Vital Therapies and Immunic are working to complete the Transaction as quickly as practicable. However, Vital Therapies and Immunic cannot predict the exact timing of the completion of the Transaction because it is subject to various conditions.

Regulatory Approvals

Vital Therapies must comply with applicable federal and state securities laws and the rules and regulations of The Nasdaq Stock Market in connection with the issuance of shares of Vital Therapies common stock in the Transaction and the filing of this proxy statement/prospectus with the SEC.

Material German Tax Considerations to Immunic Shareholders Related to the Transaction

Scope of Discussion

The following is a summary of the expected material German tax consequences of the Transaction to shareholders of Immunic. The summary does not purport to be a comprehensive description of all of the tax considerations that may be relevant to each Immunic shareholder. The summary is based on German tax law and the practice of the German Tax Authorities currently in force in Germany. Legislative, administrative or judicial changes may modify the tax consequences described below, possibly with retrospective effect.

The summary deals with shareholders of Immunic who legally and beneficially own (or have owned in the last five years) 1% or more of the shares in Immunic. Particular rules not discussed below may apply to certain classes of taxpayers holding shares, such as dealers in securities, trusts, insurance companies, collective investment schemes and individuals who have or may be deemed to have acquired their shares by virtue of an office or employment. The summary does not constitute tax or legal advice and the comments below are of a general nature only. Immunic shareholders should consult their professional advisers on the German tax implications of the Transaction and the tax implications in other relevant jurisdictions.

The summary does not address the German tax consequences resulting from shares being attributable to (i) a permanent establishment outside of the shareholder s country of residence, or (ii) a permanent representative outside of the shareholder s country of residence.

Tax on Capital Gains at the Time of the Transaction

Under German tax law, the Transaction is considered as a disposition of the Immunic shares at fair market value and the acquisition of shares of Vital Therapies common stock at the same value. Therefore, the Transaction results in either a gain or loss from a German tax perspective at the Immunic shareholder level.

The income taxation of any such gain depends, in particular, on whether the Immunic shareholders are tax resident in or outside Germany, as well as whether the shares are held by a corporation, partnership or an individual either as private or commercial asset. For Immunic shareholders solely tax resident in Germany, capital gains deriving from shareholdings of 1% or more are generally 40% tax-exempt, when held by private individuals directly or via one or more partnerships. Shareholdings held directly or via one or more partnerships by a corporation are generally 95% tax-exempt (participation exemption). For Immunic shareholders not solely tax resident in Germany, bi- or

multilateral treaties, such as double taxation treaties, could modify the aforementioned tax implications.

Tax on Capital Gains After the Transaction

In case of a disposition of shares of Vital Therapies common stock by Immunic shareholders solely tax resident in Germany, the agreement between the United States of America and the Federal Republic of Germany for the

Table of Contents

Avoidance of Double Taxation and the Prevention of Fiscal Evasion with respect to Taxes on Income and Capital and to certain other Taxes as of June 4, 2008 (Abkommen zwischen der Bundesrepublik Deutschland und den Vereinigten Staaten von Amerika zur Vermeidung der Doppelbesteuerung und zur Verhinderung der Steuerverkürzung auf dem Gebiet der Steuern vom Einkommen und vom Vermögen und einiger anderer Steuern in der Fassung vom 4. Juni 2008) provides for any gains deriving from the disposal of Vital Therapies common stock to be generally taxable in Germany.

The income taxation of any such gain depends, in particular, on whether the Immunic shareholders are tax resident in or outside Germany, as well as whether the shares are held by a corporation, partnership or an individual either as private or commercial asset. Capital gains deriving from shareholdings of 1% or more are regularly 40% tax-exempt when held by private individuals directly or via one or more partnerships. Shareholdings held directly or via one or more partnerships by a corporation, are regularly 95% tax-exempt (participation exemption). For determining the taxable gain, the historical acquisition costs should be the fair market value as considered for the Transaction including any ancillary costs.

Material U.S. Federal Income Tax Consequences of the Transaction

Each of Immunic and Vital Therapies intends for, and has agreed to use its commercially reasonable efforts to cause, the Transaction to qualify as an exchange described in Section 351(a) of the Code. Each of Immunic and Vital Therapies has further agreed not to permit or cause any of their respective affiliates or any subsidiaries to take any action, or cause any action to be taken, which would cause the Transaction to fail to qualify as an exchange described in Section 351(a) of the Code.

Material U.S. Federal Income Tax Consequences of the Transaction to Immunic Shareholders

The following is a discussion of material U.S. federal income tax consequences and certain U.S. estate tax consequences of the Transaction applicable to Immunic shareholders who exchange their Immunic common shares for Vital Therapies common stock in the Transaction and the ownership and disposition of Vital Therapies common stock, but does not purport to be a complete analysis of all potential tax effects. The effects of other U.S. federal tax laws, such as estate and gift tax laws, and of applicable state, local, and non-U.S. tax laws, are not discussed. This discussion is based on the Internal Revenue Code of 1986, as amended, or the Code, U.S. Treasury Regulations promulgated thereunder, or the Regulations, judicial decisions, and published rulings and administrative pronouncements of the Internal Revenue Service, or the IRS, each in effect as of the date of this registration statement. Such authorities may change or be subject to differing interpretations, and any such change may be applied retroactively in a manner that could adversely affect a holder of Immunic common shares.

This discussion is limited to Immunic shareholders who hold their Immunic common shares as a capital asset within the meaning of Section 1221 of the Code (generally, property held for investment). This discussion does not address all U.S. federal income tax consequences relevant to the particular circumstances of an Immunic shareholder. In addition, it does not address consequences relevant to Immunic shareholders that are subject to special rules, including, without limitation:

persons subject to the alternative minimum tax;

persons whose functional currency is not the U.S. dollar;

persons holding Immunic common or preferred stock as part of a hedge, straddle, or other risk reduction strategy or as part of a conversion transaction or other integrated investment;

banks, insurance companies, and other financial institutions;

real estate investment trusts and regulated investment companies;

brokers, dealers, and traders in securities;

tax-exempt organizations and governmental organizations;

Table of Contents

persons deemed to sell Immunic common shares under the constructive sale provisions of the Code;

persons who hold or receive Immunic common shares pursuant to the exercise of any employee stock options or otherwise as compensation;

persons who hold Immunic common shares that is section 306 stock within the meaning of Section 306(c) of the Code;

persons required to accelerate the recognition of any item of gross income for U.S. federal income tax purposes with respect to Immunic common shares as a result of such item being taken into account in an applicable financial statement;

persons holding Immunic common shares who exercise dissenters rights; and

tax-qualified retirement plans.

Except where specified, this discussion is limited to Immunic shareholders that are Immunic U.S. Holders. For purposes of this discussion, an Immunic U.S. Holder is a beneficial owner of Immunic common shares that, for U.S. federal income tax purposes, is or is treated as:

an individual who is a citizen or resident of the United States;

a corporation created or organized in or under the laws of the United States, any state thereof, or the District of Columbia;

an estate the income of which is subject to U.S. federal income tax regardless of its source; or

a trust if either a court within the United States is able to exercise primary supervision over the administration of such trust and one or more United States persons (within the meaning of Section 7701(a)(30) of the Code) have the authority to control all substantial decisions of such trust, or the trust has a valid election in effect under applicable Regulations to be treated as a United States person for U.S. federal income tax purposes.

An Immunic Non-U.S. Holder means a beneficial owner of Immunic common shares that is not an Immunic U.S. Holder (except that, with respect to an entity (or other arrangement taxable as a partnership for U.S. federal income tax purposes)), an Immunic Non-U.S. Holder refers to any partner in such partnership that is not an Immunic U.S. Holder as defined in the previous sentence.

If an entity or arrangement treated as a partnership for U.S. federal income tax purposes holds Immunic common shares, the tax treatment of a partner in the partnership will depend in part on the status of the partner, the activities of

the partnership, and certain determinations made at the partner level. Accordingly, partnerships holding Immunic common shares and the partners in such partnerships should consult their tax advisors regarding the U.S. federal income tax consequences to them.

The following discussion does not address any tax consequences of transactions effectuated before, after, or at the same time as the Transaction, whether or not they are in connection with the Transaction, including, without limitation, transactions in which Immunic shares are acquired.

An Immunic shareholder that owns (immediately after the effectiveness of the Transaction) at least 5% (by vote or value) of the total outstanding stock of Vital Therapies is required to attach a statement to their U.S. federal tax return for the taxable year in which the Transaction is effective that contains the information listed in Regulations Section 1.351-3(a). Such statement must include the shareholder s tax basis in the Immunic common shares exchanged and the fair market value of such stock at the time of the exchange and the proposed Vital Therapies reverse stock split.

IMMUNIC SHAREHOLDERS SHOULD CONSULT THEIR TAX ADVISORS WITH RESPECT TO THE APPLICATION OF U.S. FEDERAL INCOME TAX LAWS TO THEIR PARTICULAR

Table of Contents

SITUATIONS AS WELL AS ANY TAX CONSEQUENCES OF THE TRANSACTION, AND THE OWNERSHIP AND DISPOSITION OF THE VITAL THERAPIES COMMON STOCK RECEIVED, ARISING UNDER THE U.S. FEDERAL ESTATE OR GIFT TAX LAWS OR UNDER THE LAWS OF ANY STATE, LOCAL, OR NON-U.S. TAXING JURISDICTION OR UNDER ANY APPLICABLE INCOME TAX TREATY.

Treatment of Immunic U.S. Holders in the Transaction

As an exchange described in Section 351(a) of the Code, and subject to the qualifications and assumptions described in this registration statement, the material U.S. federal income tax consequences of the Transaction are expected to be as follows:

- an Immunic U.S. Holder will not recognize gain or loss upon the exchange of Immunic common shares for Vital Therapies common stock pursuant to the Transaction;

- an Immunic U.S. Holder s aggregate tax basis in the shares of Vital Therapies common stock received in the Transaction will equal the shareholder s aggregate tax basis in the shares of Immunic common shares surrendered upon completion of the Transaction; and

- the holding period of the shares of Vital Therapies common stock received by an Immunic U.S. Holder in the Transaction will include the holding period of the shares of Immunic common shares surrendered in exchange therefor.

For purposes of the above discussion of the bases and holding periods for shares of Immunic common shares and Vital Therapies common stock, stockholders who acquired different blocks of Immunic common shares at different times or for different prices must calculate their gains and losses and holding periods separately for each identifiable block of such stock exchanged in the Transaction.

Passive Foreign Investment Company Rules

Notwithstanding the treatment of the Transaction as an exchange described in Section 351(a) of the Code, as described above, the Transaction could be a taxable event to Immunic U.S. Holders under the passive foreign investment company, or PFIC, provisions of the Code. In general, Immunic would be a PFIC with respect to an Immunic U.S. Holder if, for any taxable year in which such holder held Immunic common shares, (a) at least 75% of Immunic s gross income for the taxable year was passive income or (b) at least 50% of the value, determined on the basis of a quarterly average, of Immunic s assets were attributable to assets that produced or were held to produce passive income. Passive income generally includes dividends, interest, rents, and royalties, but excludes rents and royalties that are derived in the active conduct of a trade or business and that are received from an unrelated person, as well as annuities and gains from assets that produce passive income.

Based upon the composition of its income and assets, and upon a review of its financial statements, Immunic does not believe that it should be a PFIC for its taxable year ending on December 31, 2018. Based on the expected future operations, Immunic does not believe that it will be treated as a PFIC for its current taxable year ending on December 31, 2019. The determination of PFIC status, however, is fundamentally factual in nature, depends on the application of complex U.S. federal income tax rules which are subject to differing interpretations, and generally

cannot be determined until the close of the taxable year in question. Consequently, no assurance can be provided that Immunic has or has not been classified as a PFIC for any prior taxable year or whether Immunic will be classified as a PFIC during its current taxable year.

Section 1291(f) of the Code requires, to the extent provided in Regulations, a United States person who disposes of stock of a PFIC (including, generally, in a transaction that otherwise would be a non-recognition transaction) to recognize gain notwithstanding any other provision of the Code. No final Regulations are currently in effect under Section 1291(f) of the Code. However, proposed Regulations under Section 1291(f) of the Code have been

Table of Contents

promulgated with a retroactive effective date. If finalized in their current form, those Regulations may require taxable gain recognition on the Transaction if Immunic were classified as a PFIC at any time during such Immunic U.S. Holder s holding period in such stock, unless the Immunic U.S. Holder had properly made an applicable election. However, the proposed Regulations also contain an exception to the gain recognition rule for non-recognition transfers to a U.S. person, such as Vital Therapies, where the basis and holding period of the stock transferred does not increase and the aggregate ownership of the U.S. transferee and the U.S. transferor in the PFIC does not decrease. In that circumstance, special, adverse tax rules would apply with respect to an Immunic U.S. Holder s subsequent disposition of Vital Therapies common stock, unless the Immunic U.S. Holder had properly made an applicable election. Immunic U.S. Holders of Immunic stock should consult their tax advisors regarding the tax consequences of holding an interest in a PFIC.

Treatment if the Transaction Were Not a Non-Recognition Transaction

Subject to the PFIC rules discussed in the last sentence of this paragraph, if the Transaction did not qualify as an exchange described in Section 351 of the Code or otherwise qualify as a non-recognition transaction for U.S. federal tax purposes, then an Immunic U.S. Holder would recognize capital gain or loss in an amount equal to the difference between the value of the Vital Therapies common stock received and the Immunic U.S. Holder s tax basis allocable to the Immunic common shares exchanged for such Vital Therapies common stock. Capital gains or losses recognized as a result of the Transaction generally would constitute long-term capital gain or loss if the Immunic U.S. Holder s holding period in the Immunic common shares surrendered in the Transaction were more than one year as of the closing of the Transaction. The Immunic U.S. Holder s aggregate tax basis in the shares of Vital Therapies common stock received in the Transaction would equal their fair market value at the time of the closing of the Transaction, and the Immunic U.S. Holder s holding period of such shares of Vital Therapies common stock would commence the day after the closing of the Transaction. If the Transaction did not qualify as a non-recognition transaction for U.S. federal tax purposes, and Immunic was a PFIC for any taxable year during an Immunic U.S. Holder s holding period, then the Immunic U.S. Holder would be subject to special, adverse tax rules with respect to gain realized from the Transaction, unless the Immunic U.S. Holder had properly made an applicable election.

THE PRECEDING DISCUSSION DOES NOT PURPORT TO BE A COMPLETE ANALYSIS OR DISCUSSION OF ALL OF THE TRANSACTION S POTENTIAL TAX EFFECTS. IMMUNIC U.S. HOLDERS SHOULD CONSULT THEIR TAX ADVISORS AS TO THE SPECIFIC TAX CONSEQUENCES TO THEM OF THE TRANSACTION, INCLUDING TAX RETURN REPORTING REQUIREMENTS AND THE APPLICABILITY AND EFFECT OF FEDERAL, STATE, LOCAL, AND OTHER APPLICABLE TAX LAWS.

Treatment of Immunic Non-U.S. Holders in the Transaction

An Immunic Non-U.S. holder will not be subject to U.S. federal income or withholding tax on gain with respect to the Transaction if the Transaction is treated as an exchange described in Section 351(a) of the Code. If the Transaction were not treated as an exchange described in Section 351(a) of the Code or other non-recognition transaction, an Immunic Non-U.S. Holder still would not be subject to U.S. federal income or withholding tax on gain with respect to the Transaction unless:

such gain were effectively connected with the conduct by the Immunic Non-U.S. Holder of a trade or business within the United States or, if a tax treaty applied, were not attributable to a permanent establishment or fixed place of business maintained by the Immunic Non-U.S. Holder in the United States;

in the case of certain capital gains of an Immunic Non-U.S. Holder that is an individual, such holder is present in the United States for 183 days or more during the taxable year in which the capital gain is recognized and certain other conditions are met; or

such holder is subject to backup withholding as discussed below.

Table of Contents

THE PRECEDING DISCUSSION DOES NOT PURPORT TO BE A COMPLETE ANALYSIS OR DISCUSSION OF ALL OF THE TRANSACTION S POTENTIAL TAX EFFECTS. HOLDERS OF IMMUNIC STOCK SHOULD CONSULT THEIR TAX ADVISORS AS TO THE SPECIFIC TAX CONSEQUENCES TO THEM OF THE TRANSACTION, INCLUDING TAX RETURN REPORTING REQUIREMENTS, AND THE APPLICABILITY AND EFFECT OF FEDERAL, STATE, LOCAL AND OTHER APPLICABLE TAX LAWS.

Treatment of Vital Therapies Stockholders in the Transaction

There should be no material tax consequences for holders of Vital Therapies common stock as a result of the transaction.

Material Consequences of Ownership and Disposition of Vital Therapies Common Stock

Consequences to Immunic U.S. Holders of Ownership of Vital Therapies Common Stock

Distributions on Vital Therapies Common Stock to Immunic U.S. Holders

If Vital Therapies made distributions of cash or property on its common stock, those payments would constitute dividends for U.S. federal income tax purposes to the extent paid from current or accumulated earnings and profits, as determined under U.S. federal income tax principles. To the extent such distributions exceeded both current and accumulated earnings and profits, the excess would constitute a return of capital and would first reduce an Immunic U.S. Holder s tax basis in Vital Therapies common stock, but not below zero, and then would be treated by the Immunic U.S. Holder as gain from the sale of stock as described below under *Gain on Disposition of Vital Therapies Common Stock by Immunic U.S. Holders*.

Dividends paid to an Immunic U.S. Holder that is a taxable corporation generally would qualify for a dividends received deduction if the requisite holding period were satisfied. With certain exceptions (including, but not limited to, dividends treated as investment income for purposes of investment interest deduction limitations), and provided the Vital Therapies common stock was held for more than 60 days during the 121-day period beginning 60 days before the ex-dividend date and certain other holding period requirements were met, dividends paid to a non-corporate Immunic U.S. Holder generally would constitute qualified dividends that would be subject to tax at the maximum tax rate accorded to long-term capital gains. Dividends paid by Vital Therapies generally would be treated as income from U.S. sources. Immunic U.S. Holders should consult their own tax advisors regarding the holding period and other requirements that must be satisfied in order to qualify for the reduced maximum tax rate on dividends.

Gain on Disposition of Vital Therapies Common Stock by Immunic U.S. Holders

If an Immunic U.S. Holder sells or otherwise disposes of Vital Therapies common stock in a taxable transaction, the Immunic U.S. Holder will generally recognize capital gain or loss equal to the difference between the amount realized and the Immunic U.S. Holder s adjusted tax basis in the Vital Therapies common stock (subject to the PFIC rules discussed above under *Passive Foreign Investment Company Rules*). The capital gain or loss will be long-term capital gain or loss if the Immunic U.S. Holder s holding period for the Vital Therapies common stock is more than one year at the time of the disposition. Long-term capital gain of a non-corporate Immunic U.S. Holder is generally taxed at preferential rates. The deductibility of capital losses is subject to limitations.

Information Reporting and Backup Withholding

Immunic U.S. Holders may be subject to information withholding and/or backup withholding with respect to gross proceeds from the disposition of securities or from payments of dividends. Backup withholding (currently at the rate of 24%) may apply under certain circumstances if an Immunic U.S. Holder (1) fails to furnish a social security or other taxpayer identification number, or a TIN, (2) furnishes an incorrect TIN, (3) fails to report

Table of Contents

interest or dividends properly, or (4) fails to provide a certified statement on IRS Form W-9, signed under penalties of perjury, that the TIN provided is correct, that the Immunic U.S. Holder is not subject to backup withholding, and that the Immunic U.S. Holder is a U.S. person for U.S. federal income tax purposes. Any amount withheld from a payment under the backup withholding rules is allowable as a credit against (and may entitle an Immunic U.S. Holder to a refund with respect to) such Immunic U.S. Holder s federal income tax liability, provided that the required information is timely furnished to the IRS. Certain persons, including corporations and certain financial institutions, that demonstrate this fact if requested are exempt from information reporting and backup withholding. Immunic U.S. Holders should consult with tax advisors as to their qualification for exemption from information reporting and backup withholding.

Consequences to Immunic Non-U.S. Holders of Ownership of Vital Therapies Common Stock

Distributions on Vital Therapies Common Stock to Immunic Non-U.S. Holders

If Vital Therapies made distributions of cash or property on Vital Therapies common stock, those payments would constitute dividends for U.S. federal income tax purposes to the extent paid from current or accumulated earnings and profits, as determined under U.S. federal income tax principles. To the extent such distributions exceeded both current and accumulated earnings and profits, the excess would constitute a return of capital and would first reduce an Immunic Non-U.S. Holder s tax basis in Vital Therapies common stock, but not below zero, and then would be treated by an Immunic Non-U.S. Holder as gain from the sale of stock as described below under *Gain on Disposition of Vital Therapies Common Stock by Immunic Non-U.S. Holders*.

Subject to the discussion below of effectively-connected income, backup withholding, and FATCA, a dividend paid to an Immunic Non-U.S. Holder generally will be subject to U.S. withholding tax either at a rate of 30% of the gross amount of the dividend or such lower rate as may be specified by an applicable income tax treaty. To receive a reduced treaty rate, an Immunic Non-U.S. Holder must provide an appropriate IRS Form W-8 (or applicable successor form) and certify qualification for the reduced rate. If an Immunic Non-U.S. Holder is eligible for a reduced rate of U.S. withholding tax pursuant to an income tax treaty, such Immunic Non-U.S. Holder may obtain a refund or credit of any excess amounts withheld by timely filing an appropriate claim with the IRS.

Dividends that are received by an Immunic Non-U.S. Holder and that are effectively connected with such Immunic Non-U.S. Holder s conduct of a trade or business in the United States (and, if an applicable income tax treaty so provides, that are attributable to a permanent establishment or a fixed base maintained by such Immunic Non-U.S. Holder in the United States), are generally exempt from the 30% withholding tax if certain certification and disclosure requirements are satisfied. To obtain this exemption, an Immunic Non-U.S. Holder must provide an IRS Form W-8ECI (or applicable successor form) properly certifying such exemption. However, such effectively connected dividends, although not subject to withholding tax, generally are taxed at the same U.S. federal income tax rates as are applicable to U.S. persons, net of certain deductions and credits. In addition, dividends received by a corporate Immunic Non-U.S. Holder that are effectively connected with the conduct of a trade or business in the U.S. may also be subject to a branch profits tax at a rate of 30% or such lower rate as may be specified by an applicable income tax treaty. Immunic Non-U.S. Holders should consult tax advisors regarding any applicable income tax or other treaties that may provide for different rules.

Any documentation provided to an applicable withholding agent may need to be updated in certain circumstances. The certification requirements described above also may require an Immunic Non-U.S. Holder to provide a United States taxpayer identification number.

For additional withholding rules that may apply to dividends, including dividends paid to foreign financial institutions (as specifically defined by the applicable rules) or to certain other foreign entities that have substantial direct or indirect United States owners, see the discussion below under the headings *Information Reporting and Backup Withholding* and *Withholdable Payments to Foreign Financial Institutions and Other Foreign Entities*.

Table of Contents

Gain on Disposition of Vital Therapies Common Stock by Immunic Non-U.S. Holders

Subject to the discussion below under the headings *Information Reporting and Backup Withholding* and *Withholdable Payments to Foreign Financial Institutions and Other Foreign Entities*, an Immunic Non-U.S. Holder generally will not be required to pay U.S. federal income tax or withholding tax on any gain recognized upon the sale, exchange or other taxable disposition of Vital Therapies common stock unless:

- such gain were effectively connected with the conduct by the Immunic Non-U.S. Holder of a trade or business within the United States or, if a tax treaty applied, were not attributable to a permanent establishment or fixed place of business maintained by the Immunic Non-U.S. Holder in the United States;

- in the case of certain capital gains of an Immunic Non-U.S. Holder that is an individual, such holder is present in the United States for 183 days or more during the taxable year in which the capital gain is recognized and certain other conditions are met; or Vital Therapies common stock constitutes a United States real property interest by reason of Vital Therapies having the status of a United States real property holding corporation , or a USRPHC, for U.S. federal income tax purposes at any time within the shorter of the five-year period preceding such Immunic Non-U.S. Holder s disposition of such common stock and the Immunic Non-U.S. Holder s holding period, in which case the Immunic Non-U.S. Holder generally will be taxed on net gain derived from the sale or disposition at the rates applicable to U.S. persons.

Vital Therapies does not believe that it currently is or will become a USRPHC, and the remainder of this discussion so assumes. However, because the determination of whether a corporation is a USRPHC depends on the fair market value of its U.S. real property relative to the fair market value of its other business assets, there can be no assurance that Vital Therapies will not become a USRPHC in the future. Immunic Non-U.S. Holders should consult their tax advisors regarding any applicable income tax or other treaties that may provide for different rules.

Information Reporting and Backup Withholding

Vital Therapies or the applicable paying agent must report annually to the IRS the amount of dividends on common stock paid to Immunic Non-U.S. Holders and the amount of tax withheld, if any. A similar report will be sent to each Immunic Non-U.S. Holder. Copies of this information reporting may also be made available under the provisions of a specific income tax treaty or agreement with the tax authorities in an Immunic Non-U.S. Holder s country of residence.

Immunic Non-U.S. Holders will generally be subject to backup withholding for dividends on Vital Therapies common stock paid to such Immunic Non-U.S. Holders unless an exemption is established by, for example, properly certifying non-United States status on an appropriate IRS Form W-8 (or applicable successor form). Notwithstanding the foregoing, backup withholding and information reporting nevertheless may apply if either Vital Therapies or its paying agent has actual knowledge, or reason to know, that a holder of Vital Therapies common stock is a United States person.

Information reporting and backup withholding generally are not required with respect to the amount of any proceeds from the sale or other disposition of Vital Therapies common stock by an Immunic Non-U.S. Holder outside the United States through a foreign office of a foreign broker that does not have certain specified connections to the U.S. However, if an Immunic Non-U.S. Holder sells or otherwise disposes of shares of Vital Therapies common stock through a U.S. broker or the U.S. offices of a foreign broker, the broker will generally be required to report to the IRS the amount of proceeds paid to such Immunic Non-U.S. Holder and also to backup withhold on that amount unless the

broker is provided with appropriate certification of the Immunic Non-U.S. Holder s status as a non-United States person, or an exemption is otherwise established. Information reporting will also apply if an Immunic Non-U.S. Holder sells shares of common stock through a foreign broker

Table of Contents

deriving more than a specified percentage of its income from U.S. sources or having certain other connections to the U.S., unless such broker has documentary evidence in its records that such Immunic Non-U.S. Holder is a non-U.S. person and certain other conditions are met, or an exemption is otherwise established.

Backup withholding is not an additional tax. Any amounts withheld from a payment under the backup withholding rules may be refunded or credited against an Immunic Non-U.S. Holder s U.S. federal income tax liability, if any, provided that an appropriate claim is timely filed with the IRS. Immunic Non-U.S. Holders should consult their tax advisors regarding the application of the information reporting and backup withholding rules to investment in Vital Therapies common stock.

Withholdable Payments to Foreign Financial Institutions and Other Foreign Entities

The Foreign Account Tax Compliance Act, or FATCA, imposes a U.S. federal withholding tax of 30% on certain payments to foreign financial institutions (as specifically defined under these rules) and certain other non-U.S. persons that fail to comply with certain information reporting and certification requirements pertaining to their direct and indirect U.S. security holders and/or U.S. account holders. Such payments include dividends on Vital Therapies common stock. Under certain circumstances, an Immunic Non-U.S. Holder may be eligible for refunds or credits of such taxes. Notwithstanding the foregoing, the IRS has issued proposed Regulations upon which taxpayers may generally rely, that exclude gross proceeds from the sale or other disposition of stock from the application of the withholding tax imposed under FATCA. An intergovernmental agreement between the U.S. and an applicable foreign country may modify the requirements described in this paragraph. Immunic Non-U.S. Holders should consult with tax advisors regarding the possible implications of this legislation and any applicable intergovernmental agreements on investment in Vital Therapies common stock.

U.S. Federal Estate Tax

Shares of Vital Therapies common stock that are owned or treated as owned by an individual who is not a citizen or resident of the United States (as specially defined for U.S. federal estate tax purposes) at the time of death are considered U.S. situs assets and will be included in the individual s gross estate for U.S. federal estate tax purposes. Such shares, therefore, may be subject to U.S. federal estate tax, unless an applicable estate tax or other treaty provides otherwise.

THIS SUMMARY IS NOT INTENDED TO BE CONSTRUED AS LEGAL ADVICE. ALL U.S. AND IMMUNIC NON-U.S. HOLDERS ARE URGED TO CONSULT WITH TAX ADVISORS WITH RESPECT TO THE APPLICATION OF U.S. FEDERAL INCOME TAX LAWS TO THEIR PARTICULAR SITUATION, AS WELL AS ANY TAX CONSEQUENCES OF THE RECEIPT, OWNERSHIP, AND DISPOSITION OF VITAL THERAPIES COMMON STOCK ARISING UNDER U.S. FEDERAL ESTATE OR GIFT TAX RULES OR UNDER THE LAWS OF ANY STATE, LOCAL, NON-UNITED STATES OR OTHER TAXING JURISDICTION OR UNDER ANY APPLICABLE TAX TREATY, INCLUDING THE CONSEQUENCES OF ANY PROPOSED CHANGE IN APPLICABLE LAWS.

Anticipated Accounting Treatment

The Transaction will be recorded as a business combination under the acquisition method of accounting in accordance with U.S. GAAP. The business combination will be accounted for as a reverse acquisition and for accounting purposes, Immunic is considered to be acquiring Vital Therapies in this transaction. Management of Vital Therapies and Immunic have determined a preliminary estimate of the purchase price calculated as described in Note 2 to the unaudited pro forma condensed combined financial statements. The net tangible assets acquired and liabilities

assumed in connection with the Transaction are recorded at their estimated acquisition date fair values. The acquisition method of accounting is dependent upon certain valuations and any other studies and calculations deemed necessary that have yet to commence or progress to a stage where there is sufficient

Table of Contents

information for a definitive measurement. A final determination of these estimated fair values, which cannot be made prior to the completion of the transaction, will be based on the actual net tangible assets of Vital Therapies that exist as of the date of completion of the Transaction.

Nasdaq Stock Market Listing

Vital Therapies common stock currently is listed on The Nasdaq Global Market under the symbol VTL. Vital Therapies has agreed to use commercially reasonable efforts to (i) maintain its existing listing on The Nasdaq Global Market, (ii) prepare and submit to The Nasdaq Stock Market a notification form for the listing of the shares of Vital Therapies common stock to be issued to Immunic shareholders pursuant to the Transaction, (iii) cause such shares to be approved for listing and (iv) as required by Nasdaq Marketplace Rule 5110, file an initial listing application for the company on The Nasdaq Stock Market and to cause such listing application to be approved for listing. In addition, under the Exchange Agreement, each of Immunic s and Vital Therapies obligation to complete the Transaction is subject to the satisfaction or waiver by each of the parties, at or prior to the Transaction, of various conditions, including that the existing shares of Vital Therapies common stock must have been continually listed on The Nasdaq Global Market, Vital Therapies must have caused the shares of Vital Therapies common stock to be issued in the Transaction to be approved for listing on The Nasdaq Stock Market as of the effective time of the Transaction and, to the extent required by Nasdaq Marketplace Rule 5110, the initial listing application for the company must be approved for listing. If such application is accepted, Vital Therapies anticipates that its common stock will be listed on The Nasdaq Stock Market following the closing of the Transaction under the trading symbol IMUX.

Appraisal Rights

Holders of Vital Therapies common stock are not entitled to appraisal rights in connection with the Transaction.

Table of Contents

THE EXCHANGE AGREEMENT

The following is a summary of the material terms of the Exchange Agreement. A copy of the Exchange Agreement is attached as Annex A to this proxy statement/prospectus and is incorporated by reference into this proxy statement/prospectus. The Exchange Agreement has been attached to this proxy statement/prospectus to provide you with information regarding its terms. It is not intended to provide any other factual information about Vital Therapies or Immunic. The following description does not purport to be complete and is qualified in its entirety by reference to the Exchange Agreement. You should refer to the full text of the Exchange Agreement for details of the Transaction and the terms and conditions of the Exchange Agreement.

The Exchange Agreement contains representations and warranties that Vital Therapies, on the one hand, and Immunic and its stockholders, on the other hand, have made to one another as of specific dates. These representations and warranties have been made for the benefit of the other parties to the Exchange Agreement and may be intended not as statements of fact but rather as a way of allocating the risk to one of the parties if those statements prove to be incorrect. In addition, the assertions embodied in the representations and warranties are qualified by information in confidential disclosure schedules exchanged by the parties in connection with signing the Exchange Agreement. While Vital Therapies and Immunic do not believe that these disclosure schedules contain information required to be publicly disclosed under the applicable securities laws, other than information that has already been so disclosed, the disclosure schedules do contain information that modifies, qualifies and creates exceptions to the representations and warranties set forth in the attached Exchange Agreement. Accordingly, you should not rely on the representations and warranties as current characterizations of factual information about Vital Therapies or Immunic, because they were made as of specific dates, may be intended merely as a risk allocation mechanism between Vital Therapies, Immunic and its stockholders and are modified by the disclosure schedules.

Structure

Prior to the effective time, all of the Immunic preferred shares will be converted into Immunic common shares. At the effective time of the Transaction, each outstanding common share of Immunic will be exchanged for that number of shares of Vital Therapies common stock as determined pursuant to the Exchange Ratio described in more detail below.

Completion and Effectiveness of the Transaction

The Transaction will be completed as promptly as practicable after all of the conditions to completion of the Transaction are satisfied or waived, including the approval of the stockholders of Vital Therapies. Vital Therapies and Immunic are working to complete the Transaction as quickly as practicable. However, Vital Therapies and Immunic cannot predict the exact timing of the completion of the Transaction because it is subject to various conditions.

Transaction Consideration and Exchange Ratio

Prior to the effective time, all of the Immunic preferred shares will be converted into Immunic common shares. At the effective time of the Transaction, each outstanding common share of Immunic will be exchanged for that number of shares of Vital Therapies common stock as determined pursuant to the Exchange Ratio described in more detail below.

No fractional shares of Vital Therapies common stock will be issued in connection with the Transaction. Instead, all fractional shares of Vital Therapies common stock issuable to each Immunic shareholder will be aggregated and will be rounded up into one full share of Vital Therapies common stock.

The Exchange Ratio is calculated using a formula intended to allocate existing Immunic securityholders (on a fully-diluted basis), a percentage of the company. It is currently anticipated that, at the closing of the Transaction,

Table of Contents

the Exchange Ratio will be approximately 735 shares of Vital Therapies common stock per Immunic common share. The Exchange Ratio will be adjusted to account for the reverse stock split described in this proxy statement/prospectus.

Under the terms of the Exchange Agreement, in addition to certain adjustments to account for the issuance of any additional common shares of Immunic or any shares of common stock of Vital Therapies, as applicable, prior to the consummation of the Transaction, the Exchange Ratio at the closing of the Transaction may be subject to either (i) an upward adjustment to the extent that Vital Therapies net cash at the effective time of the Transaction is less than $4,200,000 (and as a result, Vital Therapies securityholders could own less, and Immunic securityholders could own more, of the company) or (ii) a downward adjustment to the extent that Vital Therapies net cash at the effective time of the Transaction is greater than $5,200,000 (and as a result, Vital Therapies securityholders could own more, and Immunic securityholders could own less, of the company). In addition, if Vital Therapies net cash at the effective time of the Transaction is less than a specified minimum amount of approximately $1,500,000, the Exchange Ratio at the closing of the Transaction may be subject to an additional upward adjustment (and as a result, Vital Therapies securityholders could own less, and Immunic securityholders could own more, of the company). The minimum specified amount will be $1,500,000 if the Transaction closes on or before March 31, 2019, and the minimum cash will be reduced by $5,000 for each day (including any partial day) after March 31, 2019 until the Transaction closes.

Based on the estimates set forth above, following the completion of the Transaction, (a) current Vital Therapies stockholders are expected to own approximately 11% of the common stock of the company and (b) Immunic shareholders are expected to own approximately 89% of the common stock of the company, on a fully-diluted basis (including shares issued in Immunic s concurrent financing), assuming that Immunic closes its concurrent financing immediately prior to the effective time of the Transaction.

The Exchange Ratio formula is the quotient obtained by dividing the number of Immunic transaction shares (defined below) by the Immunic outstanding shares (defined below), where:

Immunic transaction shares is the product determined by multiplying (i) the post-closing Vital Therapies shares by (ii) the Immunic allocation percentage.

Immunic outstanding shares is the total number of common shares and preferred shares of Immunic outstanding immediately prior to the effective time of the Transaction on a fully-diluted and an as-converted to common stock basis, assuming (i) the consummation of the concurrent financing and (ii) the issuance of Immunic common shares in respect of all bonus arrangements or other rights to receive Immunic common shares that will be outstanding immediately prior to the effective time of the Transaction.

Post-closing Vital Therapies shares is the quotient determined by dividing (i) the Vital Therapies outstanding shares by (ii) the Vital Therapies allocation percentage.

Vital Therapies outstanding shares is the total number of shares of Vital Therapies common stock outstanding immediately prior to the effective time of the Transaction on a fully-diluted and an as-converted to common stock basis, assuming (i) the exercise of each Vital Therapies option outstanding and unexercised immediately prior to the effective time that has an exercise price less than or equal to the then current trading

price for shares of Vital Therapies common stock (i.e., in-the-money options), excluding any portion thereof which cannot become vested or exercisable (due, for example, to a termination of service) or will otherwise not be outstanding immediately after the effective time, (ii) the settlement in shares of Vital Therapies common stock of each Vital Therapies restricted stock unit outstanding as of the effective time (including the Vital Severance RSUs), excluding any portion thereof which cannot become vested or exercisable (due, for example, to a termination of service) or will otherwise not be outstanding immediately after the effective time, and (iii) the exercise of each Vital Therapies warrant outstanding and unexercised immediately prior to the effective time that has an exercise price less than or equal to the then current trading price for shares of

Table of Contents

Vital Therapies common stock (i.e., in-the-money warrants) and will be outstanding immediately after the effective time. For the avoidance of doubt, shares of Vital Therapies common stock issuable upon the exercise of Vital Therapies options or Vital Therapies warrants that are not in-the-money immediately prior to the effective time will be excluded from the calculation of Vital Therapies outstanding shares.

Immunic allocation percentage is 1.00 minus the Vital Therapies allocation percentage.

Vital Therapies allocation percentage means the quotient determined by dividing (i) the sum of (a) $9,600,000 (or $7,000,000 if Vital Therapies does not have minimum net cash of approximately $1,500,000 at the anticipated closing date), plus (b) $4,700,000, or should the net cash for Vital Therapies be determined pursuant to the Exchange Agreement to be greater than $5,200,000 or less than $4,200,000, then such net cash amount, by (ii) the sum of (y) the product of (A) the Immunic outstanding shares multiplied by the price per Immunic common share for cash investors in the concurrent financing based upon the pre-money valuation of Immunic that shall not exceed $85,000,000, minus (B) the aggregate amount (if any) of all payments to be made to any current or former employee, consultant, independent contractor or director of Immunic in connection with the Transaction or the other contemplated transactions the extent in excess of $300,000, plus (z) the amount determined pursuant to clause (i).

For example, the Vital Therapies allocation percentage would be approximately 11% if Vital Therapies net cash is $4,700,000, the product of the Immunic outstanding shares multiplied by the price per Immunic common share for cash investors in the concurrent financing is $115,000,000, and Immunic has no obligation to make payments to any current or former employee, consultant, independent contractor or director of Immunic in connection with the Transaction or the other contemplated transactions in excess of $300,000.

Determination of Vital Therapies Net Cash

For purposes of determining the Exchange Ratio, Vital Therapies net cash will be calculated shortly before the closing date of the Transaction. The closing of the Transaction could be delayed if Immunic and Vital Therapies are not able to agree upon the amount of Vital Therapies net cash as of Vital Therapies cash determination date.

Under the Exchange Agreement, Vital Therapies net cash is defined as (i) the sum of Vital Therapies cash and cash equivalents, marketable securities, accounts, interest and other receivables (to the extent determined to be collectible), and deposits (to the extent refundable to Vital Therapies or applicable to the business of Vital Therapies after the closing of the Transaction), in each case as of the anticipated closing date, determined in a manner consistent with the manner in which such items were historically determined and in accordance with the Vital Therapies audited financial statements and the Vital Therapies unaudited interim balance sheet, *minus* (ii) the sum of Vital Therapies accounts payable and accrued expenses (without duplication of any expenses accounted for below), in each case as of such date and determined in a manner consistent with the manner in which such items were historically determined and in accordance with the Vital Therapies audited financial statements and the Vital Therapies unaudited interim balance sheet, *minus* (iii) the cash cost of any unpaid change of control payments or severance, termination or similar payments, including any COBRA related obligations (excluding, for the avoidance of doubt, payments made in the form of Vital Severance RSUs) that are or become due as a result of the contemplated transactions to any current or former employee, director or independent contractor of Vital Therapies, *minus* (iv) any unpaid fees and expenses (including any attorney s, accountant s, financial advisor s or finder s fees) for which Vital Therapies is liable and which have been incurred by Vital Therapies in connection with the Exchange Agreement and the contemplated transactions, *minus* (v) any and all other *bona fide* current and long-term liabilities payable in cash that would be required to be set forth in a balance sheet prepared in accordance with GAAP (including any remaining post-closing liabilities on real

property leases held by Vital Therapies as of the anticipated closing date that have not been assigned or the subject of an effective sublease), in each case to the extent not paid or canceled at or prior to the anticipated closing date or scheduled for cancellation prior to the closing, *plus* or *minus* (vi) the net amount of

Table of Contents

any transaction expense reimbursement owed to, or transaction expense payment owed by, Vital Therapies pursuant to the Exchange Agreement, *plus* (vii) the amount of any prepaid expenses for goods or services to be provided to Vital Therapies after the Closing, *plus* (viii) any amounts paid by Vital Therapies or liabilities incurred prior to the closing that are approved in writing to be covered by insurance where payment will occur after the closing (net, as applicable, of any deductible), *plus* (ix) the amount of any consideration received by Vital Therapies for any transaction or held in escrow in respect of any such transaction and payable to Vital Therapies upon approval of any such transaction (including following the closing) by the Vital Therapies stockholders or upon a good faith determination by the Vital Therapies board of directors that any such transaction does not constitute the sale of all or substantially all of the assets of Vital Therapies, or otherwise reasonably certain of receipt by Vital Therapies (as determined in the sole discretion of Immunic), *plus* (x) 50% of the amounts paid or payable by Vital Therapies in respect of the audit of Vital Therapies financial statements at and for the year ending December 31, 2018, as well as for the preparation of Vital Therapies Annual Report on Form 10-K for the year ended December 31, 2018 and, if applicable, the preparation of Vital Therapies Quarterly Report on Form 10-Q for the quarter ending March 31, 2019, *plus* (xi) any amounts paid by Vital Therapies or liabilities incurred in obtaining any regulatory approvals needed to ensure that the Vital Therapies common stock to be issued in the Transaction shall be registered or qualified or exempt from registration or qualification under the securities law of Germany as contemplated by the Exchange Agreement, and *plus* (l) any amounts paid or payable by Vital Therapies for activities requested by Immunic (to the extent not otherwise in fulfillment of Vital Therapies obligations under the Exchange Agreement).

Vital Therapies net cash balance at the determination date is subject to numerous factors, many of which are outside of Vital Therapies control. Furthermore, the Exchange Ratio at the closing will be subject to either (i) an upward adjustment to the extent that Vital Therapies net cash at the effective time of the Transaction is less than $4,200,000 (and as a result, Vital Therapies securityholders could own less, and Immunic securityholders could own more, of the company) or (ii) a downward adjustment to the extent that Vital Therapies net cash at the effective time of the Transaction is greater than $5,200,000 (and as a result, Vital Therapies securityholders could own more, and Immunic securityholders could own less, of the company); in addition, if Vital Therapies net cash at the effective time of the Transaction is less than a specified minimum amount of approximately $1,500,000, the Exchange Ratio at the closing of the Transaction may be subject to an additional upward adjustment (and as a result, Vital Therapies securityholders could own less, and Immunic securityholders could own more, of the company). The minimum specified amount will be $1,500,000 if the Transaction closes on or before March 31, 2019, and the minimum cash will be reduced by $5,000 for each day (including any partial day) after March 31, 2019 until the Transaction closes, as described under *The Exchange Agreement Transaction Consideration and Exchange Ratio*.

Vital Therapies Common Stock

Prior to giving effect to the reverse stock split, each share of Vital Therapies common stock issued and outstanding at the time of the Transaction will remain issued and outstanding and those shares will be unaffected by the Transaction. After giving effect to the reverse stock split, every 30 to 60 shares (or any number in between) of Vital Therapies common stock issued and outstanding would be combined and reclassified into one share of Vital Therapies common stock. Vital Therapies stock options that remain outstanding and unexercised immediately prior to the effective time of the Transaction will be cancelled and terminated if permitted by the applicable option plan governing such options, without any right to receive any consideration. Immediately after the Transaction, it is estimated Vital Therapies securityholders will own approximately 11% of the common stock of the company on a fully-diluted basis, assuming that Immunic closes its concurrent financing immediately prior to the closing of the Transaction and subject to adjustment as provided in the Exchange Agreement.

161

Table of Contents

Fractional Shares

No fractional shares of Vital Therapies common stock will be issued in connection with the Transaction. Instead, all fractional shares of Vital Therapies common stock issuable to each Immunic shareholder will be aggregated and will be rounded up into one full share of Vital Therapies common stock.

Representations and Warranties

The Exchange Agreement contains customary representations and warranties made by Vital Therapies, Immunic and Immunic s shareholders relating to their respective businesses, as well as other facts pertinent to the Transaction. These representations and warranties are subject to materiality, knowledge and other similar qualifications in many respects and expire at the effective time of the Transaction or termination of the Exchange Agreement, as further described below. The representations and warranties of each of Vital Therapies, Immunic and Immunic s shareholders have been made solely for the benefit of the other parties and those representations and warranties should not be relied on by any other person. In addition, those representations and warranties may be intended not as statements of actual fact, but rather as a way of allocating risk among the parties, may have been modified by the disclosure schedules delivered in connection with the Exchange Agreement, are subject to the materiality standard described in the Exchange Agreement, which may differ from what may be viewed as material by you, will not survive completion of the Transaction and cannot be the basis for any claims under the Exchange Agreement by the other parties after termination of the Exchange Agreement, and were made only as of the date of the Exchange Agreement or another date as is specified in the Exchange Agreement.

Immunic and its shareholders made a number of representations and warranties to Vital Therapies in the Exchange Agreement, including representations and warranties relating to the following matters:

Subsidiaries; Due Organization; Organizational Documents;

Authority; Vote Required;

Non-Contravention; Consents;

Capitalization;

Financial Statements;

Absence of Changes;

Title to Assets;

Real Property; Leaseholds;

Intellectual Property;

Material Contracts;

Undisclosed Liabilities;

Compliance; Permits; Restrictions;

Tax Matters;

Employee and Labor Matters; Benefit Plans;

Environmental Matters;

Insurance;

Legal Proceedings; Orders;

Inapplicability of Anti-takeover Statutes;

No Immunic Financial Advisor;

Table of Contents

Immunic Subscription Agreement;

Disclosure;

Organization and Authority of Holders;

Title to Shares;

Holder Conflicts;

No Holder Violation or Litigation;

No Brokers for Holders;

Holder Subscription Agreement;

Purchase Entirely for Own Account;

Disclosure of Information;

Restricted Securities;

Legends;

Foreign Investors;

No General Solicitation;

Residence; and

No Other Representations or Warranties.

Significant portions of Immunic s and its shareholders representations and warranties are qualified as to materiality or material adverse effect. Under the Exchange Agreement, a material adverse effect with respect to Immunic means any

effect, change, event, circumstance or development that has occurred prior to the date of determination of the occurrence of such material adverse effect, that is or would reasonably be expected to be materially adverse to or has or would reasonably be expected to have or result in a material adverse effect on (i) the business, condition (financial or otherwise), capitalization, assets, operations or financial performance of Immunic and its subsidiaries, taken as a whole or (ii) the ability of Immunic to consummate the transactions contemplated by the Exchange Agreement or perform any of its covenants or obligations under the Exchange Agreement in all material respects, except that none of the following, as they apply to Immunic and its subsidiaries, will be taken into account in determining whether there has been a material adverse effect of Immunic:

any rejection by a governmental body of a registration or filing by Immunic relating to Immunic s intellectual property rights;

any change in the cash position of Immunic that results from operations in the ordinary course of business;

conditions generally affecting the industries in which Immunic participates or the global economy or capital markets as a whole, to the extent that such conditions do not have a disproportionate impact on Immunic and its subsidiaries, taken as a whole;

any failure by Immunic to meet internal projections or forecasts on or after the date of the Exchange Agreement, provided that any such effect, change, event, circumstance or development causing or contributing to any such failure to meet projections or forecasts may constitute a material adverse effect of Immunic and may be taken into account in determining whether a material adverse effect of Immunic has occurred;

any natural disaster or any acts of terrorism, sabotage, military action or war or any escalation or worsening thereof; or

any changes after the date of the Exchange Agreement in U.S. GAAP or applicable laws.

Table of Contents

Vital Therapies made a number of representations and warranties to Immunic in the Exchange Agreement, including representations and warranties relating to the following subject matters:

Subsidiaries; Due Organization; Organizational Documents;

Authority; Vote Required;

Non-Contravention; Consents;

Capitalization;

SEC Filings; Financial Statements;

Absence of Changes;

Undisclosed Liabilities;

Compliance; Permits; Restrictions;

Tax Matters;

Employee and Labor Matters; Benefit Plans;

Environmental Matters;

Insurance;

Legal Proceedings; Orders;

Real Property; Leasehold;

Intellectual Property;

Material Contracts;

Shell Company Status;

No Financial Advisor;

Anti-Corruption Matters;

Disclosure;

Valid Issuance; and

Opinion of Financial Advisor.

Similar to Immunic s representations and warranties, significant portions of Vital Therapies representations and warranties are qualified as to materiality or material adverse effect. Under the Exchange Agreement, a material adverse effect with respect to Vital Therapies means any effect, change, event, circumstance or development that has occurred prior to the date of determination of the occurrence of such material adverse effect, that is or would reasonably be expected to be materially adverse to or has or would reasonably be expected to have or result in a material adverse effect on (i) the business, condition (financial or otherwise), capitalization, assets, operations or financial performance of Vital Therapies or (ii) the ability of Vital Therapies to consummate the transactions contemplated by the Exchange Agreement or perform any of its covenants or obligations under the Exchange Agreement in all material respects, except that none of the following, as they apply to Vital Therapies, will be taken into account in determining whether there has been a material adverse effect of Vital Therapies:

any rejection by a governmental body of a registration or filing by Vital Therapies relating to Vital Therapies intellectual property rights;

any change in the cash position of Vital Therapies that results from operations in the ordinary course of business;

Table of Contents

conditions generally affecting the industries in which Vital Therapies participates or the U.S. or global economy or capital markets as a whole, to the extent that such conditions do not have a disproportionate impact on Vital Therapies;

any failure by Vital Therapies to meet internal projections or forecasts or third-party revenue or earnings predictions for any period ending (or for which revenues or earnings are released) on or after the date of the Exchange Agreement or any change in the price or trading volume of Vital Therapies common stock, provided that any such effect, change, event, circumstance or development causing or contributing to any such failure to meet projections or forecasts or any change in stock price or trading volume may constitute a material adverse effect of Vital Therapies and may be taken into account in determining whether a material adverse effect of Vital Therapies has occurred;

a transfer, sale, lease, disposition or license of assets by Vital Therapies that is permitted under the Exchange Agreement;

the execution, delivery, announcement or performance of obligations under the Exchange Agreement or the announcement, pendency or anticipated consummation of the Transaction or Immunic s concurrent financing;

any natural disaster or any acts of terrorism, sabotage, military action or war or any escalation or worsening thereof; or

any changes after the date of the Exchange Agreement in U.S. GAAP or applicable laws.

Covenants; Conduct of Business Pending the Transaction

During the period commencing on January 6, 2019 and ending at the earlier of the date of termination of the Exchange Agreement or the effective time of the Transaction, each party agreed that it will conduct its business in the ordinary course and in compliance with all applicable laws, rules, regulations, and certain material contracts and will provide the other party with prompt notice upon the occurrence of certain events or discovery of certain conditions, facts or circumstances.

Immunic also agreed that prior to the earlier of termination and the effective time of the Transaction, subject to certain limited exceptions set forth in the Exchange Agreement, without the consent of Vital Therapies, it would not and would not permit any of its subsidiaries to:

declare, accrue, set aside or pay any dividend or make any other distribution in respect of any Immunic common shares or repurchase, redeem or otherwise reacquire any shares of its capital stock or other securities except pursuant to Immunic contracts existing as of the date of the Exchange Agreement;

sell, issue or grant, or authorize the issuance of any capital stock or other security (except in connection with the concurrent financing or for Immunic common shares issued in connection with the Exit Bonus

Agreements), any option, warrant or right to purchase any capital stock or any other security, or any equity-based award or instrument convertible into or exchangeable for any capital stock or other security or any debt securities or any rights to acquire debt securities;

amend or modify any organizational documents of Immunic (other than in connection with Immunic s concurrent financing), or effect or be a party to any merger, consolidation, share exchange, business combination, recapitalization, reclassification of shares, stock split, reverse stock split or similar transaction;

form any subsidiary or acquire any equity interest or other interest in any other entity (other than in the ordinary course of business);

lend money to any person, incur or guarantee any indebtedness for borrowed money (other than in the ordinary course of business) or guarantee any debt securities of others, or make any capital expenditure or commitment in excess of $750,000;

Table of Contents

acquire any material asset nor sell, lease, or otherwise irrevocably dispose of any of its material assets or properties, or grant any encumbrance with respect to such assets or properties, in each case, other than in the ordinary course of business;

make, change or revoke any material tax election, file any material amendment to any tax return, adopt or change any accounting method in respect of taxes, change any annual tax accounting period, enter into any tax allocation agreement, tax sharing agreement or tax indemnity agreement, other than commercial contracts entered into in the ordinary course of business with vendors, customers or landlords, enter into any closing agreement with respect to any tax, settle or compromise any claim, notice, audit report or assessment in respect of material taxes, apply for or enter into any ruling from any tax authority with respect to taxes, surrender any right to claim a material tax refund, or consent to any extension or waiver of the statute of limitations period applicable to any material tax claim or assessment;

enter into, amend or terminate any material contract of Immunic (other than in the ordinary course of business);

initiate or settle any legal proceeding or

agree, resolve or commit to do any of the foregoing.

Vital Therapies also agreed that prior to the earlier of termination and the effective time of the Transaction, subject to certain limited exceptions set forth in the Exchange Agreement, without the consent of Immunic, it would not:

declare, accrue, set aside or pay any dividend or make any other distribution in respect of any shares of Vital Therapies capital stock or repurchase, redeem or otherwise reacquire any shares of its capital stock or other securities;

except for the granting of Vital Severance RSUs, sell, issue or grant, encumber or authorize the issuance of any capital stock or other security (except for shares of Vital Therapies common stock issued upon the valid exercise of Vital Therapies options or Vital Therapies warrants outstanding as of the date of the Exchange Agreement), any option, warrant or right to purchase any capital stock or any other security, any equity-based award or instrument convertible into or exchangeable for any capital stock or other security, or any debt securities or any rights to acquire any debt securities;

amend the amended and restated certificate of incorporation, bylaws or other charter or organizational documents of Vital Therapies, or effect or be a party to any merger, consolidation, share exchange, business combination, recapitalization, reclassification of shares, stock split, reverse stock split or similar transaction;

form any subsidiary or acquire any equity interest or other interest in any other entity;

lend money to any person, incur or guarantee any indebtedness for borrowed money, guarantee any debt securities of others or make any material capital expenditure or commitment;

except as necessary to effect the Vital Severance RSUs, adopt, establish or enter into any Vital Therapies employee plan, cause or permit any Vital Therapies employee plan to be amended other than as required by law, including in order to make amendments for the purposes of Section 409A of the Code, subject to prior review and approval (with such approval not to be unreasonably withheld, conditioned or delayed) by Immunic, hire any additional employees or independent contractors or enter into or amend the term of any employment or consulting agreement with any employee or independent contractor other than as reasonably necessary for the completion of the transactions contemplated by the Exchange Agreement, enter into any contract with a labor union or collective bargaining agreement, pay any bonus or make any profit-sharing or similar payment to (other than in the ordinary course of business), or increase the amount of the wages, salary, commissions, fringe benefits or other compensation or remuneration payable to, any of its directors or employees, accelerate the vesting of or

Table of Contents

entitlement to any payment, award, compensation or benefit with respect to any current or former Vital Therapies associate, pay or increase the severance or change of control benefits offered to any Vital Therapies associate, or provide or make any tax-related gross-up payment,

except as otherwise permitted under the Exchange Agreement, enter into any material transaction outside the ordinary course of business;

acquire any material asset nor sell, lease, or otherwise irrevocably dispose of any of its material assets or properties, or grant any encumbrance with respect to such assets or properties;

make, change or revoke any material tax election, file any material amendment to any tax return, adopt or change any accounting method in respect of taxes, change any annual tax accounting period, enter into any tax allocation agreement, tax sharing agreement or tax indemnity agreement, other than commercial contracts entered into in the ordinary course of business with vendors, customers or landlords, enter into any closing agreement with respect to any tax, settle or compromise any claim, notice, audit report or assessment in respect of material taxes, apply for or enter into any ruling from any tax authority with respect to taxes, surrender any right to claim a material tax refund, or consent to any extension or waiver of the statute of limitations period applicable to any material tax claim or assessment;

except as otherwise permitted under the Exchange Agreement, enter into, amend or terminate any Vital Therapies contract (other than in the ordinary course of business);

initiate or settle any legal proceeding;

incur any liabilities or otherwise take any actions other than in the ordinary course of business, other than in connection with the Exchange Agreement or the Transaction; or

agree, resolve or commit to do any of the foregoing.

Non-Solicitation

The Exchange Agreement contains provisions prohibiting Vital Therapies and Immunic from seeking a competing transaction, subject to specified exceptions described below. Under these non-solicitation provisions, each of Vital Therapies and Immunic has agreed that neither it nor its subsidiaries, nor any of its officers, directors, employees, representatives, affiliates, advisors or agents shall directly or indirectly: (i) solicit, initiate, respond to or take any action to facilitate or encourage any inquiries or the communication, making, submission or announcement of any competing proposal or take any action that could reasonably be expected to lead to a competing proposal; (ii) enter into or participate in any discussions or negotiations with any person with respect to any competing proposal; (iii) furnish any information regarding such party to any person in connection with, in response to, relating to or for the purpose of assisting with or facilitating a competing proposal; (iv) approve, endorse or recommend any competing proposal (subject to the terms and conditions of the Exchange Agreement); (v) execute or enter into any letter of intent or similar document or any contract contemplating or otherwise relating to any competing proposal; or (vi) grant any

waiver or release under any confidentiality, standstill or similar agreement (other than to the other party).

However, prior to the approval of the proposals relating to the Transaction set forth in this proxy statement/prospectus at the meeting of the stockholders of Vital Therapies, (i) Vital Therapies may enter into discussions or negotiations with, any person that has made (and not withdrawn) a bona fide, unsolicited, competing proposal, which such party s board of directors determines in good faith, after consultation with its independent financial advisor, if any, and its outside legal counsel, constitutes, or would reasonably be expected to result in, a superior competing proposal, and (ii) thereafter furnish to such person non-public information regarding such party pursuant to an executed confidentiality agreement containing provisions (including nondisclosure provisions, use restrictions, non-solicitation provisions, no hire provisions and standstill provisions) at least as favorable to such party as those contained in the confidentiality agreement existing between Vital Therapies and Immunic, but

in each case of the foregoing clauses (i) and (ii), only if: (A) neither Vital Therapies nor any representative of Vital Therapies has breached its non-solicitation obligations; (B) the board of directors of Vital Therapies determines in good faith based on the advice of outside legal counsel, that the failure to take such action would reasonably be expected to result in a breach of the fiduciary duties of the board of directors of Vital Therapies under applicable laws; (C) at least five business days prior to furnishing any such non-public information to, or entering into discussions with, such person, Vital Therapies gives Immunic written notice of the identity of such person and of Vital Therapies intention to furnish nonpublic information to, or enter into discussions with, such person; and (D) at least five business days prior to furnishing any such non-public information to such person, Vital Therapies furnishes such non-public information to Immunic (to the extent such non-public information has not been previously furnished by such party to Immunic). Without limiting the generality of the foregoing, Vital Therapies has acknowledged and agreed that, in the event any representative of Vital Therapies (whether or not such representative is purporting to act on behalf of such party) takes any action that, if taken by such party, would constitute a breach of the non-solicitation obligations of such party, the taking of such action by such representative shall be deemed to constitute a breach of these non-solicitation obligations of such party for purposes of the Exchange Agreement.

Each party will notify the other party no later than two business days after receipt of any inquiries, discussions, negotiations, proposals or expressions of interest with respect to a competing proposal, and any such notice will be made in writing and will indicate in reasonable detail the terms and conditions of such proposal, inquiry or contact, including price, and the identity of the offeror. Such notifying party will keep the other party informed, on a current basis, of the status and material developments (including any changes to the terms) of such competing proposal.

A competing proposal is any proposal, indication of interest or offer made by a third party contemplating or otherwise relating to any of the following transactions with such party:

- any sale, lease, exchange, transfer, license, acquisition or disposition of any business or assets of a party or any of its subsidiaries that constitute or account for 20% or more of the consolidated book value or the fair market value of the assets of such party or any of its subsidiaries, taken as a whole; provided, however, that (i) any sale or divestiture and/or winding down of the Vital Therapies business conducted prior to the effective date, or (ii) the sale, license or other disposition of any or all of the assets held by Vital Therapies relating to the business conducted prior to effective date is excluded from the foregoing transactions;

- any tender offer or exchange offer that if consummated would result in any person or group of persons beneficially owning 20% or more of the outstanding equity securities of a party to the Exchange Agreement; or

- a merger, reverse merger, consolidation, other business combination or similar transaction involving a party to the Exchange Agreement or any of its subsidiaries;

provided, however, that the Transaction, the other transactions contemplated by the Exchange Agreement and Immunic s concurrent financing are excluded from the foregoing transactions.

A superior competing proposal is any unsolicited bona fide competing proposal (with all references to 20% in the definition of competing proposal being treated as references to 50% for these purposes) made by a third party that was not obtained or made as a direct or indirect result of a breach of (or in violation of) the Exchange Agreement and that the board of directors of Vital Therapies determines, in its reasonable, good faith judgment, after obtaining and taking

into account such matters that its board of directors deems relevant following consultation with its outside legal counsel and financial advisors, if any, (i) is more favorable, from a financial point of view, to the Vital Therapies stockholders, than the terms of the Transaction; and (ii) is reasonably capable of being consummated; provided, however, that any such offer shall not be deemed to be a superior competing proposal if (A) any financing required to consummate the transaction contemplated by such offer is not committed and is not reasonably capable of being obtained by such third party.

Table of Contents

Immunic may terminate the Exchange Agreement if the board of directors, and/or any committee of the board of directors, of Vital Therapies has (each such action, a change of recommendation by the board of directors and/or any committee of the board of directors of Vital Therapies):

- failed to include its approval and recommendation to stockholders relating to the Transaction in this proxy statement/prospectus;
- approved, endorsed or recommended a competing proposal;
- Vital Therapies has failed to hold the Vital Therapies special meeting within 60 days of this proxy statement/prospectus being declared effective (which period may be extended in certain circumstances);
- entered into a definitive agreement for a competing proposal; or
- Vital Therapies has willfully and intentionally breached the non-solicitation obligations in the Exchange Agreement.

If the Exchange Agreement is terminated in connection with these provisions, Vital Therapies has agreed to pay Immunic a fee of $500,000, plus up to $275,000 as reimbursement for reasonable expenses, if the termination is a result of Vital Therapies entering into a definitive agreement to effect a superior competing proposal. See *The Exchange Agreement Termination of the Exchange Agreement and Termination Fee* below for a more complete discussion of the termination fees.

Disclosure Documents

As promptly as practicable following the date of the Exchange Agreement, the parties agreed to prepare and file with the SEC this proxy statement/prospectus and Vital Therapies agreed to prepare and file with the SEC a registration statement on Form S-4, of which this proxy statement/prospectus is a part, in connection with the registration under the Securities Act of the shares of Vital Therapies common stock to be issued pursuant to the Transaction. Vital Therapies agreed to use its commercially reasonable efforts to cause the registration statement to become effective as promptly as practicable, and take all or any action required under any applicable federal and state securities and other laws in connection with the issuance of shares of Vital Therapies common stock pursuant to the Transaction. Each of Vital Therapies and Immunic agreed to use their commercially reasonable efforts to cause the registration statement on Form S-4, of which this proxy statement/prospectus is a part, to comply with the applicable rules and regulations promulgated by the SEC in all material respects. Each of Vital Therapies and Immunic agreed to furnish all information concerning itself and its subsidiaries, as applicable, to the other parties as the other parties may reasonably request in connection with such actions and the preparation of the registration statement on Form S-4 and proxy statement/prospectus. Vital Therapies agreed to mail this proxy statement/prospectus to its stockholders promptly after the registration statement on Form S-4 is declared effective by the SEC.

Meeting of Vital Therapies Stockholders

Vital Therapies is obligated under the Exchange Agreement to call, give notice of and hold a meeting of its stockholders for the purposes of voting on the Proposals. The Vital Therapies stockholders meeting will be held (on a date selected by Vital Therapies in consultation with Immunic) not later than 60 days after the effective date of the registration statement on Form S-4 pursuant to the Exchange Agreement.

Regulatory Approvals

Neither Vital Therapies nor Immunic is required to make any filings or to obtain approvals or clearances from any antitrust regulatory authorities in the United States or other countries to complete the Transaction. In the United States, Vital Therapies must comply with applicable federal and state securities laws and the rules and

Table of Contents

regulations of The Nasdaq Stock Market LLC in connection with the issuance of shares of Vital Therapies common stock in the Transaction, including the filing with the SEC of this proxy statement/prospectus. The Exchange Agreement provides that Immunic and Vital Therapies shall respond as promptly as is practicable in compliance with: (i) any inquiries or requests received from the Federal Trade Commission or the Department of Justice for information or documentation; and (ii) any inquiries or requests received from any other governmental body in connection with antitrust or competition matters.

Indemnification and Insurance for Officers and Directors

Under the Exchange Agreement, from the closing of the Transaction through the sixth anniversary of the closing, Vital Therapies and Immunic agree that all rights to indemnification, exculpation or advancement of expenses now existing in favor of, and all limitations on the personal liability of, each present and former director or officer, of Vital Therapies or Immunic presently provided for in the respective organizational documents of Immunic and Vital Therapies, shall continue to be honored and in full force and effect.

Under the Exchange Agreement, the amended and restated certificate of incorporation and bylaws of Vital Therapies as of the effective date of the Transaction, will contain provisions no less favorable with respect to indemnification, advancement of expenses and exculpation of present and former directors and officers of each of Vital Therapies and Immunic than are presently set forth in the amended and restated certificate of incorporation and bylaws of Vital Therapies and Immunic, as applicable, which provisions shall not be amended, modified or repealed for a period of six years time from the closing of the Transaction in a manner that would adversely affect the rights thereunder of individuals who, at or prior to the closing, were officers or directors of Vital Therapies and Immunic.

The Exchange Agreement also provides that Vital Therapies shall purchase a tail insurance policy in effect for six years from the closing, providing at least the same coverage as the current directors and officers liability insurance policies maintained by Vital Therapies and containing terms and conditions that are not materially less favorable to current and former officers and directors of Vital Therapies.

Additional Agreements

Each of Immunic and Vital Therapies has agreed to, among other things:

- use its commercially reasonable efforts to cause to be taken all actions necessary to consummate the Transaction and any other transaction contemplated by the Exchange Agreement;
- reasonably cooperate with the other parties and provide the other parties with such assistance as may be reasonably requested for the purpose of facilitating the performance by each party of its respective obligations under the Exchange Agreement and to enable Vital Therapies to continue to meet its obligations under the Exchange Agreement following the closing;
- make all filings and other submissions (if any) and give all notices (if any) required to be made and given by such party in connection with the Transaction and any other transaction contemplated by the Exchange Agreement;

use its commercially reasonable efforts to lift any injunction prohibiting, or any other legal bar to, the Transaction and any other transaction contemplated by the Exchange Agreement;

use its commercially reasonable efforts to satisfy the conditions precedent to the consummation of the Exchange Agreement; and

use its reasonable best efforts to cause the Transaction to qualify as a transaction described under Section 351(a) of the Code.

Table of Contents

Nasdaq Stock Market Listing

Vital Therapies common stock currently is listed on The Nasdaq Global Market under the symbol VTL. Vital Therapies has agreed to use commercially reasonable efforts to (i) maintain its existing listing on The Nasdaq Global Market, (ii) prepare and submit to The Nasdaq Stock Market a notification form for the listing of the shares of Vital Therapies common stock to be issued to Immunic shareholders pursuant to the Transaction, (iii) cause such shares to be approved for listing and (iv) as required by Nasdaq Marketplace Rule 5110, file an initial listing application for the company on The Nasdaq Stock Market and to cause such listing application to be approved for listing. In addition, under the Exchange Agreement, each of Immunic s and Vital Therapies obligation to complete the Transaction is subject to the satisfaction or waiver by each of the parties, at or prior to the Transaction, of various conditions, including that the existing shares of Vital Therapies common stock must have been continually listed on The Nasdaq Global Market, Vital Therapies must have caused the shares of Vital Therapies common stock to be issued in the Transaction to be approved for listing on The Nasdaq Stock Market as of the effective time of the Transaction and, to the extent required by Nasdaq Marketplace Rule 5110, the initial listing application for the company must be approved for listing. For further information, see the section entitled *Risk Factors Risks Related to Being a Public Company*. If such application is accepted, Vital Therapies anticipates that its common stock will be listed on The Nasdaq Stock Market following the closing of the Transaction under the trading symbol IMUX.

Conditions to the Completion of the Transaction

The respective obligations of Vital Therapies and Immunic to complete the Transaction and the other transactions contemplated by the Exchange Agreement are subject to the satisfaction or waiver of various conditions that include, in addition to other customary closing conditions, the following:

- the registration statement on Form S-4, of which this proxy statement/prospectus is a part, must have been declared effective by the SEC in accordance with the Securities Act and must not be subject to any stop order or proceeding, or any proceeding threatened by the SEC, seeking a stop order;

- there must not have been issued any temporary restraining order, preliminary or permanent injunction or other order preventing the consummation of the Transaction or the other transactions contemplated by the Exchange Agreement by any court of competent jurisdiction or other governmental entity of competent jurisdiction, and no law, statute, rule, regulation, ruling or decree shall be in effect which has the effect of making the consummation of the Transaction or the other transactions contemplated by the Exchange Agreement illegal and there shall be no proceeding pending or threatened by any court of competent jurisdiction or other governmental entity of competent jurisdiction in which such governmental entity indicates that it intends to conduct any proceeding or take any other action challenging or seeking to prohibit the consummation of the Transaction;

- the holders of a majority of the outstanding Vital Therapies common stock must have approved the Exchange Agreement and the Transaction and the other matters set forth in this proxy statement/prospectus;

- any waiting period applicable to the consummation of the Transaction under the Hart-Scott-Rodino Antitrust Improvements Act of 1976, as amended, or HSR Act, must have expired or been terminated, and there must

not be in effect any voluntary agreement by any party to the Exchange Agreement and the U.S. Federal Trade Commission, the U.S. Department of Justice or any foreign governmental body, pursuant to which such party has agreed not to consummate the Transaction for any period of time; and

the existing shares of Vital Therapies common stock must have been continually listed on The Nasdaq Global Market through the closing of the Transaction, the shares of Vital Therapies common stock to be issued in the Transaction must be approved for listing on The Nasdaq Stock Market(subject to official notice of issuance) as of the effective time of the Transaction, and, to the extent required by Nasdaq Marketplace Rule 5110, the initial listing application of Immunic has been approved for listing.

Table of Contents

In addition, each of Immunic s and Vital Therapies obligation to complete the Transaction is further subject to the satisfaction or waiver by that party of the following additional conditions:

- the representations and warranties regarding capitalization matters of the other party in the Exchange Agreement must be true and correct in all but de minimis respects on the date of the Exchange Agreement and on the closing date of the Transaction with the same force and effect as if made on the closing date, or, if such representations and warranties address matters as of a particular date, then as of that particular date; except as affected by the Immunic concurrent financing and the issuance of the shares thereunder and the Immunic Exit Bonus Agreements and the issuance of the shares thereunder;

- all other representations and warranties of the other party in the Exchange Agreement must be true and correct on the date of the Exchange Agreement and on the closing date of the Transaction with the same force and effect as if made on the date on which the Transaction is to be completed or, if such representations and warranties address matters as of a particular date, then as of that particular date, except where the failure of these representations and warranties to be true and correct would not have a material adverse effect on the other party;

- the other party to the Exchange Agreement must have performed or complied with in all material respects all covenants and obligations in the Exchange Agreement required to be performed or complied with by it on or before the closing of the Transaction;

- the other party to the Exchange Agreement has not experienced a material adverse effect; and

- the other party must have delivered certain certificates and other documents required under the Exchange Agreement for the closing of the Transaction.

In addition, the obligation of Vital Therapies to complete the Transaction is further subject to the satisfaction or waiver of the following conditions:

- Immunic must have terminated certain investor agreements;

- Immunic s concurrent financing must have been consummated and Immunic must have received the proceeds of the concurrent financing on the terms and conditions set forth in the Subscription Agreement relating to the concurrent financing;

- Immunic s officers and directors and their affiliates, who are not current shareholders of Immunic, shall have executed and delivered to Vital Therapies a lock-up agreement to agree to the lock-up covenants set forth in the Exchange Agreement; and

Immunic must have delivered a certificate setting forth the allocation of the Transaction consideration to its securityholders.

In addition, the obligation of Immunic to complete the Transaction is further subject to the satisfaction or waiver of the following conditions:

Vital Therapies must have caused the board of directors and the officers of Vital Therapies to be constituted as set forth in the Exchange Agreement;

Vital Therapies must have effected the reverse stock split described in Proposal 4;

Vital Therapies officers and directors and their affiliates shall have executed and delivered to Immunic a lock-up agreement to agree to the lock-up covenants set forth in the Exchange Agreement;

Vital Therapies must have filed its Annual Report on Form 10-K for the year ended December 31, 2018;

Vital Therapies must have delivered a certificate setting forth and certifying the number of outstanding shares of its capital stock.

Table of Contents

Termination of the Exchange Agreement and Termination Fee

The Exchange Agreement may be terminated at any time before the closing of the Transaction, whether before or after the required stockholder approvals to complete the Transaction have been obtained, as set forth below:

(1) By mutual agreement of Immunic and Vital Therapies;

(2) By either Immunic or Vital Therapies if the Transaction has not closed by May 30, 2019 (other than in cases in which such failure to close is due to a breach by the party wishing to terminate), which date may be extended in certain circumstances;

(3) By either Immunic or Vital Therapies if there is any law or order that prohibits the completion of the Transaction;

(4) By either Immunic or Vital Therapies if the Vital Therapies stockholders meeting has been held and completed and the required proposals have not been approved (other than in cases in which such failure has been caused by Vital Therapies action or failure to act and such action or failure to act is a material breach by Vital Therapies);

(5) By Immunic (any time prior to obtaining the required approval from Vital Therapies stockholders) if (i) Vital Therapies failed to include its board recommendation of the proposals in this proxy statement/prospectus, (ii) the Vital Therapies board has approved, endorsed or recommended any competing proposal, (iii) Vital Therapies has failed to hold the Vital Therapies special meeting within 60 days of this proxy statement/prospectus being declared effective (which period may be extended in certain circumstances), (iv) Vital Therapies has entered into any definitive agreement for a competing proposal or (v) Vital Therapies has willfully and intentionally breached the non-solicitation obligations in the Exchange Agreement;

(6) By Immunic if Vital Therapies breaches any of its representations, warranties, covenants or agreements in the Exchange Agreement that would prevent Vital Therapies from satisfying its closing conditions (with a 15 calendar day cure period);

(7) By Vital Therapies if Immunic breaches any of its representations, warranties, covenants or agreements in the Exchange Agreement that would prevent Immunic from satisfying its closing conditions (with a 15 calendar day cure period);

(8) By Vital Therapies (any time prior to obtaining the required from Vital Therapies stockholders), if the board of directors of Vital Therapies authorizes Vital Therapies to enter into a superior competing proposal; provided, however, that Vital Therapies shall not enter into a superior competing proposal unless (i) Vital Therapies has complied with its non-solicitation obligations in the Exchange Agreement; (ii) Vital Therapies

has complied with its fiduciary duties and notice obligations in the Exchange Agreement; (iii) Vital concurrently pays to Immunic a fee of $500,000, plus up to $275,000 as reimbursement for reasonable expenses; and (iv) a copy of the execution version of such superior competing proposal and all related agreements, exhibits, schedules and other documents has been delivered to Immunic; or

(9) By Vital Therapies if all closing conditions have been satisfied (or if Vital Therapies is willing to waive any conditions that have not been satisfied) other than the consummation of Immunic s concurrent financing and Vital Therapies is prepared to consummate the closing of the Transaction upon consummation of Immunic s concurrent financing, and Immunic s concurrent financing is not consummated within ten calendar days after notice from Vital Therapies to Immunic of the foregoing.

Immunic is required to pay Vital Therapies a termination fee of $2,000,000 if the Exchange Agreement is terminated by Vital Therapies pursuant to clause 9 above.

Immunic is also required to pay Vital Therapies third-party expense reimbursements of up to $275,000 if the Exchange Agreement is terminated by Vital Therapies pursuant to clauses 7 or 9 above, or if Vital Therapies fails

Table of Contents

to consummate the transactions to be consummated at the closing solely as a result of an Immunic material adverse effect.

Vital Therapies is required to pay Immunic a termination fee of $500,000, if the Exchange Agreement is terminated by Immunic or Vital Therapies, as applicable, pursuant to clauses 4 or 5 above (and in the case of clause 4, within 12 months after the date of such termination, Vital Therapies consummates or enters into a definitive agreement with respect to a merger, change of control transaction, sale of 50% or more of its assets, or similar transaction or consummates such a transaction).

Vital Therapies is also required to pay Immunic third-party expense reimbursements of up to $275,000 if the Exchange Agreement is terminated by Immunic or Vital Therapies, as applicable, pursuant to clauses 4, 5, 6 or 8 above or if Immunic fails to consummate the transactions to be consummated at the closing solely as a result of a Vital Therapies material adverse effect.

Any termination of the Exchange Agreement shall not relieve any party for its fraud or from liability for any willful and material breach of any representation, warranty, covenant, obligation or other provision contained in the Exchange Agreement.

Amendment

The Exchange Agreement may be amended by an instrument in writing signed on behalf of each of Vital Therapies and Immunic with the approval of the respective boards of directors of Vital Therapies and Immunic at any time, except that (i) after the Exchange Agreement has been adopted by the stockholders of Vital Therapies, no amendment which by law requires further approval by the stockholders of Vital Therapies shall be made without such further approval and (ii) no representation, warranty or covenant in the Exchange Agreement with respect to a shareholder of Immunic may be amended unless such amendment applies to all Immunic shareholders in the same fashion and the parties obtain the approval of such amendment from the Immunic shareholders who own a majority of the then outstanding Immunic common and preferred shares.

Expenses

The Exchange Agreement provides all fees and expenses incurred in connection with the Exchange Agreement and the transactions contemplated thereby shall be paid by the party incurring such expenses, except as described above under *The Exchange Agreement Termination of the Exchange Agreement and Termination Fee* and except that Immunic and Vital Therapies shall share equally in any fees and expenses incurred in relation to the filing of the Nasdaq listing application, by engagement of the proxy soliciting firm and the exchange agent and in relation to printing and filing with the SEC of this proxy statement/prospectus. In addition, 50% of the amounts paid or payable by Vital Therapies related to the audit of its financial statements for the year ending December 31, 2018, as well for the preparation of its Annual Report on Form 10-K for the year ended December 31, 2018, and, if applicable, its Quarterly Report on Form 10-Q for the quarter ended March 31, 2019, will be credited to Vital Therapies in connection with the calculation of its net cash.

Directors and Officers of Vital Therapies Following the Transaction

Immediately following the Transaction, the board of directors of Vital Therapies is expected to consist of five members, including four members of the current Immunic board, Dr. Daniel Vitt, Chief Executive Officer of Immunic, Dr. Jörg Neermann, Life Science Partners, Dr. Vincent Ossipow, Omega Funds and Jan van den Bossche, Fund+, and Dr. Duane Nash, Chief Executive Officer, President and a director of Vital Therapies.

Effective as of the closing of the Transaction, Vital Therapies shall appoint the following persons as officers of Vital Therapies: Dr. Daniel Vitt as President and Chief Executive Officer, Dr. Manfred Gröppel as Chief Operating Officer, Dr. Andreas Muehler as Chief Medical Officer and Dr. Hella Kohlhof as Chief Science Officer.

Table of Contents

Amendments to the Amended and Restated Certificate of Incorporation of Vital Therapies

Vital Therapies agreed to submit to its stockholders amendments to its amended and restated certificate of incorporation to, among other things:

- change the name of the company from Vital Therapies, Inc. to Immunic, Inc. ; and
- effect a reverse stock split of the outstanding shares of Vital Therapies common stock.

Each amendment to Vital Therapies amended and restated certificate of incorporation is subject to and conditioned upon the approval and completion of the Transaction.

Special Meeting of Vital Therapies Stockholders

Vital Therapies is obligated under the Exchange Agreement to call, give notice of and hold a special meeting of its stockholders for the purpose of considering the issuance of shares of Vital Therapies common stock, the Transaction and the stockholder proposals discussed herein.

Table of Contents

AGREEMENTS RELATED TO THE TRANSACTION

Subscription Agreement

On January 6, 2019, immediately prior to the execution of the Exchange Agreement, Immunic entered into the Subscription Agreement, with all current shareholders of Immunic as well as certain of Immunic s executive officers and directors, namely Dr. Daniel Vitt, Dr. Andreas Muehler, Dr. Hella Kohlhof, and Dr. Manfred Gröppel, pursuant to which the Immunic shareholders made commitments, subject to the closing of the Transaction, to invest an aggregate amount of 26,677,176 (approximately $30 million) in Immunic immediately prior to the consummation of the Transaction. The Subscription Agreement provides that, in order to effect this concurrent investment of 26,677,176 and as part of the closing of the Transaction, Immunic s registered share capital shall be increased from 362,997 by 156,920 to 519,917 in return for cash contributions. Prior to the closing of the Transaction, all existing preferred shares in Immunic shall be converted into common shares, and that the Immunic shareholders who subscribe to the new common shares shall make payments into the capital reserves of the Company of 26,520,256 in aggregate.

Upon the consummation of the Transaction, the Immunic common shares issued pursuant to the Subscription Agreement will automatically be exchanged for a number of shares of Vital Therapies common stock based on the Exchange Ratio.

Furthermore, the Subscription Agreement and the consummation of the financing contemplated by the Subscription Agreement, is subject to the following dissolving condition: should Immunic s board of directors inform a certain representative of the parties to the Subscription Agreement that the closing of the Transaction has not occurred by June 30, 2019, the Subscription Agreement shall be of no further force or effect and all rights and obligations under the Subscription Agreement shall cease to exist and any and all actions thereunder shall be unwound.

The funds provided by the Immunic shareholder IBG Risikokapitalfonds II GmbH & Co. KG (IBG) will need to be used for certain projects connected to Saxony-Anhalt as set out in the Subscription Agreement and its exhibits. Other than this, management will have broad discretion as to the use of the proceeds raised pursuant to the Subscription Agreement.

Lock-up Agreements

The shareholders of Immunic have agreed to lock-up covenants (and the executive officers and directors of Immunic are required to join in these covenants as a condition to closing), pursuant to which such persons have agreed not to, except in certain circumstances, offer, pledge, sell, contract to sell, sell any option to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, or otherwise transfer or dispose of, any Vital Therapies securities or shares of Vital Therapies common stock, including, as applicable, shares received in the Transaction, until 180 days after the closing date of the Transaction. The Immunic securityholders who have agreed to lock-up agreements owned, as of December 31, 2018, in the aggregate, 100% of the outstanding Immunic common and preferred shares.

Vital Therapies officers and directors are required to execute lock-up agreements prior to the closing of the Transaction, pursuant to which such Vital Therapies officers and directors will agree not to, except in certain circumstances, offer, pledge, sell, contract to sell, sell any option to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, or otherwise transfer or dispose of, any Vital Therapies securities or shares of Vital Therapies common stock, including, as applicable, shares issuable upon exercise of certain warrants and options, until 180 days after the closing date of the Transaction.

176

Table of Contents

Current directors and officers of Vital Therapies are expected to execute lock-up agreements, and as of January 15, 2019, owned, in the aggregate, less than 1% of the outstanding common stock of Vital Therapies entitled to vote at the special meeting.

Table of Contents

MATTERS BEING SUBMITTED TO A VOTE OF THE STOCKHOLDERS OF VITAL THERAPIES

Proposal 1: Approval of the Issuance of Common Stock in the Transaction

At the special meeting, stockholders will be asked to approve the issuance of Vital Therapies common stock pursuant to the Exchange Agreement. Immediately following the Transaction, (a) current Vital Therapies stockholders are expected to own approximately 11% of the common stock of the company and (b) current Immunic shareholders are expected to own approximately 89% of the common stock of the company, on a fully-diluted basis, in each case calculated on a pro forma basis after giving effect to (i) the issuance of common shares by Immunic immediately prior to the closing of the Transaction pursuant to the terms of the Subscription Agreement, and (ii) the Transaction. These ownership percentages are estimates and are subject to adjustment.

The terms of, reasons for and other aspects of the Exchange Agreement, the Transaction and the issuance of Vital Therapies common stock pursuant to the Exchange Agreement are described in detail in the sections entitled *The Exchange Agreement* and *The Transaction*. A copy of the Exchange Agreement is attached as *Annex A* to this proxy statement/prospectus.

Required Vote

The affirmative vote of the holders of a majority of the shares of Vital Therapies common stock present in person or represented by proxy at the special meeting is required to approve Proposal 1. **Each of Proposals 1, 2, 3 and 4 are conditioned upon each other. Therefore, the Transaction cannot be consummated without the approval of Proposals 1, 2, 3, and 4.**

Recommendation of Board of Directors

THE BOARD OF DIRECTORS RECOMMENDS THAT STOCKHOLDERS VOTE FOR PROPOSAL 1 TO APPROVE THE ISSUANCE OF VITAL THERAPIES COMMON STOCK PURSUANT TO THE EXCHANGE AGREEMENT.

Proposal 2: Approval of the Change of Control Resulting from the Transaction

At the special meeting, stockholders will be asked to approve the change of control resulting from the Transaction. Immediately following the Transaction (a) current Vital Therapies stockholders are expected to own approximately 11% of the common stock of the company and (b) current Immunic shareholders are expected to own approximately 89% of the common stock of the company, on a fully-diluted basis, in each case calculated on a pro forma basis after giving effect to (i) the issuance of common shares by Immunic immediately prior to the closing of the Transaction pursuant to the terms of the Subscription Agreement, and (ii) the Transaction. These ownership percentages are estimates and are subject to adjustment.

The terms of, reasons for and other aspects of the Exchange Agreement, the Transaction and the change of control resulting from the Transaction are described in detail in the sections entitled *The Exchange Agreement* and *The Transaction*.

Required Vote

The affirmative vote of the holders of a majority of the shares of Vital Therapies common stock present in person or represented by proxy at the special meeting is required to approve Proposal 2. **Each of Proposals 1, 2, 3 and 4 are**

conditioned upon each other. Therefore, the Transaction cannot be consummated without the approval of Proposals 1, 2, 3 and 4.

Recommendation of Board of Directors

THE BOARD OF DIRECTORS RECOMMENDS THAT STOCKHOLDERS VOTE FOR PROPOSAL 2 TO APPROVE THE CHANGE IN CONTROL RESULTING FROM THE TRANSACTION.

Table of Contents

Proposal 3: Approval of Name Change

At the special meeting, holders of Vital Therapies common stock will be asked to approve the amendment to the amended and restated certificate of incorporation of Vital Therapies to change the name of the corporation from Vital Therapies, Inc. to Immunic, Inc. by filing an amendment to the amended and restated certificate of incorporation at the closing of the Transaction. A copy of the proposed amendment to the amended and restated certificate of incorporation is attached as *Annex B* to this proxy statement/prospectus. The primary reason for the corporate name change is that management believes this will allow for brand recognition of Immunic product candidates and product candidate pipeline following the consummation of the Transaction.

Required Vote

The affirmative vote of the holders of a majority of the outstanding shares of common stock entitled to vote on the record date for the special meeting is required for approval of Proposal 3. **Each of Proposals 1, 2, 3 and 4 are conditioned upon each other. Therefore, the Transaction cannot be consummated without the approval of Proposals 1, 2, 3 and 4.**

Recommendation of Board of Directors

THE BOARD OF DIRECTORS RECOMMENDS THAT STOCKHOLDERS VOTE FOR PROPOSAL 3 TO APPROVE THE NAME CHANGE.

Proposal 4: Approval of the Amendment to the Amended and Restated Certificate of Incorporation of Vital Therapies Effecting the Reverse Stock Split.

General

At the special meeting, stockholders will be asked to approve an amendment to the amended and restated certificate of incorporation effecting the reverse stock split of all issued and outstanding shares of Vital Therapies common stock, which will reduce the number of shares of outstanding Vital Therapies common stock in accordance with a ratio to be determined by the board of directors within a range of one new share for every 30 to 60 shares of outstanding common stock (or any number in between). A copy of the proposed amendment to the amended and restated certificate of incorporation is attached as *Annex C* to this proxy statement/prospectus. This proposal is referred to as the reverse stock split proposal. The board of directors has declared such proposed amendment to be advisable and has unanimously recommended that this proposed amendment be presented to stockholders for approval.

Assuming the stockholders approve the proposal, the board of directors will have the sole discretion pursuant to Section 242(c) of the Delaware General Corporation Law as it determines to be in the best interest of Vital Therapies and its stockholders, both to select the specific split ratio within the designated range of 30 to 60 shares (or any number in between) and also to decide not to proceed to effect a reverse stock split or instead to abandon the proposed certificate of amendment altogether. If a certificate of amendment is filed with the Secretary of State of the State of Delaware, the certificate of amendment to the amended and restated certificate of incorporation will affect the reverse stock split by reducing the outstanding number of shares of common stock by the ratio to be determined by the board of directors, but will not increase the par value of the common stock, and will not change the number of shares of common stock authorized for issuance. The board of directors decision to effect a reverse stock split is based on a number of factors, including market conditions, existing and expected trading prices for the common stock and the applicable listing requirements of The Nasdaq Stock Market.

Upon the effectiveness of the proposed amendment effecting the reverse stock split and in accordance with a ratio to be determined by the board of directors, or the reverse split effective time, within a range of 30 to 60 shares (or any number in between) of common stock outstanding immediately prior to the reverse split effective

Table of Contents

time will be combined and reclassified into one share of Vital Therapies common stock. The actions taken in connection with the reverse stock split will reduce the number of outstanding shares of common stock immediately prior to the effective time of the Transaction.

Purpose

The board of directors believes that a reverse stock split is desirable for the following reasons:

- the board of directors believes effecting the reverse stock split may be an effective means of raising the per share price of the common stock to comply with the listing requirements of Nasdaq; and
- the board of directors believes that a higher stock price may help generate investor interest in the common stock.

Our common stock is currently listed on The Nasdaq Global Market. Immunic intends to file an initial listing application with Nasdaq to seek listing for the company on The Nasdaq Stock Market upon the closing of the Transaction. According to the applicable rules and regulations of The Nasdaq Stock Market, an issuer must apply for initial listing following a transaction in which the issuer combines with a non-Nasdaq listed entity resulting in a change of control of the issuer and potentially allowing the non-Nasdaq listed entity to obtain a Nasdaq listing. Furthermore, the listing standards of The Nasdaq Stock Market will require Vital Therapies to have, among other things, a $4.00 per share minimum bid price upon the closing of the Transaction. Vital Therapies board of directors expects that a reverse stock split of Vital Therapies common stock will increase the market price of Vital Therapies common stock so that Vital Therapies is able to maintain compliance with the relevant listing requirements of The Nasdaq Stock Market upon completion of the Transaction.

Additionally, on October 25, 2018, Vital Therapies received a letter from the listing qualifications department staff of The Nasdaq Stock Market notifying Vital Therapies stating that the company was not in compliance with Nasdaq Listing Rule 5450(a)(1), or the minimum bid price rule, because the company s common stock failed to maintain a minimum closing bid price of $1.00 for 30 consecutive business days. Vital Therapies was provided 180 calendar days, or until April 23, 2019, to regain compliance with the minimum bid price rule (i.e., by Vital Therapies common stock maintaining a closing bid price of $1.00 per share or more for a minimum of ten consecutive trading days during the grace period, or such longer period of time as the Nasdaq staff may require). The board of directors believes that maintaining the listing of Vital Therapies common stock on The Nasdaq Stock Market is in the best interests of Vital Therapies and its stockholders. If Vital Therapies common stock were delisted from The Nasdaq Stock Market, Vital Therapies board believes that the liquidity in the trading market for the common stock could be significantly decreased, which could reduce the trading price, and that the Transaction would likely be terminated by Immunic.

On February [ ], 2019, the closing price of Vital Therapies common stock was $[ ] per share. The board of directors also believes that an increase in the market price of the common stock expected as a result of implementing a reverse stock split will improve the marketability and liquidity of our common stock and will encourage interest and trading in Vital Therapies common stock. Because of the trading volatility often associated with low-priced stocks, many brokerage firms and institutional investors have internal policies and practices that either prohibit them from investing in low-priced stocks or tend to discourage individual brokers from recommending low-priced stocks to their customers. Some of those policies and practices may function to make the processing of trades in low-priced stocks economically unattractive to brokers. Moreover, investors may also be dissuaded from purchasing lower priced stock

because the brokerage commissions, as a percentage of the total transaction, tend to be higher. The board of directors believes that the anticipated higher market price expected to result from a reverse stock split will reduce, to some extent, the negative effects of the policies and practices of institutional investors and brokerage firms described above on the liquidity and marketability of the company s common stock.

Vital Therapies cannot predict whether the reverse stock split will increase the market price of Vital Therapies common stock. Furthermore, there can be no assurance that: (i) the market price per share following the reverse

Table of Contents

stock split would rise in proportion to the reduction in the number of shares of Vital Therapies common stock outstanding due to the reverse stock split; (ii) the market price per share following the reverse stock split would meet the minimum bid price required for continued listing on The Nasdaq Stock Market or, if met, that the price would remain above the minimum for a sustained period of time; (iii) Vital Therapies would otherwise meet the requirements of The Nasdaq Stock Market for listing on The Nasdaq Stock Market even if the per share market price of Vital Therapies common stock after the reverse stock split meets the required minimum price; (iv) the reverse stock split would result in a per share price that would attract brokers and investors who do not trade in lower-priced stock; and (v) the liquidity of Vital Therapies common stock would not be harmed by the reduced number of shares outstanding after the reverse stock split.

The market price of Vital Therapies common stock will also be based on Vital Therapies performance and other factors, some of which are unrelated to the number of shares outstanding. If the reverse stock split is effected and the market price of Vital Therapies common stock declines, the percentage decline as an absolute number and as a percentage of Vital Therapies overall market capitalization may be greater than would occur in the absence of the proposed reverse stock split.

Board Discretion to Effect the Reverse Stock Split

If the reverse stock split proposal is approved by the stockholders, the proposed amendment will be effected, if at all, only upon a determination by the board of directors that a reverse stock split within a range of one for every 30 to 60 shares (or any number in between) of Vital Therapies common stock outstanding remains in the best interests of the company and its stockholders based on the factors described above. Notwithstanding stockholder approval of the reverse stock split proposal, the board of directors may, in its sole discretion, abandon the proposed amendment and determine prior to the effectiveness of any filing with the Secretary of State of the State of Delaware not to effect the reverse stock split of Vital Therapies common stock, as permitted under Section 242(c) of the Delaware General Corporation Law.

The ratio of the reverse stock split, if approved and implemented, will be at a ratio to be determined by the board of directors in consultation with Immunic. In determining the reverse stock split ratio, the board of directors will consider numerous factors including:

- the historical and projected performance of Vital Therapies common stock;
- prevailing market conditions;
- general economic and other related conditions prevailing in our industry and in the marketplace;
- the projected impact of the selected reverse stock split ratio on trading liquidity in Vital Therapies common stock;
- our ability to comply with Nasdaq Stock Market listing requirements, both with respect to the proposed Transaction with Immunic and the current minimum bid price deficiency;

our capitalization (including the number of shares of common stock issued and outstanding);

the prevailing trading price for our common stock and the trading volume thereof; and

potential devaluation of our market capitalization as a result of a reverse stock split.

The purpose of asking for authorization to implement the reverse stock split at a ratio to be determined by the board of directors, as opposed to a ratio fixed in advance, is to give the board the flexibility to take into account then-current market conditions and changes in the price of our common stock and to respond to other developments that may be deemed relevant when considering the appropriate ratio.

Principal Effects of the Reverse Stock Split

The proposed form of amendment to the amended and restated certificate of incorporation of Vital Therapies effecting the reverse stock split is set forth in *Annex C* to this proxy statement/prospectus.

Table of Contents

If the reverse split is effected, it will be effected simultaneously for all outstanding shares of Vital Therapies common stock and the reverse stock split ratio will be the same for all shares of Vital Therapies common stock. The reverse stock split will affect all stockholders uniformly and will not affect any stockholder s percentage ownership interests in Vital Therapies, except to the extent that the reverse stock split results in any of stockholders owning a fractional share. Common stock combined pursuant to the reverse stock split will remain fully paid and nonassessable. The number of stockholders of record will not be affected by the proposed reverse stock split (except to the extent that any stockholders holds only a fractional share interest after the application of the reverse stock split and receives cash for such interest). Vital Therapies is not proposing the reverse stock split as the first step in a going private transaction. The reverse stock split will not affect the number of authorized shares of Vital Therapies common stock, which will continue to be authorized pursuant to the amended and restated certificate of incorporation of Vital Therapies. Because the number of authorized shares of common stock will not be proportionally reduced by the reverse stock split, one of the effects of the reverse stock split will be to effectively increase the proportion of authorized shares that are unissued relative to those that are issued. This could result in management being able to issue more shares without further stockholder approval, unless required by applicable law.

If the reverse stock split is implemented, the number of shares of common stock subject to outstanding options and warrants issued by Vital Therapies, and the number of shares reserved for future issuance under our stock incentive plans, will be reduced by the same ratio as the reduction in the outstanding shares. Correspondingly, the exercise price for individual outstanding options and warrants will, on a per share basis, be proportionally increased (i.e., the aggregate exercise price for all outstanding options and warrants will be unaffected, but following a reverse stock split such exercise price will apply to a reduced number of shares).

Vital Therapies has no current plans, arrangements or understandings to issue shares that will be available and unreserved after the completion of the Transaction and the other transactions described in this proxy statement/prospectus, other than in connection with the Transaction and to satisfy obligations under the company s warrants and employee stock options and restricted stock unit awards from time to time as such warrants, options and restricted stock units are exercised or delivered.

Vital Therapies will continue to be subject to the periodic reporting requirements of the Exchange Act after the reverse stock split. Vital Therapies common stock will continue to be listed on The Nasdaq Global Market under the symbol VTL. After completion of the Transaction, Vital Therapies expects to be renamed Immunic, Inc. and to trade on The Nasdaq Stock Market under the symbol IMUX.

Procedure for Effecting Reverse Stock Split and Exchange of Stock Certificates

If the certificate of amendment is approved by stockholders, Vital Therapies will file the certificate of amendment with the Secretary of State of the State of Delaware at such time as the board of directors may determine to be the appropriate effective time for the reverse stock split. The reverse split would become effective immediately upon filing of the certificate of amendment on the date of filing of the certificate of amendment. Vital Therapies may delay effecting the reverse stock split without resoliciting stockholder approval.

After the amendment becomes effective, shares of Vital Therapies common stock will have a new Committee on Uniform Securities Identification Procedures (CUSIP) number, which is a number used to identify our common stock. Beginning at the reverse split effective time, each book entry or certificate representing pre-split shares will be deemed for all corporate purposes to evidence ownership of post-split shares. Except as explained below with respect to fractional shares, at the reverse split effective time, shares of Vital Therapies common stock issued and outstanding immediately prior to the reverse split effective time will be combined and reclassified, automatically and without any action on the part of the stockholders, into a lesser number of new shares of Vital Therapies common stock in

accordance with the reverse stock split ratio within a range of 30 to 60 shares of Vital Therapies common stock (or any number in between) for every one outstanding share of Vital Therapies common stock.

Table of Contents

As soon as practicable after the effective date of the reverse split, stockholders will be notified that the reverse stock split has been effected. Holders of shares in book-entry form with our transfer agent do not need to take any action to receive post-reverse stock split shares. If a stockholder is entitled to post-reverse stock split shares, a transaction statement will automatically be sent to the stockholder s address of record indicating the number of shares of Vital Therapies common stock held following the reverse stock split.

Fractional Shares

No fractional shares will be issued in connection with the reverse stock split. Stockholders of record who otherwise would be entitled to receive fractional shares because they hold a number of pre-split shares not evenly divisible by the number of pre-split shares for which each post-split share is to be exchanged will be entitled to a cash payment in lieu thereof at a price equal to the fraction to which the stockholder would otherwise be entitled multiplied by the closing price of the common stock (on a post-reverse-split basis) on The Nasdaq Global Market on the last trading day prior to the effective date of the reverse split or, if such price is not available, the average of the last bid and asked prices of the common stock on such day or other price determined by the board of directors. The ownership of a fractional share will not give the holder thereof any voting, dividend or other rights except to receive payment therefor as described herein.

Stockholders should be aware that, under the escheat laws of the various jurisdictions where stockholders reside, where Vital Therapies is domiciled, and where the funds will be deposited, sums due for fractional interests that are not timely claimed after the effective date of the reverse stock split may be required to be paid to the designated agent for each such jurisdiction, unless correspondence has been received by Vital Therapies or the exchange agent concerning ownership of such funds within the time permitted in such jurisdiction. Thereafter, stockholders otherwise entitled to receive such funds will have to seek to obtain them directly from the state to which they were paid.

Accounting Consequences

The par value per share of Vital Therapies common stock will remain unchanged at $0.0001 per share after the reverse stock split. As a result, at the effective time of the reverse stock split, the stated capital on our balance sheet attributable to our common stock will be reduced proportionately based on the reverse stock split ratio, from its present amount, and the additional paid-in capital account will be increased for the amount by which the stated capital is reduced. After the reverse stock split (and disregarding the impact of shares of Vital Therapies common stock issued in the Transaction), net income or loss per share, and other per share amounts will be increased because there will be fewer shares of common stock outstanding. In future financial statements, net loss per share and other per share amounts for periods ending before the reverse stock split will be restated to give retroactive effect to the reverse stock split.

Potential Anti-Takeover Effect

Although the increased proportion of unissued authorized shares to issued shares could, under certain circumstances, have an anti-takeover effect (for example, by permitting issuances that would dilute the stock ownership of a person seeking to effect a change in the composition of the board of directors or contemplating a tender offer or other transaction for the combination of Vital Therapies with another company), the reverse stock split proposal is not being proposed in response to any effort of which Vital Therapies is aware to accumulate shares of Vital Therapies common stock or obtain control of Vital Therapies, nor is it part of a plan by management to recommend a series of similar amendments to Vital Therapies board of directors and stockholders, other than to complete the Transaction with Immunic. Other than the reverse stock split proposal and the other proposals set forth in this proxy statement/prospectus pertaining to the Transaction, the board of directors does not currently contemplate

recommending the adoption of any other actions that could be construed to affect the ability of third parties to take over or change control of Vital Therapies.

Table of Contents

Appraisal Rights

Under the Delaware General Corporation Law, Vital Therapies stockholders are not entitled to appraisal rights with respect to the reverse stock split.

Material U.S. Federal Income Tax Consequences of the Reverse Stock Split

The following is a discussion of material U.S. federal income tax consequences of the reverse stock split to holders of Vital Therapies common stock. The effects of other U.S. federal tax laws, such as estate and gift tax laws, and any applicable state, local, or foreign tax laws are not discussed. This discussion is based on the Code, U.S. Treasury Regulations promulgated thereunder, judicial decisions, and published rulings and administrative pronouncements of the IRS each as in effect as of the date of this proxy statement/prospectus. These authorities are subject to differing interpretations or change. Any such change, which may or may not be retroactive, could alter the tax consequences to holders of Vital Therapies common stock.

This discussion does not address all U.S. federal income tax consequences relevant to the particular circumstances of a Vital Therapies common stockholder. In addition, it does not address consequences relevant to holders of Vital Therapies common stock that are subject to particular rules, including, without limitation:

- persons subject to the alternative minimum tax;
- persons whose functional currency is not the U.S. dollar;
- persons holding Immunic common or preferred stock as part of a hedge, straddle, or other risk reduction strategy or as part of a conversion transaction or other integrated investment;
- banks, insurance companies, and other financial institutions;
- real estate investment trusts and regulated investment companies;
- brokers, dealers, and traders in securities;
- tax-exempt organizations and governmental organizations;
- persons deemed to sell Immunic common shares under the constructive sale provisions of the Code;
- persons who hold or receive Immunic common shares pursuant to the exercise of any employee stock options or otherwise as compensation;

persons who hold Immunic common shares that is section 306 stock within the meaning of Section 306(c) of the Code;

persons required to accelerate the recognition of any item of gross income for U.S. federal income tax purposes with respect to Immunic common shares as a result of such item being taken into account in an applicable financial statement;

persons holding Immunic common shares who exercise dissenters rights; and

tax-qualified retirement plans.

This discussion is limited to holders of Vital Therapies common stock that are Vital Therapies U.S. Holders. For purposes of this discussion, a Vital Therapies U.S. Holder is a beneficial owner of Vital Therapies common stock that, for U.S. federal income tax purposes, is or is treated as:

an individual who is a citizen or resident of the United States;

a corporation (or other entity taxable as a corporation for U.S. federal income tax purposes) created or organized in or under the laws of the United States, any state thereof, or the District of Columbia;

an estate, the income of which is subject to U.S. federal income taxation regardless of its source; or

Table of Contents

a trust if either (i) a court within the United States is able to exercise primary supervision over the administration of such trust and one or more United States persons (within the meaning of Section 7701(a)(30) of the Code) are authorized or have the authority to control all substantial decisions of such trust, or (ii) the trust was in existence on August 20, 1996 and has a valid election in effect under applicable Treasury Regulations to be treated as a United States person for U.S. federal income tax purposes.

If an entity treated as a partnership for U.S. federal income tax purposes holds Vital Therapies common stock, the tax treatment of a partner in the partnership will depend on the status of the partner, the activities of the partnership and certain determinations made at the partner level. If you are a partnership or a partner of a partnership you should consult your tax advisor regarding the tax consequences to you.

In addition, the following discussion does not address (i) any U.S. federal non-income tax consequences of the reverse stock split, including estate, gift or other tax consequences, (ii) any state, local or non-U.S. tax law consequences of the reverse stock split, (iii) the Medicare contribution tax on net investment income or the alternative minimum tax, (iv) the tax consequences of transactions effectuated before, after or at the same time as the reverse stock split (whether or not they are in connection with the reverse stock split), and (v) the tax consequences to holders of options, warrants or similar rights to purchase Vital Therapies common stock.

IN LIGHT OF THE FOREGOING HOLDERS OF VITAL THERAPIES COMMON STOCK SHOULD CONSULT THEIR OWN TAX ADVISORS REGARDING THE TAX CONSEQUENCES TO THEM OF THE REVERSE STOCK SPLIT, INCLUDING THE APPLICABLE U.S. FEDERAL, STATE, LOCAL AND NON-U.S. INCOME AND OTHER TAX CONSEQUENCES IN LIGHT OF THEIR PARTICULAR CIRCUMSTANCES.

Tax Consequences of the Reverse Stock Split

The reverse stock split should constitute a recapitalization for U.S. federal income tax purposes. As a result, a Vital Therapies U.S. Holder generally should not recognize gain or loss upon the reverse stock split, except with respect to cash received in lieu of a fractional share of Vital Therapies common stock, as discussed below. A Vital Therapies U.S. Holder s aggregate tax basis in the shares of Vital Therapies common stock received pursuant to the reverse stock split should equal the aggregate tax basis of the shares of the Vital Therapies common stock surrendered (excluding any portion of such basis that is allocated to any fractional share of Vital Therapies common stock), and such Vital Therapies U.S. Holder s holding period in the shares of Vital Therapies common stock received should include the holding period in the shares of Vital Therapies common stock surrendered. Treasury Regulations provide detailed rules for allocating the tax basis and holding period of the shares of Vital Therapies common stock surrendered to the shares of Vital Therapies common stock received in a recapitalization pursuant to the reverse stock split. Vital Therapies U.S. Holders of shares of Vital Therapies common stock acquired on different dates and at different prices should consult their tax advisors regarding the allocation of the tax basis and holding period of such shares.

Cash in Lieu of Fractional Shares

A Vital Therapies U.S. Holder that receives cash in lieu of a fractional share of Vital Therapies common stock pursuant to the reverse stock split should recognize capital gain or loss in an amount equal to the difference between the amount of cash received and the Vital Therapies U.S. Holder s tax basis in the shares of Vital Therapies common stock surrendered that is allocated to such fractional share of Vital Therapies common stock. Such capital gain or loss should be long-term capital gain or loss if the Vital Therapies U.S. Holder s holding period for Vital Therapies common stock surrendered exceeded one year at the closing of the reverse stock split.

Information Reporting and Backup Withholding

A Vital Therapies U.S. Holder may be subject to information reporting and backup withholding on cash paid in lieu of fractional shares in connection with the reverse stock split. The current backup withholding rate is

Table of Contents

24 percent. Backup withholding will not apply, however, to a holder who (i) furnishes a correct taxpayer identification number and certifies the holder is not subject to backup withholding on IRS Form W-9 or a substantially similar form, (ii) provides a certification of foreign status on an appropriate IRS Form W-8 or successor form or (iii) certifies the holder is otherwise exempt from backup withholding. Vital Therapies U.S. Holders should consult their tax advisors regarding their qualification for an exemption from backup withholding and the procedures for obtaining such an exemption. If a Vital Therapies U.S. Holder does not provide a correct taxpayer identification number on IRS Form W-9 or other proper certification, the stockholder may be subject to penalties imposed by the IRS. Any amounts withheld under the backup withholding rules may be refunded or allowed as a credit against a Vital Therapies U.S. Holder s federal income tax liability, if any, provided the required information is timely furnished to the IRS. In the event of backup withholding see your tax advisor to determine if you are entitled to any tax credit, tax refund or other tax benefit as a result of such backup withholding.

Required Vote

The affirmative vote of the holders of a majority of the outstanding shares of common stock entitled to vote on the record date for the special meeting is required for approval of Proposal 4. **Each of Proposals 1, 2, 3 and 4 are conditioned upon each other. Therefore, the Transaction cannot be consummated without the approval of Proposals 1, 2, 3 and 4.**

Recommendation of Board of Directors

THE BOARD OF DIRECTORS RECOMMENDS THAT STOCKHOLDERS VOTE FOR PROPOSAL 4 TO APPROVE THE REVERSE STOCK SPLIT.

Proposal 5: Approval of Possible Adjournment of the Special Meeting

If Vital Therapies fails to receive a sufficient number of votes to approve Proposals 1, 2, 3 and 4, Vital Therapies may propose to adjourn the special meeting, for a period of not more than 30 days, for the purpose of soliciting additional proxies to approve Proposals 1, 2, 3 and 4. Vital Therapies currently does not intend to propose adjournment at the special meeting if there are sufficient votes to approve Proposals 1, 2, 3 and 4.

Required Vote

The affirmative vote of the holders of a majority of the shares of Vital Therapies common stock present in person or represented by proxy at the special meeting is required to approve Proposal 5.

Recommendation of Board of Directors

THE BOARD OF DIRECTORS RECOMMENDS THAT STOCKHOLDERS VOTE FOR 5 TO ADJOURN THE SPECIAL MEETING, IF NECESSARY, TO SOLICIT ADDITIONAL PROXIES IF THERE ARE NOT SUFFICIENT VOTES IN FAVOR OF PROPOSALS 1, 2, 3 and 4.

Table of Contents

VITAL THERAPIES BUSINESS

Overview

Vital Therapies is a biotherapeutic company that has been developing a cell-based therapy targeting the treatment of acute forms of liver failure. Vital Therapies initial product candidate, the ELAD System, or ELAD, is a human-cell-based, bio-artificial liver, which was being developed to improve rates of survival among patients with acute forms of liver failure. Since inception, Vital Therapies devoted essentially all of its efforts to product development, clinical testing and pilot manufacturing and has not recognized revenues from its planned principal operations.

In September 2018, Vital Therapies reported top-line data from a phase 3 clinical trial of ELAD, VTL-308, in 151 subjects with severe alcoholic hepatitis. Although there was a numerical improvement in survival in the ELAD-treated group between three months and one year following randomization, the study failed to meet the primary endpoint of a significant improvement in overall survival through at least ninety-one days. The secondary endpoint of the proportion of survivors at study day ninety-one also showed no statistically significant difference between the groups.

Considering these results, Vital Therapies does not believe the ELAD System can be approved in the United States or the European Union without additional clinical trials, if ever, and that such clinical trials would require substantial capital and time to complete. Consequently, Vital Therapies has ceased any further development of the ELAD System for the United States and Europe, substantially reduced its workforce, discontinued most of its supply and service agreements, and shifted its strategic focus to identifying and exploring strategic alternatives including a merger, an acquisition or sale of assets or even a dissolution and liquidation of the company. In addition to the Transaction, Vital Therapies is exploring selling some or all of its assets, including those relating to ELAD, and options to reduce the amount of space it leases.

Our business, operating results, financial condition and prospects are subject to significant risks and uncertainties. As Vital Therapies currently has no commercial products or products in later stage development, it may be difficult to secure additional funding in light of these risks and circumstances.

Vital Therapies has a history of incurring losses and negative cash flows from operations and has an accumulated deficit of $335.0 million through September 30, 2018. In conjunction with our review of strategic alternatives and our decision to cease the further development of ELAD, we significantly reduced our projected monthly cash usage. Based on these actions, we believe that our existing cash and cash equivalents of $17.8 million will be sufficient to meet our known liabilities and commitments as of September 30, 2018; however, we expect our resource requirements to change materially to the extent we identify and enter into any strategic transactions. We have based this estimate on assumptions that may prove to be wrong, and we could utilize our available capital resources sooner than we currently expect. The timing and amount of Vital Therapies actual expenditures will be based on many factors, including, but not limited to, future research and development efforts if any, the strategic options that Vital Therapies may pursue, and any unforeseen cash needs which may deplete current cash and cash equivalents sooner than planned.

As a consequence of the disappointing results from the ELAD trial, the board of directors of Vital Therapies began evaluating its strategic options to maximize stockholder value, including the possibility of seeking a merger, a sale of the company or all or some of its assets and/or distributing some or all of Vital Therapies remaining cash through either a dividend or a liquidation.

Vital Therapies management conducted a process of identifying and evaluating potential strategic alternatives, including mergers or other transactions, with biotechnology companies. On January 6, 2019, Vital Therapies,

Immunic and the shareholders of Immunic entered into the Exchange Agreement, pursuant to which, among other things, subject to the satisfaction or waiver of the conditions set forth in the Exchange Agreement, the

Table of Contents

shareholders of Immunic will exchange all of their shares for common stock of Vital Therapies, with Immunic becoming a wholly-owned subsidiary of Vital Therapies. If the Transaction is completed, the business of Vital Therapies will become the business of Immunic as described in this proxy statement/prospectus under the caption *Immunic Business.*

If the Transaction is not completed, Vital Therapies will reconsider its strategic alternatives and could pursue one of the following courses of action, which Vital Therapies currently believes to be the most likely alternatives if the Transaction with Immunic is not completed:

Pursue another strategic transaction. Vital Therapies may resume its process of evaluating a potential merger, reorganization or other business combination transaction.

Dissolve and liquidate its assets. If Vital Therapies does not believe it can find a suitable alternate merger partner in the near-term, Vital Therapies may dissolve and liquidate its assets. Vital Therapies would be required to pay all of its debts and contractual obligations, and to set aside certain reserves for potential future claims, and there can be no assurances as to the amount or timing of available cash remaining to distribute to stockholders after paying the Vital Therapies obligations and setting aside funds for reserves.

Until the proposed Transaction with Immunic is completed, Vital Therapies cannot predict whether or to what extent it might resume development activities, or what its future cash needs would be for any such activities.

Licenses, Patents and Proprietary Rights

Vital Therapies has a patent portfolio and substantial know-how relating to the ELAD System. Vital Therapies patent portfolio includes patents with claims directed to its ELAD System, specific clonal cells and cell-lines derived from human liver-derived C3A cells, as well as methods of growing such cells. Vital Therapies is currently the owner of record of four issued U.S. patents and over a dozen issued or allowed foreign patents. Additionally, Vital Therapies is the owner of record of two pending Patent Corporation Treaty international applications and three pending U.S. patent applications, as well as numerous corresponding pending foreign applications. One granted U.S. patent claims a method of using C3A cells to treat a patient s blood. The patent has a term that extends to 2027 and may possibly be extended further if the patent is determined to be eligible for patent term extension. Additionally, a second granted U.S. patent includes claims to an extracorporeal device configuration which is cell type independent and which we believe encompasses our ELAD System. The patent has a term that extends to 2025 and may possibly be extended further if the patent is determined to be eligible for patent term extension. Foreign counterparts of these patents have been issued in countries throughout the world, including, for example, in Australia, Canada, Indonesia, Israel, Japan, Mexico, New Zealand, Singapore, South Africa, South Korea, Taiwan and the Philippines. Furthermore, related applications remain pending in certain other jurisdictions including, for example, Europe, Brazil, Hong Kong and India.

Vital Therapies strove to protect the proprietary technology that underlies the ELAD System. Vital Therapies sought patent protection in the U.S. and internationally for the ELAD System, its methods of use and processes of manufacture, and any other technology to which we have rights, where available and when appropriate. Vital Therapies also relied on trade secrets that may be important to the development of our business.

A predecessor company initially developed the ELAD System after the technology was spun out of Baylor College of Medicine in 1990. In 2003, Vital Therapies acquired substantially all of the assets of the predecessor, including trade

secrets, know how, clinical experience and key employees and facilities.

Should Vital Therapies determine to pursue any further applications of the ELAD or any other technology, its success may depend on its ability to obtain and maintain patent and other proprietary rights in commercially important technology, inventions and know-how related to our business, the validity and enforceability of our patents, and the continued confidentiality of our trade secrets as well as on our ability to operate without

Table of Contents

infringing the valid and enforceable patents and proprietary rights of third parties. Vital Therapies would also expect to rely on continuing technological innovation and in-licensing opportunities to develop and maintain our proprietary position.

Vital Therapies cannot be sure that patents will be granted with respect to any of its pending patent applications or with respect to any patent applications we may own or license in the future, nor can we be sure that any of our existing patents or any patents we may own or license in the future will be useful in protecting our technology. For this and more comprehensive risks related to Vital Therapies intellectual property, please see *Risk Factors*.

The term of individual patents depends upon the legal term of the patents in the countries in which they are obtained. In most countries in which we file, the patent term is 20 years from the date of filing the non-provisional priority application. In the U.S., a patent s term may be lengthened by patent term adjustment, which compensates a patentee for administrative delays by the U.S. Patent and Trademark Office, or PTO, in granting a patent, or may be shortened if a patent is terminally disclaimed over an earlier-filed patent.

The term of a U.S. patent that covers an FDA-approved biologic may also be eligible for patent term extension, which permits patent term restoration as compensation for the patent term lost during the FDA regulatory review process. The Hatch-Waxman Amendments permit a patent term extension of up to five years beyond the expiration of the patent. The length of the patent term extension is related to the length of time the biologic is under regulatory review. A patent term extension cannot extend the remaining term of a patent beyond a total of 14 years from the date of product approval and only one patent applicable to an approved biologic may be extended. Similar provisions are available in Europe and other foreign jurisdictions to extend the term of a patent that covers an approved drug. When possible, depending upon the length of clinical trials and other factors, we expect to apply for patent term extensions.

In addition to patents, we rely on trade secrets and know-how to develop and maintain our competitive position. For example, significant aspects of our proprietary technology are based on unpatented trade secrets and know-how. This includes our methods of expanding, culturing and optimizing the performance of the human VTL C3A cell line.

Trade secrets and know-how can be difficult to protect. We seek to protect our proprietary technology and processes, in part, by confidentiality agreements and invention assignment agreements with our employees, consultants, scientific advisors, contractors and commercial partners. These agreements are designed to protect our proprietary information and, in the case of the invention assignment agreements, to grant us ownership of technologies that are developed through a relationship with a third party. We also seek to preserve the integrity and confidentiality of our data and trade secrets by maintaining physical security of our premises and physical and electronic security of our information technology systems. While we have confidence in these individuals, organizations and systems, agreements or security measures may be breached, and we may not have adequate remedies for any breach. In addition, our trade secrets may otherwise become known or be independently discovered by competitors. To the extent that our contractors use intellectual property owned by others in their work for us, disputes may arise as to the rights in related or resulting know-how and inventions.

We seek trademark protection in the U.S. and outside of the U.S. where available and when appropriate. We have registered trademark rights for Vital Therapies in the U.S. and Australia and for ELAD in the U.S., Europe and Australia.

Competition

The biotherapeutic and medical device industries are highly competitive, and we face potential competition from pharmaceutical, specialty pharmaceutical, medical device and biotechnology companies worldwide. Given the

significant unmet medical need for novel therapies to treat liver failure, many companies, universities and

Table of Contents

research organizations are actively engaged in the discovery, research and development of potential therapies in this field. This includes entities engaged in research on cell-based approaches to liver failure.

There are reports of a human cell-based system under development in China, but the clinical status of this program has not been confirmed. Additionally, a number of companies have performed research work on various human hepatocyte cell lines, and several academic researchers and companies are actively pursuing animal research in this area. Companies have also attempted to develop extracorporeal therapy based upon primary porcine hepatocytes and may be in early stage clinical studies with pig-cell based systems designed for the treatment of liver failure. Other than noted above, we are not aware of other entities being close to undergoing human clinical trials with a human cell-based product for the treatment of liver failure; however, it is possible that these trials are occurring without our knowledge, and that such a product may get to market much faster than we expect.

Liver dialysis systems are commercially available in the U.S. and Europe, and further development of albumin dialysis systems is ongoing. These systems rely on not only traditional dialysis circuits to remove water-soluble toxins, but also albumin dialysis circuits to remove albumin-bound molecules. To our knowledge none of these non-cellular systems has shown an improvement in long-term survival among patients with liver failure. It has also been reported that a clinical trial in decompensated liver disease for a novel liver dialysis (non-bioartificial) system incorporating albumin dialysis along with a selective adsorption technology has been initiated.

In addition, there are several drugs available to treat symptoms associated with liver failure, including steroids, pentoxifylline and N-acetylcysteine. These three drugs, alone or in combination, are used frequently in patients with liver failure resulting from acute hepatocellular insult. Gilead Sciences has conducted a phase 2 trial to evaluate the safety of a non-cellular, drug therapy known as GS-4997 in combination with a steroid named prednisolone, compared with prednisolone alone, in subjects with severe alcoholic hepatitis. Results were presented in 2018 and did not suggest that there was a significant difference in outcome between the treatment groups. An academic collaboration supported by the U.S. NIH also reported data on the use of interleukin-1 receptor antagonist (Anakinra) in combination with pentoxifylline and zinc in subjects with sAH. There was no significant difference in short or long-term outcome between the treatment groups.

Government Regulation

We operate in a highly-regulated industry that is subject to significant federal, state, local and foreign regulation. Our present and future business has been, and will continue to be, subject to a variety of laws including, the Federal Food, Drug, and Cosmetic Act, or FDC Act, and the Public Health Service Act, or PHS Act, among others. Biologics and medical devices are subject to regulation under the PHS Act and FDC Act.

The FDA has specified a definition for the term combination product, which includes: (1) a product comprised of two or more regulated components, i.e., drug/device, biologic/device, drug/biologic, or drug/device/biologic, that are physically, chemically, or otherwise combined or mixed and produced as a single entity; (2) two or more separate products packaged together in a single package or as a unit and comprised of drug and device products, device and biological products, or biological and drug products; (3) a drug, device, or biological product packaged separately that according to its investigational plan or proposed labeling is intended for use only with an approved individually specified drug, device, or biological product where both are required to achieve the intended use, indication, or effect and where upon approval of the proposed product the labeling of the approved product would need to be changed, e.g., to reflect a change in intended use, dosage form, strength, route of administration, or significant change in dose; or (4) any investigational drug, device, or biological product packaged separately that according to its proposed labeling is for use only with another individually specified investigational drug, device, or biological product where both are required to achieve the intended use, indication, or effect.

The FDA is divided into various Centers by product type. Different Centers typically review drug, biologic, or device applications. In order to review an application for a combination product, the FDA must decide which

Table of Contents

Center should be responsible for the review. FDA regulations require that the FDA determine the combination product s primary mode of action, or PMOA, which is the single mode of a combination product that provides the most important therapeutic action of the combination product. The Center that regulates that portion of the product that generates the PMOA becomes the lead evaluator. If there are two independent modes of action, neither of which is subordinate to the other, the FDA makes a determination as to which Center to assign the product based on consistency with other combination products raising similar types of safety and effectiveness questions or to the Center with the most expertise in evaluating the most significant safety and effectiveness questions raised by the combination product. When evaluating an application, a lead Center may consult other Centers but still retain complete reviewing authority, or it may collaborate with another Center, by which the Center assigns review of a specific section of the application to another Center, delegating its review authority for that section. Typically, the FDA requires a single marketing application submitted to the Center selected to be the lead evaluator, although the agency has the discretion to require separate applications to more than one Center. One reason to submit multiple evaluations is if the applicant wishes to receive some benefit that accrues only from approval under a particular type of application, like new drug product exclusivity. If multiple applications are submitted, each may be evaluated by a different lead Center.

The ELAD System is regulated as a combination biologic/device in the U.S. Based upon the proposed mechanism of action, the primary Center within the FDA responsible for its regulation is the Center for Biologics Evaluation and Research, or CBER. The CBER office responsible for review is the Office of Tissues and Advanced Therapies, and the marketing application will be a biologics license application, or BLA. CBER would consult with the Center for Devices and Radiological Health, or CDRH, in reviewing the device components of the ELAD System.

FDA Approval Process

In the U.S., pharmaceutical and biological products and medical devices are subject to extensive regulation by the FDA. The FDC Act, PHS Act, and other federal and state statutes and regulations, govern, among other things, the research, development, testing, manufacture, storage, recordkeeping, approval, labeling, promotion and marketing, distribution, post-approval monitoring and reporting, sampling, and import and export of these products. Failure to comply with applicable U.S. requirements may subject a company to a variety of administrative or judicial sanctions, such as FDA refusal to approve pending license applications, warning and other letters, product recalls, product seizures, total or partial suspension of production or distribution, injunctions, fines, civil penalties and criminal prosecution.

Preclinical Studies

Biological product development in the U.S. typically involves preclinical laboratory and animal tests. Preclinical tests include laboratory evaluation of product chemistry, formulation, and toxicity, as well as animal trials to assess the characteristics and potential safety and efficacy of the product. The conduct of the preclinical tests must comply with federal regulations and requirements including good laboratory practices. The results of preclinical testing are submitted to the FDA as part of an investigational new drug application, or IND, along with other information, including information about product chemistry, manufacturing and controls, and a proposed clinical trial protocol. Long-term preclinical tests, such as animal tests of reproductive toxicity and carcinogenicity, may continue after the IND is submitted.

A 30-day waiting period after the submission of each IND is required prior to the commencement of clinical testing in humans. If the FDA has not objected to the IND within this 30-day period, the clinical trial proposed in the IND may begin.

Clinical Studies

Clinical trials involve the administration of the investigational biologic to healthy volunteers or subjects with the targeted indication, or disease, under the supervision of a qualified investigator. Clinical trials must be conducted

Table of Contents

in compliance with federal regulations and good clinical practices, or GCP, an international standard meant to protect the rights and health of subjects and to define the roles of clinical trial sponsors, administrators, and monitors, as well as under protocols detailing the objectives of the trial, the parameters to be used in monitoring safety and the effectiveness criteria to be evaluated. Each protocol involving testing on U.S. subjects and subsequent protocol amendments must be submitted to the FDA as part of the IND.

The FDA may order the temporary or permanent discontinuation of a clinical trial at any time or impose other sanctions if it believes that the clinical trial is not being conducted in accordance with FDA requirements or presents an unacceptable risk to the clinical trial subjects. The clinical trial protocol, protocol amendments and informed consent information for subjects in clinical trials must also be submitted to an institutional review board, or IRB, for approval. An IRB may also require the clinical trial at the site to be halted, either temporarily or permanently, for failure to comply with the IRB s requirements, or may impose other conditions.

Disclosure of Clinical Trial Information

Sponsors of clinical trials of investigational products are required to register on clinicaltrials.gov, a National Institute of Health website registry database, and disclose certain clinical trial information. Information related to the product, patient population, phase of investigation, study sites and investigators, and other aspects of the clinical trial is then made public as part of the registration. Sponsors are also obligated to discuss the results of their clinical trials after completion. Disclosure of the results of these trials can be delayed until the new product or new indication being studied has been approved. Competitors may use this publicly available information to gain knowledge regarding the progress of development programs.

Marketing Approval

Clinical trials to support BLAs, which are applications for marketing approval, are typically conducted in three sequential phases, but the phases may overlap. In phase 1, the initial introduction of the investigational biologic candidate into healthy human subjects, the investigational biologic is tested to assess metabolism, pharmacokinetics, pharmacological actions, side effects associated with increasing doses and, if possible, early evidence on effectiveness. Phase 2 usually involves trials in a limited subject population, to determine the effectiveness of the investigational biologic for a particular indication or indications, dosage tolerance and optimum dosage, and identify common adverse effects and safety risks. In the case of product candidates for severe or life-threatening diseases such as cancer, the initial human testing is often conducted in patients rather than in healthy volunteers.

If an investigational biologic demonstrates evidence of effectiveness and an acceptable safety profile in phase 2 evaluations, phase 3 clinical trials are undertaken to obtain additional information about clinical efficacy and safety in a larger number of subjects, typically at geographically dispersed clinical trial sites, to permit the FDA to evaluate the overall benefit-risk relationship of the investigational drug and to provide adequate information for its labeling. In most cases, the FDA requires two adequate and well-controlled phase 3 clinical trials to demonstrate the efficacy and safety of the biologic for use in a specific indication or population. A single phase 3 clinical trial with other confirmatory evidence may be sufficient in rare instances where the study is a large multi-center trial demonstrating internal consistency and a statistically very persuasive finding of a clinically meaningful effect on mortality, irreversible morbidity, or prevention of a disease with a potentially serious outcome and confirmation of the result in a second trial would be practically or ethically impossible.

After completion of the required clinical testing, a BLA is prepared and submitted to the FDA. FDA approval of the BLA is required before marketing of the product may begin in the U.S. The BLA must include the results of all preclinical, clinical and other testing and a compilation of data relating to the product s manufacture and controls. The

cost of preparing and submitting a BLA is substantial. The submission of most BLAs is subject to a substantial application fee and the manufacturer or sponsor of an approved BLA is also subject to annual product and establishment user fees.

Table of Contents

The FDA has 60 days from its receipt of a BLA to determine whether the application will be accepted for filing based on the agency s threshold determination that it is sufficiently complete to permit substantive review. Once the submission is accepted for filing, the FDA begins an in-depth review. The FDA has agreed to certain performance goals in the review of BLAs. Most such applications for standard review biologics products are reviewed within twelve months of submission; most applications for priority review biologics are reviewed within eight months of submission. Priority review for biologics is limited to those products intended to treat a serious or life-threatening disease with unmet medical need relative to the currently approved products. The review process may be extended by the FDA for three additional months to consider certain late-submitted information, or information intended to clarify information already provided in the submission.

The FDA may also refer applications for novel biologics products or biologics products that present difficult questions of safety or efficacy, to an advisory committee, typically a panel that includes clinicians and other experts, for review, evaluation and a recommendation as to whether the application should be approved. The FDA is not bound by the recommendation of an advisory committee, but it generally follows such recommendations. Before approving a BLA, the FDA will typically inspect one or more clinical sites to assure compliance with GCP. Additionally, the FDA will inspect the facility or the facilities at which the biologic product is manufactured. The FDA will not approve the BLA unless compliance with current good manufacturing practice, or cGMP, is satisfactory, including compliance with applicable parts of the medical device Quality System Regulation, or QSR, as defined for combination products, and the BLA contains data that provide substantial evidence that the biologic is safe, pure and potent in the indication studied. Manufacturers of biologics also must comply with the FDA s general biological product standards.

After the FDA evaluates the BLA and the manufacturing facilities, it issues either an approval letter or a complete response letter. A complete response letter outlines the deficiencies in the submission and may require substantial additional testing, including additional large-scale clinical testing or information in order for the FDA to reconsider the application. If, or when, those deficiencies have been addressed to the FDA s satisfaction in a resubmission of the BLA, the FDA will issue an approval letter. The FDA has committed to reviewing such resubmissions in two or six months depending on the type of information included.

An approval letter authorizes commercial marketing and distribution of the biologic with specific prescribing information for specific indications. As a condition of BLA approval, the FDA may require substantial post-approval testing and surveillance to monitor the product s safety or efficacy and may impose other conditions, including labeling restrictions, which can materially affect the product s potential market and profitability. Once granted, product approvals may be withdrawn if compliance with regulatory standards is not maintained or problems or safety issues are identified following initial marketing.

Changes to some of the conditions established in an approved application, including changes in indications, labeling, device components or manufacturing processes or facilities, require submission and FDA approval of a new BLA or BLA supplement before the change can be implemented. A BLA supplement for a new indication typically requires clinical data similar to that in the original application, and the FDA uses the same procedures and actions in reviewing BLA supplements as it does in reviewing BLAs.

Post-Approval Requirements

Once a BLA is approved, a product will be subject to certain post-approval requirements. For instance, the FDA closely regulates the post-approval marketing and promotion of biologics, including standards and regulations, off-label promotion, industry-sponsored scientific and educational activities and promotional activities involving the internet.

Biologics may be marketed only for the approved indications and in accordance with the provisions of the approved labeling.

Table of Contents

Adverse event reporting and submission of periodic reports is required following FDA approval of a BLA. The FDA also may require post-marketing testing, known as phase 4 testing, Risk Evaluation and Mitigation Strategies, or REMS, and surveillance to monitor the effects of an approved product or place conditions on an approval that could restrict the distribution or use of the product. In addition, quality control as well as product manufacturing, packaging and labeling procedures must continue to conform to cGMP s after approval. Manufacturers and certain of their subcontractors are required to register their establishments with the FDA and certain state agencies, and are subject to periodic unannounced inspections by the FDA during which the agency inspects manufacturing facilities to assess compliance with applicable regulations such as cGMPs and the QSR. Accordingly, manufacturers must continue to expend time, money and effort in the areas of production and quality control to maintain compliance with cGMP s. Regulatory authorities may withdraw product approvals or request product recalls if a company fails to comply with regulatory standards, if it encounters problems following initial marketing, or if previously unrecognized problems are subsequently discovered.

Sales and Marketing Exclusivity and Approval of Competing Products

Biosimilar Exclusivity

The Biologics Price Competition and Innovation Act of 2009, or BPCIA, creates an abbreviated approval pathway for biological products shown to be highly similar to or interchangeable with an FDA-licensed reference biological product. Biosimilarity sufficient to reference a prior FDA-approved product requires that there be no differences in conditions of use, route of administration, dosage form, and strength, and no clinically meaningful differences between the biological product and the reference product in terms of safety, purity, and potency. Biosimilarity must be shown through analytical studies, animal studies, and at least one clinical study, absent a waiver. A biosimilar product may be deemed interchangeable with a prior approved product if it meets the higher hurdle of demonstrating that it can be expected to produce the same clinical results as the reference product and, for products administered multiple times, the biologic and the reference biologic may be switched after one has been previously administered without increasing safety risks or risks of diminished efficacy relative to exclusive use of the reference biologic. Complexities associated with the larger, and often more complex, structures of biological products, as well as the process by which such products are manufactured, pose significant hurdles to implementation.

A reference biologic is granted twelve years of exclusivity from the time of first licensure of the reference product, and no application for a biosimilar can be submitted for four years from the date of licensure of the reference product. The first biologic product submitted under the abbreviated approval pathway that is determined to be interchangeable with the reference product has exclusivity against a finding of interchangeability for other biologics for the same condition of use for the lesser of (i) one year after first commercial marketing of the first interchangeable biosimilar, (ii) eighteen months after the first interchangeable biosimilar is approved if there is no patent challenge, (iii) eighteen months after resolution of a lawsuit over the patents of the reference biologic in favor of the first interchangeable biosimilar applicant, or (iv) 42 months after the first interchangeable biosimilar s application has been approved if a patent lawsuit is ongoing within the 42-month period.

Orphan Drugs

Under the Orphan Drug Act, the FDA may grant orphan designation to a drug or biologic intended to treat a rare disease or condition, which is generally a disease or condition that affects fewer than 200,000 individuals in the U.S., or more than 200,000 individuals in the U.S. and for which there is no reasonable expectation that the cost of developing and making available in the U.S. a drug or biologic for this type of disease or condition will be recovered from sales in the U.S. for that drug or biologic. Orphan drug designation must be requested before submitting a BLA. After the FDA grants orphan drug designation, the generic identity of the therapeutic agent and its potential orphan

use are disclosed publicly by the FDA.

If a product that has orphan drug designation subsequently receives the first FDA approval for the disease for which it has such designation, the product is entitled to orphan product exclusivity, which means that the FDA

Table of Contents

may not approve any other applications, including a full BLA, to market the same biologic for the same indication for seven years, except in limited circumstances, such as a showing of clinical superiority to the product with orphan drug exclusivity. Orphan drug exclusivity does not prevent FDA from approving a different drug or biologic for the same disease or condition, or the same drug or biologic for a different disease or condition. Among the other benefits of orphan drug designation are tax credits for certain research and a waiver of the BLA application user fee.

A designated orphan drug may not receive orphan drug exclusivity if it is approved for a use that is broader than the indication for which it received orphan designation. In addition, orphan drug exclusive marketing rights in the U.S. may be lost if the FDA later determines that the request for designation was materially defective or if the manufacturer is unable to assure sufficient quantities of the product to meet the needs of patients with the rare disease or condition.

21st Century Cures Act

In December 2016, President Obama signed the 21st Century Cures Act, or Cures Act, into law. The Cures Act seeks to accelerate the discovery, development, and delivery of new medicines and medical technologies. To that end, and among other provisions, the Cures Act revises the United States Federal Food, Drug, and Cosmetic Act to streamline review of combination product applications and authorizes the FDA to designate a drug as a regenerative advanced therapy, thereby making it eligible for certain expedited review and approval designations.

Federal and State Fraud and Abuse, Privacy and Transparency Laws

In addition to FDA restrictions on marketing of pharmaceutical products, several other types of federal and state laws in the U.S. have been applied to restrict certain business operations and activities in the biopharmaceutical and medical device industries in recent years. These laws that may affect our ability to operate include, but are not limited to:

The federal healthcare program anti-kickback statute prohibits, among other things, knowingly and willfully offering, paying, soliciting, or receiving any remuneration (including any kickback, bribe or rebate), directly or indirectly, overtly or covertly, in cash or in kind, to induce, or in return, for purchasing, leasing, ordering, or arranging for or recommending the purchase, lease, or order of any good, facility, service or item for which payment is made, in whole or in part, under a federal health care program. The federal healthcare program anti-kickback statute has been interpreted to apply to arrangements between pharmaceutical manufacturers on one hand and prescribers, purchasers and formulary managers on the other. Although there are a number of statutory exceptions and regulatory safe harbors protecting certain common activities from prosecution, the exceptions and safe harbors are drawn narrowly, and practices that involve remuneration intended to induce prescribing, purchasing, or recommending may be subject to scrutiny if they do not qualify for a statutory exception or a regulatory safe harbor. Failure to meet all of the requirements of a particular applicable statutory exception or regulatory safe harbor does not make the conduct per se illegal under the federal healthcare program anti-kickback statute. Instead, the legality of the arrangement will be evaluated on a case-by-case basis based on a cumulative review of all of its facts and circumstances.

The federal civil False Claims Act prohibits, among other things, any person or entity from knowingly presenting, or causing to be presented, a false or fraudulent claim for payment to, or approval by, the federal government, or knowingly making, using, or causing to be made or used, a false record or statement material to a false or fraudulent claim to the federal government. Recently, the civil False Claims Act has been used to assert liability on the basis of kickbacks and improper referrals, improperly reported government pricing metrics such as Medicaid Best Price or Average Manufacturer Price, improper promotion of drugs or off-label uses not expressly approved by the FDA in a drug s label, and misrepresentations with respect to the services rendered or items provided. The federal criminal false claims law prohibits, among other things, at any time knowingly and willingly making, or causing to be made, any

false statement or representation of a material fact for use in determining rights to a benefit or payment under a federal healthcare program.

Table of Contents

Many states also have statutes or regulations similar to the federal fraud and abuse laws, which apply to items and services reimbursed under Medicaid and other state programs, or, in several states, apply regardless of the payor (e.g. private payors). Sanctions under federal, and state healthcare fraud and abuse laws may include, without limitation, civil, criminal and administrative penalties, damages, monetary fines, disgorgement, possible exclusion from participation in Medicare, Medicaid and other federal healthcare program, contractual damages, reputational harm, diminished profits and future earnings, and the curtailment or restructuring of operations.

Additionally, the federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, created new federal criminal statutes that prohibit knowingly and willfully executing, or attempting to execute, a scheme to defraud or to obtain, by means of false or fraudulent pretenses, representations, or promises, any of the money or property owned by, or under the custody or control of, any healthcare benefit program, including private third party payors and knowingly and willfully falsifying, concealing or covering up by trick, scheme or device a material fact or making any materially false, fictitious or fraudulent statement in connection with the delivery of or payment for healthcare benefits, items or services relating to healthcare matters. Many states have similar fraud and abuse statutes and regulations that apply to items and services reimbursed under Medicaid and other state programs, or, in several states, private payors. In addition, we could be subject to, or our marketing activities could be limited by, data privacy and security regulation by both the federal government and the states in which we could eventually conduct our business.

The risk of our being found in violation of these laws is increased by the fact that many of them have not been fully interpreted by the regulatory authorities or the courts, and their provisions are open to a variety of interpretations. Moreover, recent healthcare reform legislation has strengthened many of these laws. For example, the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act (collectively, the ACA), among other things, amends the intent requirement of the federal healthcare program anti-kickback statute to a stricter standard such that a person or entity does not need to have actual knowledge of the federal healthcare program anti-kickback statute or specific intent to violate it in order to have committed a violation. In addition, the ACA codified case law that a claim including items or services resulting from a violation of the federal anti-kickback statute constitutes a false or fraudulent claim for purposes of the civil False Claims Act. Because of the breadth of these laws and the narrowness of the statutory exceptions and regulatory safe harbors, it is possible that some of our business activities may not satisfy the statutory exceptions or regulatory safe harbors and we could be subject to challenge under one or more of such laws. State law equivalents to these federal laws may also apply. Such a challenge could have a material adverse effect on our business, financial condition and results of operations.

Additionally, the federal Physician Payments Sunshine Act within the ACA, and its implementing regulations, require that certain manufacturers of drugs, devices, biological, and medical supplies for which payment is available under Medicare, Medicaid, or the Children s Health Insurance Program (with certain exceptions) to report to the Centers for Medicare & Medicaid Services, or CMS, information related to certain payments or other transfers of value made or distributed to physicians and teaching hospitals, or to entities or individuals at the request of, or designated on behalf of, the physicians and teaching hospitals. The Physician Payments Sunshine Act provisions implemented in final regulation requires applicable manufacturers to report annually to CMS certain ownership and investment interests held by physicians and their immediate family members. Manufacturers are required to report such data to CMS by the 90th day of each subsequent calendar year. Other state laws require pharmaceutical companies to adopt and or disclose specific compliance policies to regulate the Company s interactions with healthcare professionals. Moreover, some states, such as Minnesota and Vermont, also impose an outright ban on certain gifts to physicians.

Violations of some of these laws may result in substantial fines. These laws affect promotional activities by limiting the kinds of interactions we may have with hospitals, physicians or other potential purchasers or users of our products. Both the disclosure laws and gift bans will impose additional administrative and compliance burdens on us once and if we receive marketing approval of any product. Although we seek to structure our interactions in compliance with all

applicable requirements, these laws are broadly written, and it is often

Table of Contents

difficult to determine precisely how a law will be applied in specific circumstances. If an employee were to offer an inappropriate gift to a customer, we could be subject to a claim under an applicable state law. Similarly, if we fail to comply with a reporting requirement, we could be subject to penalties under applicable federal or state laws including, without limitation, civil, criminal and administrative penalties, damages, monetary fines, disgorgement, possible exclusion from participation in Medicare, Medicaid and other federal healthcare programs, contractual damages, reputational harm, diminished profits and future earnings, and the curtailment or restructuring of our operations. In addition to the federal and state disclosure and gift ban laws, certain countries outside of the U.S. have similarly enacted disclosure laws for which the company in its activities may be subjected to from time to time.

Regulation in the European Union

Biologics and medical devices are subject to extensive regulation outside of the U.S. In the European Union, for instance, a centralized approval procedure, or Centralized Procedures, may be used to authorize the marketing of a product in all countries of the European Union, which includes most major European markets. However, for certain products, if this procedure is not used, approval in one country of the European Union can be used to obtain approval in a second country of the European Union under two simplified application processes, either the mutual recognition procedure or the decentralized procedure. Both of these procedures rely on the principle of mutual recognition. In addition to regulatory approval, pricing and reimbursement approvals are also required in most countries.

In Europe, the ELAD System is regulated as a Combination Somatic Cell Advanced Therapy Medicinal Product, or ATMP. The primary regulatory license application in Europe (a Marketing Authorization Application, or MAA), if any, would be made to The Committee for Advanced Therapies, or CAT, and the Committee for Human Medicinal Products, or CHMP, which are the committees at the European Medicines Agency, or EMA, that are responsible for assessing the quality, safety and efficacy of ATMPs. Marketing Authorization Applications for ATMPs can only be filed using the Centralized Procedure. The CHMP and the CAT liaise closely together so the CHMP is able to make a scientific opinion relating to the authorization to place an ATMP on the market in accordance with Regulation (EC) No 1394/2007 and pharmacovigilance. The CAT has also established collaborations with Notified Bodies, or NBs, in Europe in order to review the device components of combination device products, and we anticipate that the device components of any submission would be reviewed by one of those NBs. During the clinical trial phase in Europe, we were granted authorization to conduct clinical studies at the national level through the health authority agencies in each country, each of which has its own format and regulation for the issuance of clinical trial authorizations, or CTAs. For some countries, it is necessary to obtain separate authorizations in each country for each clinical trial protocol from the medicines and device agencies as there is yet to be developed a procedure for dealing with combination products like the ELAD System. The EMA has provisions for providing companies with advice on topics related to marketing authorization in Europe through the Scientific Advice Working Party, or SAWP. Previously, we sought and obtained advice on the ELAD development program through the SAWP process.

In other jurisdictions we anticipate that there will be different requirements for authorization for clinical trials and ultimately marketing of the ELAD System due to the complex nature of the combination of biological and device components of our ELAD System.

Other Regulations

We are also subject to numerous, federal, state, local and foreign laws and regulations relating to such matters as safe working conditions, manufacturing practices, fire hazard control, environmental protection and the disposal of hazardous and potentially hazardous substances and biological materials. We may incur significant costs to comply with such laws and their related regulations now or in the future. In addition, we are also subject to laws and regulations in foreign countries outside of the U.S. and Europe where we may seek to commercialize the ELAD

System. In certain cases, these foreign laws and regulations may change at inopportune times and prevent

Table of Contents

timely commercialization. For example, several years after we submitted our 2007 regulatory package in China, we were notified of a then newly-enacted 2009 regulation which prohibited the ELAD System s approval in China until it is first approved in the U.S.

Geographic Information

During 2018, 2017 and 2016, substantially all of our long-lived assets were located within the U.S.

Financial Information about Segments

We manage our operations as a single reportable segment for the purposes of assessing performance and making operating decisions.

Employees

As of January 15, 2019, we had 11 employees, 2 of whom held M.D. degrees. Of our employees, 2 were engaged in research and development, 1 in manufacturing and 8 in administration. None of our employees is represented by a labor organization or under any collective bargaining arrangement, and we have never had a work stoppage. We consider our employee relations to be good.

Corporate Information and Website

We were incorporated in California in May 2003 as Vitagen Acquisition Corp., changed our name to Vital Therapies, Inc. in June 2003, and reincorporated in Delaware in January 2004. Our principal executive offices are located at 15222-B Avenue of Science, San Diego, California 92128. Our telephone number is (858) 673-6840. Our website address is http://www.vitaltherapies.com. Our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, and any amendments to those reports filed or furnished pursuant to Sections 13(a) and 15(d) of the Securities Exchange Act of 1934, as amended, or the Exchange Act, are available free of charge on our website as soon as reasonably practicable after we electronically file such material with, or furnish it to, the Securities and Exchange Commission, or SEC. The SEC maintains an internet site that contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC at *http://www.sec.gov*. Information contained on, or that can be accessed through, our website, or from the SEC does not constitute part of this proxy statement/prospectus, and the inclusion of our website address in this proxy statement/prospectus is an inactive textual reference only.

We may remain an emerging growth company until as late as December 31, 2019 (the fiscal year-end following the fifth anniversary of the completion of our initial public offering). We refer to the Jumpstart Our Business Startups Act of 2012 herein as the JOBS Act, and references herein to emerging growth company are intended to have the meaning associated with it in the JOBS Act.

Properties

As of February 2019, Vital Therapies leases 19,000 square feet of office, research and development and manufacturing space. We believe that these facilities are adequate and exceed our existing needs. We are currently exploring options to reduce the amount of space we lease.

Legal Proceedings

We are not currently a party to any litigation, nor are we aware of any pending or threatened litigation against us that we believe would materially affect our business, operating results, financial condition or cash flows. Our industry is characterized by frequent claims and litigation including securities litigation, claims regarding patent and other intellectual property rights and claims for product liability. As a result, in the future, we may be involved in various legal proceedings from time to time.

Table of Contents

IMMUNIC BUSINESS

Overview

Immunic is a clinical stage biopharmaceutical company focused on the development of selective oral therapies in immunology with the goal of becoming a leader in treatments for chronic inflammatory and autoimmune (AI) diseases. Immunic s operations are in Planegg-Martinsried near Munich, Germany, and Immunic currently has 12 employees.

Strategy

Immunic is currently pursuing three development programs. These include the IMU-838 program, focused on the development of oral formulations of small molecule inhibitors of dihydroorotate dehydrogenase (DHODH); the IMU-935 program focused on an inverse agonist of RORgt, an immune cell-specific isoform of RORgt (retinoic acid receptor-related orphan nuclear receptor gamma), and the IMU-856 program, involving the development of a drug targeting the restoration of intestinal barrier function. These products are being developed to address diseases such as ulcerative colitis (UC), Crohn s disease (CD), multiple sclerosis (MS) and psoriasis. In addition to these large markets, Immunic s products are also being developed to address certain rare diseases with high unmet medical needs, such as primary sclerosing cholangitis (PSC).

The following table summarizes the potential indications, clinical targets and clinical development status of Immunic s three product candidates:

* IST: Investigator sponsored trial

Immunic s most advanced drug candidate, IMU-838, targets DHODH, a key enzyme in the intracellular metabolism of immune cells in the body. IMU-838 s lead indication is inflammatory bowel disease (IBD), where the drug candidate is currently being studied in a phase 2b trial, CALDOSE-1. Assuming that this trial is successful, Immunic believes that IMU-838 will be ready for pivotal phase 3 development by Immunic either alone or with a partner. Moreover, upon ultimate regulatory approval, Immunic believes that IMU-838 will be

Table of Contents

positioned to be a first-in-class DHODH inhibitor in this indication. DHODH represents a proven target for drug development, with other DHODH inhibitors (e.g. Aubagio®, Sanofi) available commercially for the treatment of conditions outside of IBD, such as MS. In addition, prior clinical data with IMU-838 in rheumatoid arthritis (RA) has resulted in a good understanding of the safety profile of the drug at doses consistent with those currently under evaluation for the treatment of IBD.

Immunic s second drug candidate, IMU-935, is a highly potent and selective inverse agonist of a transcription factor called RORgt, which is believed to be one of the major switches for various inflammatory diseases. This target is believed to be an attractive alternative to approved antibodies for targets like IL-23, IL-17 receptor and IL-17 itself. IMU-935 shows strong cytokine inhibition, targeting both TH1 and TH17 responses in several preclinical test systems and has demonstrated efficacy in animal models for psoriasis and IBD. Based on these preclinical data, Immunic believes that IMU-935 has best-in-class potential as a therapy for various auto-immune diseases.

Immunic s third program, IMU-856, is a highly innovative small molecule inhibitor that targets a protein which serves as a transcriptional regulator of intestinal barrier function. Based on preclinical data this compound appears to represent a new and potentially disruptive approach for the treatment of inflammatory bowel diseases by potentially restoring the intestinal barrier function while maintaining immunocompetency.

Acquisition History

Immunic acquired IMU-838 and IMU-935 in September 2016 from 4SC AG, a private company based in Munich, Germany, through full asset acquisitions. Meanwhile, Immunic s rights to IMU-856 are secured pursuant to a license and option agreement with Daiichi Sankyo Venture Science Labs in Tokyo, Japan. Immunic and Daiichi Sankyo Venture Science Labs are currently conducting phase-1-enabling studies, including Good Laboratory Practice (GLP) toxicology studies in rats and monkeys. Immunic has the option to execute an exclusive, worldwide license to this development project at the time of starting phase 1, in return for payment of an upfront licensing fee and further development, approval and sales milestone payments as well as royalties.

Commercialization Strategy

Immunic s products are being developed with the aim to deliver proof-of-efficacy in state-of-the-art clinical trials with multiple compounds in multiple indications. Subsequent pivotal trials may be conducted by either Immunic alone, or with a future partner.

Immunic expects to continue to lead most of its research and development activities from its Planegg-Martinsried location, where a dedicated scientific, regulatory, clinical and medical team is available. Due to this team s key relationships with local service providers, Immunic anticipates that this will result in timely, cost-effective execution of Immunic s development programs. In addition, Immunic intends to use its Australian subsidiary to expedite the early clinical trials for IMU-935 and IMU-856.

Immunic also currently has a subsidiary in Halle/Saale, Germany, where a collaboration with the Fraunhofer Institute provides access to key preclinical development capabilities.

Leadership

Immunic was founded and is led by a team of dedicated and committed experienced professionals with an entrepreneurial spirit and track record of successful licensing transactions in the healthcare industry worldwide (EU, USA, Asia). The team brings together more than 70 years of leadership experience in the pharmaceutical industry with

a strong scientific background and sound knowledge in drug discovery, product development, chemistry, manufacturing and controls (CMC) processes, intellectual property, clinical trial design, health economics and market access, capital markets, regulatory affairs and project valuation. The team members are inventors on project-related patents and have successfully published project related scientific publications.

Table of Contents

Product Candidates

IMU-838

IMU-838 is a small molecule investigational drug (vidofludimus calcium) under development as an oral (tablet) formulation for the treatment of IBD and other autoimmune and chronic inflammatory diseases. By inhibiting dihydroorotate dehydrogenase (DHODH), a key enzyme of pyrimidine biosynthesis, the metabolism of activated T and B immune cells is halted, and the release of TH1 and TH17 key cytokines including IL-17A, IL-17F and IFN-g is inhibited, thereby hopefully reducing the inflammation associated with IBD. Furthermore, in preclinical studies of vidofludimus, the active ingredient of IMU-838, apoptosis was induced in activated T cells, which also may play a crucial role in the activity of the drug in IBD by further dampening the inflammatory response. Immunic believes that a key advantage of DHODH inhibition in general is that the sensitivity of specific immune cells to DHODH inhibition correlates with their intracellular metabolic activation of DHODH, a marker for activated immune cells. In support, animals treated with large doses of the active moiety of IMU-838 were shown to lack detrimental effects on bone marrow, an anti-proliferative effect regularly seen with traditional immunomodulators.

Based on the selectivity towards metabolically-activated cells (with a high need for ribonucleic acid (RNA) and deoxyribonucleic acid (DNA) production), DHODH inhibition also leads to a direct antiviral effect which has been demonstrated in various virus infected cells, such as influenza virus infections, cytomegolvirus infections and even hemorrhagic fever-causing viruses, like Lassa virus. As such, treatment with IMU-838 may avoid virus reactivation, one of the major drawbacks of the long-term use of traditional immunomodulators in IBD patients.

Efficacy of the active moiety of IMU-838 has been demonstrated in several animal disease models for IBD, systemic lupus erythematosus (SLE) and transplant rejection.

Initial clinical trials were done by 4SC AG, or 4SC, with a free acid formulation of the active moiety vidofludimus and an amorphous material. In total, 4SC s clinical trial data encompasses more than 250 individuals treated with the active moiety, thus creating a safety database for further IMU-838 development. 4SC conducted a phase 2 double-blinded, randomized, placebo-controlled study in patients with rheumatoid arthritis, which showed that there was no increased rate of infections in the vidofludimus arm versus the placebo arm. In addition, 4SC conducted a small single-arm, open-label and uncontrolled phase 2a study in corticosteroid-dependent IBD patients. In this study, following steroid tapering during 12-week treatment with vidofludimus, approximately 50% of IBD patients were able to discontinue steroids completely and another approximately 35% of patients were able to significantly reduce their steroid dose below their previous personal threshold dose.

After the acquisition of the assets from 4SC, Immunic developed a new formulation of vidofludimus, IMU-838, containing a single polymorph of calcium vidofludimus which exhibits improved pharmacochemical and pharmacokinetic properties. Both the old and new formulations use the same active moiety to obtain their desired pharmacological effects.

Immunic has and continues to use the new IMU-838 formulation in its drug development activities. In 2017, two phase 1 studies of single or repeated once-daily doses of IMU-838 in healthy volunteers were completed and showed that repeated daily dosing of up to 50 mg of IMU-838 was safe. A phase 2b study in patients with ulcerative colitis is currently ongoing, with enrollment initiated in April 2018, and a second phase 2b trial in patients with Crohn s disease is expected to start in mid-2019. In addition, Immunic is preparing to undertake a phase 2b clinical trial of IMU-838 in patients with relapsing-remitting multiple sclerosis.

Indication: Ulcerative Colitis

Diagnosis and Prevalence

Ulcerative colitis (UC) is a chronic inflammatory disease characterized by diffuse inflammation of the mucosa of the colon and rectum. The hallmark clinical symptoms of UC are diarrhea and bloody stool, and its clinical

Table of Contents

course is marked by exacerbations and remissions, which may occur spontaneously or in response to treatment changes or intercurrent illnesses.

In a patient presenting with characteristic symptoms, stool examinations and endoscopy should be performed to confirm the presence of colitis and to exclude the presence of other diseases. Characteristic endoscopic with negative evaluation for infectious causes suggests the diagnosis of UC.

UC is most commonly diagnosed in late adolescence or early adulthood, but it can occur at any age. The occurrence of UC worldwide has increased over the past few years, particularly in Latin America, Asia and Eastern Europe. UC is not a rare disease. There are more than 700,000 patients affected in the United States as well as 1.5 million in Europe and more than 100,000 in Canada. UC is almost equally distributed between genders.

Current Treatment Options

The severity and extent of the disease are characterized based on clinical and endoscopic findings. Treatment approach often depends on disease severity and typically follows a stepwise treatment regimen. Patients with mild disease may initially receive aminosalicylates or non-systemic steroids such as budesonide. Patients with moderate to severe disease activity may receive traditional immunomodulators (such as azathioprine or 6-mercaptopurine), steroids (such as prednisone) or selective immunomodulators (such as tofacitinib). If patients have failed such therapies, treatment may be escalated to the use of biologics. The most common category of biologics includes anti-tumor necrosis factor-alpha (TNF-) antibody drugs, such as infliximab or adalimumab. New biologic options are alpha-4-beta-7 (4ß7) integrin-specific antibodies, such as vedolizumab. All biologics are injectables. Biologics are usually the most expensive treatment option and reserved for patients which have failed other therapies. The burden to the healthcare system can be seen from the fact that the originator drug of adalimumab (Humira®) had been known at its peak to have sales of more than $12 billion per year in the U.S. alone (combining all of its approved indications).

Treatment is differentiated between induction treatment (during periods of disease symptoms or following relapse) and maintenance treatment (often a long-term treatment to keep patient relapse-free). Since many UC patients fail their treatments, lose response to their treatments or develop unacceptable side effects, there is a need for safe and effective treatments with novel mechanisms. Additionally, patients prefer the convenience of oral treatments over injections. For some of the currently available oral immunomodulators (or those in clinical testing), a higher rate of infections (particularly virus re-activations) have been reported versus placebo control which can be a medically significant event.

IMU-838 is being developed to be a new treatment option for patients with moderate to severe ulcerative colitis who which have failed current therapies and are now candidates for therapy with biologics, with a novel mechanism of action for this indication.

Competition

The field of IBD, including ulcerative colitis, is a highly competitive field. Immunic competitors in the United States and elsewhere include major pharmaceutical, biotechnology and biosimilar manufacturers. Some of these competitors may have more extensive research and development, regulatory compliance, manufacturing, marketing and sales capabilities. Many competitors have greater financial resources. These companies may succeed in developing products that are more effective or more economical than any that Immunic has or may develop and may also be more successful than Immunic is in manufacturing, developing and registering products. In addition, technological advances or different approaches developed by one or more of Immunic s competitors may render Immunic s products obsolete, less effective or uneconomical.

Currently there are several new oral treatment options for UC patients in advanced clinical development. Most of them fall into two categories of either so called S1P antagonists (such as ozanimod or etrasimod) or so called

JAK inhibitors (such as upadacitinib or filgotinib). Some of these drug candidates may be approved for commercial use before IMU-838. However, depending on the results of future clinical trials, Immunic believes that IMU-838 has the potential to demonstrate medically important advantages compared with other treatments, particularly for long term therapy in UC patients, due to the selectivity of the DHODH targeting towards metabolically activated lymphocytes, the absence of general detrimental effects on bone marrow and the direct antiviral activity.

Clinical Development Plan and Ongoing Studies

Ulcerative colitis is the lead indication for IMU-838. This indication was selected by Immunic as the lead indication based upon the medical need and market size, the possibility that it could be a first-in-class DHODH inhibitor for this patient population and Immunic s ability to execute clinical trials and advance the required approval of IMU-838 for commercial use for this indication.

Immunic has prepared a clinical development plan for IBD, including ulcerative colitis, in collaboration with a group of well-known and experienced physicians from North America and Europe. Immunic also sought regulatory advice on its development program from the U.S. Food and Drug Administration, or FDA, and BfArM (*Bundesinstitut für Arzneimittel und Medizinprodukte* -the drug regulatory agency in Germany) before commencing its program. During a pre-IND meeting with the FDA in June 2017, Immunic and the FDA agreed on a development program that started with a dose-finding trial of IMU-838 in UC patients which consisted of a placebo group and three active dose groups, including a low dose to establish the lowest effective dose. At the request of Immunic, the FDA agreed that an interim dose-finding analysis of the phase 2b trial could be carried out, in order to establish whether the lowest dose(s) were potentially ineffective. Based on this analysis, the potentially ineffective doses may be discontinued, enabling the study to continue with fewer active dose groups, and complete enrollment in the trial more efficiently. A phase 2 study in Crohn s disease could then start following such interim dosing analysis of the UC study. Additionally, the FDA and Immunic agreed on safety monitoring, the definition of adverse events of special interest and study endpoints. Based on those discussions, the phase 2b study in UC patients started in April 2018 as the lead phase 2 trial of IMU-838 and is currently ongoing.

Phase 2b study in ulcerative colitis (P2-IMU-838-UC, CALDOSE-1, NCT03341962)

This is a phase 2b, dose-finding, multicenter, double-blind, placebo-controlled study including a blinded induction and maintenance phase, with double randomization (i.e., initial randomization for induction and second randomization for maintenance). The study also includes an option for an open label treatment extension for patients discontinuing from or completing blinded treatment. The primary endpoint of this study is a composite endpoint consisting of a patient-reported outcome and an endoscopy-assessed outcome, both assessed following 10 weeks of induction treatment with IMU-838 or a placebo.

The study is being conducted in approximately 85 study centers throughout ten countries (including U.S., Western, Central and Eastern Europe). Immunic has an active IND for the indication of ulcerative colitis from the FDA and the study is currently enrolling subjects in the U.S.

Study enrollment also includes a central, blinded and independent assessment of endoscopy at screening to confirm patient eligibility. Immunic believes that it has taken prudent steps to ensure that the study conduct is consistent with the study protocol even in countries with varying healthcare systems.

A total of approximately 200 patients is planned to be randomized in this study. The first patient was enrolled in April 2018 and enrollment is anticipated to continue through at least the end of 2019. Unblinded study results are expected to be published by Immunic in mid-2019.

As outlined above, an interim dosing analysis (scheduled for mid-2019) will be performed with the aim of potentially eliminating an ineffective dose group (such as the lowest active dose group) or a poorly-tolerated

dose, and to continue the study in a more efficient manner using appropriate dose groups. This analysis will be done by a blinded data review committee and Immunic will not receive general unblinded data. The interim analysis is not designed to be a futility analysis nor will the primary endpoint of the study be tested statistically. The data review committee will be asked to make a targeted recommendation regarding the discontinuation of a dose group or dose groups.

Indication: Crohn s disease

Diagnosis and Prevalence

Crohn s disease (CD) is an idiopathic chronic inflammatory disease of unknown etiology with genetic, immunologic, and environmental influences. Like ulcerative colitis, it is one of the major diseases summarized as IBD. Both diseases are caused by chronic inflammation in the gastrointestinal tract, but Crohn s disease can involve the entire gastrointestinal tract, from the mouth all the way down to the anus (but most commonly involves both the large and small intestines), whereas ulcerative colitis is restricted to the colon and rectum. Distinguishing Crohn s disease from ulcerative colitis can be challenging when inflammation is confined to the colon. Crohn s disease will involve all layers of the bowel wall, thereby causing complications such as abscesses, strictures and fistulas that regularly require surgical intervention.

The hallmark clinical symptom of Crohn s disease is chronic diarrhea and abdominal pain, however the diagnosing physician needs to integrate information regarding laboratory tests, endoscopy results, pathology findings, and radiographic tests, to arrive at a clinical diagnosis of Crohn s disease. In general, it is the presence of chronic intestinal inflammation that solidifies a CD diagnosis.

Like UC, CD is most commonly diagnosed in late adolescence or early adulthood, but it can occur at any age. Crohn s disease is not a rare disease. There are more than 600,000 patients affected in the United States as well as 1.1 million in Europe and more than 125,000 in Canada. CD is slightly more prevalent in women than in men.

Current Treatment Options

Treatment of CD is similar to UC. However, some of the therapies available for UC (such as tofacitinib) have shown no or less activity in CD. Conversely, and based on the treatment needs in CD, some drugs have been primarily developed for Crohn s disease. One such example is the biologic ustekinumab, an antibody directed against interleukin 12 and interleukin 23. There are now also some approved treatments, such as alofisel, that target the specific structural complications of Crohn s disease, including fistulas.

Competition

Most oral drugs currently in clinical development are traditionally developed for both UC and CD. Thus, the main points of the competition section of UC apply here as well. Immunic also considers CD to be a very competitive field as well.

An initial suggestion of the value of DHODH inhibition in CD patients has already been established through the off-label use of leflunomide in this patient population. Two small investigator trials of leflunomide in CD patients have been published showing that a DHODH inhibitor can have activity for treating moderate to severe CD patients that have failed or are intolerant to traditional immunomodulator therapy. However, the side effect profile included diarrhea. The prescribing information for teriflunomide, a compound related to leflunomide and approved for patients with multiple sclerosis, lists a 13-14% rate of diarrhea which makes it one of the most prevalent side effects of this

DHODH inhibitor. Immunic believes that despite the findings of efficacy for leflunomide in the investigator trials in CD patients, the side effect profile makes it unlikely that this type of DHODH inhibitor can be developed in the indication of IBD, and particularly in Crohn s disease.

Based on prior clinical data in subjects with RA, Immunic believes that IMU-838 will not exhibit a significant increased incidence of diarrhea in subjects with IBD, and is therefore potentially the first DHODH inhibitor to be developed for this indication, depending on the findings from future clinical trials.

Current Development Plan and Ongoing Studies

Crohn s disease is the second indication for IMU-838. During the previously noted discussions with the FDA, Immunic had reached agreement that the phase 2b study of IMU-838 in CD could commence when the interim dosing analysis for the phase 2b CALDOSE-1 study in UC had been completed. This would also allow Immunic to execute this trial with the likely two remaining active dose groups from CALDOSE-1 and placebo thereby allowing more efficient recruitment into this trial. Immunic had also received additional written advice from the FDA regarding patient-reported outcomes to be used in this phase 2b trial. The phase 2b study of IMU-838 in CD (CALDOSE-2) is currently in the start-up phase

Phase 2b study in Crohn s disease (P2-IMU-838-CD, CALDOSE-2)

This is a phase 2, dose-finding, multicenter, double-blind, placebo-controlled, randomized, parallel-group trial with randomization of CD patients into the active dosing arms that are determined based on the interim dosing analysis of the UC study, or placebo. The blinded study period will include a 14-week induction treatment phase and an extended blinded treatment phase of an additional 24 weeks, with an option for an open label treatment extension for patients discontinuing from or completing blinded treatment. Approximately 260 patients are planned to be randomized for this study. Approximately 75 to 95 centers in up to 13 countries will participate in this trial. For operational and financial synergies, the service providers, systems and performing study centers from CALDOSE-1 study in UC patients will also be used in this trial.

The study will again include study sites in the U.S., Western, Central and Eastern Europe. Immunic plans to submit an IND for Crohn s disease to the FDA and applicable submissions in Europe to conduct this trial.

The primary endpoint in this study is expected to be a patient-reported outcome endpoint and the key secondary endpoint is expected to be an endoscopy-based assessment, both evaluated after 14 weeks of treatment. Study enrollment also includes a central, blinded and independent assessment of endoscopy at screening to confirm patient eligibility.

Patient enrollment is expected to start in mid-2019 and is estimated to last for approximately 20 months. Unblinded data from this trial is expected to be reported by Immunic in the second half of 2021.

Indication: Multiple Sclerosis

Diagnosis and Prevalence

Multiple sclerosis (MS) is an autoimmune disease that affects the brain, spinal cord and optic nerve. In MS, the coating that protects the nerves (myelin) is attacked by immune cells and damaged. Thus, MS is considered an immune-mediated demyelinating disease of the central nervous system (CNS). It is a progressive disease and without effective treatment the disease will lead to severe disability. Immunic is currently planning to develop IMU-838 for the treatment of relapsing-remitting MS, or RRMS, the most common form of MS. Approximately 85% of patients with MS are expected to develop RRMS, with some of these patients later developing other and more severe forms of the disease. RRMS is characterized by clearly defined attacks of new or increasing neurologic symptoms. These relapses are followed by periods of partial or complete recovery (remissions). During remissions, all symptoms may

disappear, or some symptoms may continue and become permanent.

MS is a disease with unpredictable symptoms that can vary widely. Common early signs of MS include vision problems, tingling and numbness or other unspecific neurological symptoms. Diagnosis of MS is confirmed via

blood tests and a lumbar puncture (spinal tap), in which a small sample of fluid is removed from the spinal cord. However, most important for diagnosis are characteristic CNS lesions found in Magnetic Resonance Imaging (MRI).

Multiple sclerosis is not a rare disease. It affects more than 400,000 people in the United States, and more than 2.3 million people have MS worldwide. The disease has a large economic impact as it effects mainly young adults in the prime working age, although MS can occur in young children and significantly older adults. MS is at least two to three times more common in women than in men.

In the United States, annual direct (health-related) costs are estimated to be $24,000 or more for people living with MS compared with those without MS.

Current Treatment Options

There are currently two main types of RRMS treatments. Some therapies are used for treating relapses of MS symptoms, these are mostly short-term corticosteroid medications. Other approaches are used as long-term treatments to reduce the number of relapses. The latter are referred to as disease-modifying therapies. IMU-838 is intended to be developed as a disease-modifying therapy for RRMS.

The main first line treatment options for RRMS patients are beta interferons (either as interferon beta-1a or interferon beta-1b) or glatiramer acetate. These are all given by injection. For patients requiring more advanced treatment options there are now several oral medications (such as dimethyl fumarate, fingolimod and cladribine) and biologics (such as natalizumab and alemtuzumab) approved for commercial use.

In late 2012, teriflunomide, an orally available DHODH inhibitor, was approved by the FDA for the treatment of patients with RRMS. Teriflunomide had shown significant efficacy across key measures of MS disease activity, including reducing relapses, slowing the progression of physical disability, and reducing the number of brain lesions as detected by MRI. Currently, global sales of teriflunomide in 2017 (Aubagio®) were approximately $1.8 billion. In 2017, Sanofi reached settlement with the 20 generic Aubagio® ANDA first filers granting each a royalty-free license to enter the United States market on March 12, 2023.

The clinical data of teriflunomide leading to regulatory approval and its commercial success established the use of DHODH inhibition and its effectiveness in RRMS. However, teriflunomide s prescribing information include diarrhea in 13-14% of patients, hair loss (alopecia) in 10-13% of patients, and neutropenia in 4-6% of patients. Those are usually adverse effects seen in many cancer therapies. Leflunomide (and its active metabolite teriflunomide) is known to show several off-target effects at therapeutically relevant concentrations, including inhibition of kinases such as epidermal growth factor receptor tyrosine kinase. In contrast, the active moiety of IMU-838 has not been shown yet to be an inhibitor of kinases at doses of up to 300 μM, a concentration largely exceeding therapeutically necessary concentrations. Immunic has not observed any increased rates of diarrhea, alopecia or neutropenia in its clinical trials to date. The blood half-life of teriflunomide in RRMS patients was estimated to be 18 and 19 days after repeated daily doses. This long half-life may lead to the need for accelerated elimination with cholestyramine when a patient requires quick drug discontinuation (for example for change of therapies or when a patient becomes pregnant). In phase 1 studies, IMU-838 was found to have a blood half-life of 30-40 hours allowing quick elimination of the drug at a required treatment discontinuation. Based on these differences between teriflunomide and IMU-838, and depending on the results of future clinical trials, Immunic believes these IMU-838 has the potential to demonstrate medically important advantages compares with teriflunomide, particularly for a drug class that is potentially intended for long-term therapy in RRMS patients.

Competition

Ozanimod is an investigational, oral, selective sphingosine 1-phosphate (S1P) receptor modulator that had performed two phase 3 clinical trials in RRMS (SUNBEAM and RADIANCE trials). Both trials evaluated the

efficacy and safety of ozanimod versus interferon beta-1a in patients with RRMS and had shown an advantage in annualized relapse rate. In early 2018, Celgene had received an FDA-issued Refusal to File letter regarding some insufficient data. Celgene announced its intention to re-submit the NDA in 2019. In general, approval for Ozanimod as an additional oral treatment option in RRMS patients is expected in 2020.

Many drugs approved for patients with RRMS have reported a rare and often lethal viral disease of the brain called progressive multifocal leukoencephalopathy (PML). Many disease-modifying therapies alter how the immune system functions, including its ability to effectively fight viral infections. As a result, people who take these therapies are at higher risk for John Cunningham virus infection or re-activation, which is believed to be the cause of PML. To date, occurrences of PML have been reported in individuals with RRMS treated with natalizumab, dimethyl fumarate, and fingolimod. Of note is that no case of PML has been reported for the DHODH inhibitor teriflunomide. This has been one of the key differentiators of teriflunomide from other disease-modifying therapies in RRMS. The active moiety of IMU-838 has also shown direct antiviral effects in several models of virus-infected cells and this is believed to be the result of DHODH inhibition. Immunic believes that this class effect of the DHODH inhibitors can be an important potential differentiator against other drug classes in RRMS. However, this has to be confirmed in future clinical trials and long-term use of IMU-838.

Current Development Plan and Ongoing Studies

The indication RRMS is an additional clinical indication for IMU-838 that will be pursued by Immunic. The phase 2 clinical trial design in RRMS is defined and depends on well-established MRI endpoints. Additionally, the phase 2 study results for teriflunomide have been extensively published and these results had been used by Immunic for study design and statistical assumptions. For this reason, detailed expert consultation had been done but no formal regulatory advice has been sought to date for the phase 2 study of IMU-838 in RRMS. The following study is currently in the start-up phase.

Phase 2b of IMU-838 in RRMS (P2-IMU-838-MS, EMPhASIS)

This is a phase 2 dose-finding, multicenter, double-blind, placebo-controlled, randomized, parallel-group trial to assess the efficacy and safety of IMU-838 in patients with RRMS and evidence of active disease. The trial is expected to consist of a blinded 24-week main treatment period, during which five MRI examinations will be performed. The primary endpoint of this study will be MRI-based, the cumulative number of combined unique active MRI lesions up to Week 24. Patients discontinuing or completing the blinded treatment phase have an option to enroll in a long-term open-label extended treatment.

The study will be performed in about 40 study centers in four countries of Central and Eastern Europe. About 200 patients with RRMS are expected to be randomized. Patient enrollment is expected to commence in the first half of 2019 and continue for about 18 months. Unblinded data from this trial is expected to be reported by Immunic in the fourth quarter of 2020 or the first quarter of 2021.

Other studies (investigator studies)

Immunic is also exploring the use of IMU-838 in orphan diseases that may allow an accelerated path to commercialization of IMU-838. Immunic is investigating such orphan diseases in relationship with investigators that are interested in performing feasibility studies in such rare conditions.

Primary sclerosing cholangitis (PSC) is a very rare liver disease in which the bile ducts in the liver become inflamed, narrow and prevent bile from flowing properly. The exact cause and disease mechanism are still unknown but an

autoimmune mechanism may play a role. There is an association with IBD, most often with ulcerative colitis and less commonly with Crohn s disease. This is a rare disease and current prevalence is about four in 100,000. This is a progressive disease and estimated time from diagnosis of PSC to death or liver transplant was shown to be less than 15 years.

Table of Contents

The treatment of PSC is supportive, monitoring the progression of the disease and treating symptoms and complications as they arise. The only substantial treatment is liver transplantation, which may be an option when the disease progresses to cirrhosis and the liver function is affected.

When some of the larger bile ducts become blocked, there is potential to open them with endoscopy-based methods (called endoscopic retrograde cholangiopancreatography), balloon dilatation or stent placement. No medication is currently approved to treat PSC, but medications may be used to control symptoms. Although many trials have failed to meet their endpoints in PSC, there are now a few studies for medications (such as obeticholic acid, or OCA) that have shown limited activity in PSC.

Immunic has entered into a collaboration with a prominent hepatologist in the United States to explore the use of IMU-838 in PSC. The primary investigator had applied for an NIH grant and received a funding letter in the third quarter of 2018. Immunic expects to support this study by providing IMU-838 and reference to its active IND. The primary investigator has already secured an investigator IND and IRB approval to conduct the study summarized below.

Investigator Initiated Proof of Concept Study of IMU-838 in PSC

This is a single arm, open-label, exploratory study in IMU-838 in 30 patients with PSC. The primary endpoint is the change in alkaline phosphatase (AP) between baseline and six months. The study will be conducted in two Mayo Clinic locations in the U.S., both of which are tertiary care centers for PSC patients. The first patient is expected to be enrolled in the first quarter of 2019 and enrollment may continue for approximately six to nine months. Since this is an open-label study, first indications of activity may be available by end of 2019, however the full study results are not expected to be available until the second quarter of 2020.

Registration Plan

All of Immunic s drug development candidates require approval from the FDA and corresponding agencies in other countries before they can be marketed for sale. The activities required before drugs or biologics may be marketed in the United States include:

- preclinical laboratory tests, in vitro and in vivo preclinical studies and formulation and stability studies;
- the submission to the FDA of an application for human clinical testing, which is known as an Investigational New Drug, or IND, application;
- adequate and well-controlled human clinical trials to demonstrate the safety and effectiveness of the drug;
- the submission of a New Drug Application, or NDA, for a drug; and
- the approval by the FDA of a NDA or BLA.

The FDA reviews all available data relating to safety, efficacy and quality and assesses the risk/benefit of a product before granting approval. The data assessed by the FDA in reviewing a NDA includes animal or pre-clinical testing data, chemistry, drug-drug interaction data and manufacturing controls data and clinical safety and efficacy data.

For marketing outside the United States, Immunic would be subject to foreign regulatory requirements governing human clinical testing and marketing approval for its products. These requirements vary by jurisdiction, differ from those in the United States and may require Immunic to perform additional pre-clinical or clinical testing regardless of whether FDA approval has been obtained. The amount of time required to obtain necessary approvals may be longer or shorter than that required for FDA approval. In many countries outside of the United States, coverage, pricing and reimbursement approvals are also required.

Immunic currently plans to start or continue three different phase 2 trials for IMU-838 in the indications UC, CD, RRMS and one investigator-initiated study in PSC. If any of these studies meet their primary endpoint and show general safety and efficacy for IMU-838, pivotal trials are expected to be started either by Immunic itself or by Immunic in collaboration with a partner. For most indications listed above, marketing approval would require two successful, well-controlled phase 3 studies. This would require a large financial and resource investment for Immunic and is expected to take several years to complete. In parallel, additional preclinical and clinical investigations need to be conducted in preparation for a filing, including for example additional pharmacological studies in special populations or drug-drug interaction studies. There are also additional steps required to develop and validate large-scale manufacturing capabilities as well as manufacturing controls.

The FDA may grant accelerated approval for drugs that address life-threatening diseases without effective therapies, based on findings from surrogate endpoints reasonably expected to predict clinical outcomes. Additionally, the FDA may grant orphan status for drugs that address high unmet medical needs in rare diseases. Accordingly, one indication with the potential for an accelerated path towards commercial approval may be PSC. Based on the rarity of this event, the life-threatening nature and the lack of effective therapies, the FDA and other regulatory agencies may agree to an abbreviated development plan, including the possibility of only one single open-label pivotal trial. However, this needs to be discussed with regulatory agencies once proof-of-concept data in PSC are available for IMU-838. This approval may require Immunic to study dosing of IMU-838 in a liver impaired patient population.

Manufacturing and Formulation

IMU-838 is provided as white, uncoated tablet. Dose strengths for clinical trials are 5 mg, 15 mg, 22.5 mg, and placebo. The tablets are packaged in 30 mL *polyethylene* bottles containing 85 tablets each. IMU-838 has been synthesized in batches up to 18 kg, or approximately 40,000 tablets at the 22.5 mg or highest dose.

Commercialization Strategy

Ulcerative colitis and Crohn s disease are prevalent in the Western population, almost 4.1 million patients suffer from IBD in the U.S., Europe and Canada. Worldwide, around 11.2 million patients are affected. In total, the global market for IBD is estimated to be $7.6 billion in 2023 and it is expected to grow.

In the IBD market, Immunic believes that there is a clear unmet need for oral, safe, steroid-sparing non-biologics with potential to induce and maintain remission. Immunic believes that current treatment options for IBD are inadequate to satisfy this need as:

- 1st-line treatments (steroids) are effective for short-term induction treatment but may cause long-term systemic side effects (if steroids cannot be discontinued without recurrence).

- 2nd and 3rd-line options do not provide sufficient response in light of their risk profile (e.g., azathioprine, anti-TNFs), are expensive and inconvenient (anti-TNFs, anti-integrins).

Tofacitinib (product name: Xeljanz, marketed by Pfizer and Takeda) is a first-in-class inhibitor of kinases called JAK kinases. Tofacitinib is particularly active on the isoform JAK3. Based on two phase 3 trials, tofacitinib was approved in 2018 in the U.S. and Europe for the treatment of UC. The European Medicines Agency (EMA) refused to grant approval for Xeljanz for the treatment of RA based on the side effect profile.

Since IBD is still a substantially underserved market, a couple of innovative late stage projects are currently in phase 3 and phase 2 testing in patients with UC and/or CD.

Filgotinib: A selective JAK1 inhibitor developed by Gilead and Galapagos delivered promising clinical phase 2 data in a clinical trial of ulcerative colitis. However, Filgotinib led to a substantial number of herpes zoster virus reactivations in patients which may have a negative impact on the number of patients treated with this drug, if it is approved in the future.

Table of Contents

Ozanimod: a potentially best-in-class S1P1 receptor agonist was developed by Receptos and was acquired by Celgene in a $7.2 billion USD acquisition. Ozanimod completed phase 3 testing in relapsing remitting multiple sclerosis (RRMS) and is currently tested for UC and CD.

Further relevant immuno-modulators are in late stage development for UC and CD. These include some S1P targeting drugs and JAK/TYK2 inhibitors. Immunic is not aware of other DHODH inhibitors currently in development for IBD. Immunic believes that the only approved DHODH inhibitor, Aubagio and its predecessor molecule Arava, cannot be successful for IBD, since one of the major side effects is diarrhea.

A recent unpublished report by the National Multiple Sclerosis Society suggests that the prevalence of MS in the U.S. is about 1 million.

Even though the U.S. prevalence of MS is potentially higher, the number of diagnosed patients remains at about 400,000 patients. The incidence of MS is 10,000 15,000 patients per year in the U.S. Of the approximately 400,000 patients diagnosed with MS, about 85% are diagnosed with Relapsing-Remitting disease (RRMS). Of the RRMS patients diagnosed, around 82% are treated for their disease. MS affects twice as many women and men and is more common in areas inhabited by people of northern European ancestry, i.e. in Europe, the United States, Canada, New Zealand and parts of Australia. MS symptoms typically appear during young adulthood, peaking around 30 years old.

The global MS market in expected to be worth $27.38 billion by 2025, expanding at a 6.35% CAGR from 2017 2025. The U.S. holds the largest portion of the global market share which is expected to continue to rapidly grow due to the increasing incidence of MS, technological advances, and rising drug costs in the U.S. Though the treatment landscape is saturated for RRMS, unmet medical need remains high and is a main driver for new pipeline entrances. Oral, small molecules are seeing the fastest growth in the market due to their increased patient convenience.

Intellectual Property, Licenses and Royalties

IMU-838 is covered by four layers of patents and applications all either granted or filed in the U.S., EU and other territories.

Immunic s first layer of protection over IMU-838 is a granted patent claiming the composition of matter of IMU-838 s predecessor molecule vidofludimus, the free acid form of IMU-838. This patent is granted in most major markets and expires in 2022 in most of these jurisdictions. A second layer of applications was filed to cover IMU-838 s active ingredient, the calcium salt of vidofludimus. These applications are granted in some jurisdictions and cover IMU-838 until 2031, and U.S. Patent Term Extension and/or European Supplementary Protection Certificates could provide prolonged protection from generic entry up to 2036, depending on NDA submission time and IND filing in the U.S. and analogous filings in the EU. A third layer consists of patent applications filed in early 2018 and directed to a method of production of the clinical material for IMU-838, including a newly-identified, specific polymorph of IMU-838. Finally, a patent application covering a dosing schemes currently used with IMU-838 was filed in 2017, based on unexpected findings from phase 1 and preclinical investigations. If issued, this patent could extend patent protection for IMU-838 to 2038.

IMU-838 and IMU-935 were acquired in a transaction with the originator 4SC AG in April 2016. As part of the transaction, 4SC is entitled to receive a royalty on net sales if products originating from this contract achieve market approval.

IMU-935

Mechanism of Action and Key Mechanistic Data

IMU-935 is a potent inverse agonist of RORgt with an IC50 (the concentration of drug that inhibits 50% of the activity of the target) of around 20 nM. The target RORg (RORC) is a key regulator of T-cell differentiation to

TH17 cells and is the crucial transcription factor for the genes encoding IL-17A and IL-17F. In addition, IMU-935 also is a moderate inhibitor of DHODH which offers the opportunity to increase the therapeutic window of IMU-935 compared with pure RORC inhibitors by a substantial amount. In preclinical testing, it was shown, that IMU-935 is a potent inhibitor of IL-17A / IL-17F as well as an inhibitor of Th17 differentiation. Furthermore, IMU-935 inhibits inflammatory cytokines such as IFN-g and TNFalpha. In several test systems, IMU-935 has demonstrated dose dependent efficacy in psoriasis IL-17F and IBD animal models

RORgt is a very attractive target in the field of autoimmune diseases since this is the key transcription factor and nuclear receptor for regulation of Th17 cell differentiation and production of the IL-17 family of cytokines. The imbalance between regulatory T cells and Th17 cells is one hallmark of autoimmune diseases, and by preventing differentiation towards Th17 cells and impairing their function, IMU-935 targets this imbalance in a beneficial manner. Therefore, IMU-935 has the potential to target a high unmet need for safe and cost-effective oral treatments in psoriasis and other autoimmune disorders.

The clinical effect of targeting RORgt has been demonstrated in several clinical trials of competing RORgt modulators. Some molecules progressed to clinical stage, however only a limited number of products have achieved phase 2 clinical stage, to date.

One of the hypothetical risks of drugs targeting RORgt arose from prior research suggesting that RORgt could act as a biological link between IL-17 production and both thymocyte development and Th17 cell differentiation. More recent research published in Nature Immunology in 2017 suggests that these functions are mediated by different parts of the RORgt protein. In light of these findings, IMU-935 was analyzed to study its effect on thymocyte maturation and IL-17 production. In this research, IMU-935 demonstrated potent inhibition of IL-17 production at low concentrations, without effect on thymocyte maturation at either low or higher concentrations. As a result, Immunic does not anticipate that treatment with IMU-935 will be associated with an increased risk of T-cell malignancies.

Indication Psoriasis

Diagnosis and Prevalence

Psoriasis is a chronic inflammatory disease of the skin with unknown etiology that leads to hyperproliferation of keratinocytes and endothelial cells. Most mechanistic data support the hypothesis that psoriasis is an autoimmune disease driven by activated T-lymphocytes which then release cytokines, chemokines, and pro-inflammatory molecules into the dermis and epidermis.

Psoriasis is characterized clinically by development of red, scaly, itchy, symmetrical, dry plaques located typically on skin overlying the elbows, knees, lumbar area, and scalp. Plaques vary from a few millimeters in diameter to a few centimeters and can be localized to a specific area or extend over most of the body surface.

Psoriasis is not a rare disease. The disease prevalence varies between geographic regions. Studies of psoriasis in the United States suggest prevalence rates between 1.0% and 3.6%. Psoriasis is considered equally prevalent between genders. Psoriasis can occur at any age. However, there seems to be a bimodal distribution of the age of disease onset with a first peak between 16 and 22 years, and the second peak between 57 and 60 years of age.

Current Treatment Options

Current treatments for patients with psoriasis include topical therapies, oral therapies and biologics. Topical therapies, such as corticosteroids and vitamin D3 analogues reduce inflammation, which slows the proliferation of keratinocytes

and reduces itching. Oral therapies target anti-inflammatory processes and include methotrexate, cyclosporine, apremilast, and tofacitinib. Biologics block proteins produced by keratinocytes, dendritic cells, Th17 lymphocytes, or other immune cells. Examples include anti-TNF biologics such as infliximab, etanercept

and adalimumab. More recently approved monoclonal antibodies, such as secukinumab, ixekizumab, and brodalumab have been developed to target the pro-inflammatory cytokine interleukin 17 (IL-17). The IL-17 antibodies have largely revolutionized the therapy of patients with moderate to severe psoriasis as they have achieved skin clearance rates never seen before.

IMU-935 would need to be positioned in patients with moderate to severe psoriasis as an oral and more convenient treatment option and using a mechanism of action and efficacy that approximates those of IL-17 antibodies.

Competitors

The biopharmaceutical industry is intensely competitive and is subject to rapid and significant change. Immunic faces competition from other pharmaceutical and biotechnology companies, research institutions and other organizations.

Currently, several RORgt inverse agonists are in preclinical development, but only a few are in clinical development. To Immunic s knowledge, these are:

- Molecule in phase 1 (Bristol Myers Squibb)
- JTE-451 phase 1 (Japan Tobacco)
- GSK-2981278 in phase 2 psoriasis (GlaxoSmithKline)
- ARN-6039 in phase 2 (Arrien Pharmaceuticals)
- INV-17 in phase 1 (Innovimune Biotherapeutics)

Immunic believes that IMU-935 is a unique modulator of the RORgt as compared to previous and current competitors because of the following reasons:

- IMU-935 is an inverse agonist (and not an antagonist) and is not able to completely block RORgt activity and allows a small remaining RORgt activity to support normal T-cell maturation. This may avoid unwanted side effects.
- Because IMU-935 blocks two different separate pathways of Th17 cells (RORgt, DHODH), it was shown to have single nanomolar activity of inhibition of cytokine release in human peripheral blood mononuclear cells (PBMC). Given these properties, IMU-935 should provide a reasonable therapeutic window between an effective dose and an intolerable dose.

Clinical Development Plan and Planned Studies

The current development plan for IMU-935 focuses on two short term goals: (i) to rapidly obtain human safety data for IMU-935 in order to evaluate the safety profile of this development candidate, and (ii) to effectively obtain some preliminary clinical activity data using safe doses.

Immunic intends to perform early clinical trials, including single-dose and multiple-dose trials, through its Australian subsidiary. This is expected to allow an accelerated start of first-in-man studies due to regulatory requirements and processes in Australia. Immunic has already selected a clinical research organization, or CRO, in Australia and is currently preparing documents for submission to local ethics committees. Based on current timelines, Immunic expects to start first-in-man trials mid to late 2019. Immunic plans to conduct the studies summarized below using IMU-935.

Phase 1 single ascending dose study (P1-IMU-935-SAD)

This would be a double-blind, placebo-controlled study with four or five ascending dose levels of IMU-935. A single dose of study drug would be investigated. Safety and pharmacokinetic properties would be assessed in healthy volunteers. One dose level would evaluate intra-individual differences between fast and fed conditions.

Table of Contents

Phase 1 multiple ascending dose study (P1-IMU-935-MAD)

This would be a double-blind, placebo-controlled study with two ascending dose levels of IMU-935. Study drug would be given daily for 14 consecutive days. Safety, pharmacodynamic and pharmacokinetic properties would be assessed in healthy volunteers.

Phase 2a study in psoriasis patients (P2a-IMU-935-PS)

This would be a double-blind, placebo-controlled study with partial parallel group design. Study drug would be given daily over 28 consecutive days in patients with psoriasis. The change in Psoriasis Area and Severity Index (PASI) score would be evaluated as change from baseline and comparing two active dose groups to placebo. Additionally, safety and drug trough levels would be assessed. It is expected that this study would provide an early indication of potential activity of IMU-935 in psoriasis patients.

Other Studies (orphan indications)

Immunic believes that the mechanism of action of IMU-935 may also support its evaluation for the treatment of potential orphan indications, such as systemic lupus erythematosus (SLE), autoimmune hepatitis, type I diabetes and inflammatory eye disorders such as dry eye syndrome and uveitis. Immunic is currently investigating various options for developing IMU-935 in such orphan indications; however, no decision has been made to date regarding the most appropriate orphan indication. Discussions with medical experts to identify the best option are ongoing. An orphan indication would potentially offer an accelerated path to commercialization.

Manufacturing and Formulation

IMU-935 is a small molecular weight compound and was successfully synthesized in a kilogram scale. Single ascending dose and multiple ascending dose studies are expected to be supplied via a capsule formulation.

Commercialization Strategy

According to the World Health Organization, psoriasis, a common chronic autoimmune disorder of the skin, causing redness, irritation and scaly lesions, affects up to 5% of the world s population. Approximately 12 million people in the U.S. have psoriasis; of these, an estimated 7.5 million have been diagnosed with the skin disease and an estimated 50-60% of diagnosed patients are actively being treated.

Intellectual Property, Licenses and Royalties

Immunic filed a patent application covering composition of matter for IMU-935 and related molecules in September 2017 with the European Patent Office, and this application entered the international phase in September 2018. Assuming this patent issues with sufficient claim coverage, IMU-935 is expected to be under patent protection until 2037, with further extension possible.

All of Immunic s rights to IMU-838 and IMU-935 were acquired in a transaction with 4SC AG in April 2016. As part of the transaction, Immunic is required to pay 4SC a royalty on net sales of relevant products.

IMU-856

Mechanism of Action and Key Mechanistic Data

The target for IMU-856 is a novel and yet undisclosed mechanism to regulate bowel wall barrier function.

Current Treatment Options Target the Immune System

IBD is a chronic, inflammatory disorder characterized by transmural inflammation of a part (UC) or the whole gastrointestinal tract (CD). IBD is defined by relapsing and remitting episodes with progression over time to complications, including intestinal ulcers and bleeding.

Current treatments of IBD includes the use of 5-ASAs, corticosteroids, traditional or selective immunomodulators or biologics. All those therapies have in common that they focus on down-regulating the abnormal and sustained immune response that is found in IBD. Therapies in IBD are often long-term therapies. Due to the down-regulation of the immune response in these patients, existing IBD medications that target the immune system are often associated with significant side effects, such as bone marrow suppression, increased rates of infections (including virus re-activations) or even secondary malignancies.

The Initial Inflammatory Event in IBD

The current hypothesis regarding the onset of IBD involves an impaired bowel wall barrier function as the central element of the pathophysiology. In healthy bowel wall, bacteria cannot pass from the lumen to the lamina propria because tight junctions are maintained between the epithelial cells (intact barrier function of the bowel wall). However, in response to environmental or genetic factors, bowel wall barrier function may be weakened, allowing bacteria to pass through and enter the bowel wall, where immune cells recognize the bacteria. This will trigger an initial inflammation event. It is hypothesized that in IBD patients, the initial inflammatory response is abnormally sustained from lack of efficient apoptosis of immune cells, but this is not yet fully understood. Ultimately, patients then develop a chronic and systemic immune response. The presence of certain bad bacteria , which may contain certain epitopes in the microbiota, or the overall makeup of the microbiome, which lack good bacteria , are also known to contribute to the sustained and overshooting inflammation in IBD.

Dysfunction of Bowel Wall Barrier Function May Be a Precursor to Relapse

It is also known that the microbiome of IBD patients is altered, a condition known as dysbiosis, as the composition of the microbiota begins to favor bad bacteria more than protective species. Several studies have indicated that the bacteria begin to have more pro-inflammatory properties compared to anti-inflammatory properties. However, loss of bowel wall barrier presents the critical and essential entry for any bacteria. Additionally, it has been shown that IBD patients in endoscopic remission still display IBD symptoms if bowel tight junction function is not normalized. Episodes of impaired bowel wall barrier function is also correlated with relapse weeks later.

Targeting the Disease-Causing and Sustaining Processes

Current treatments are aimed at inhibiting this inflammation, but they are not targeting the disease and relapse-causing trigger of the impaired bowel wall barrier function. IMU-856 specifically targets pathways known to impact bowel wall barrier function and is aimed to normalize such function. Immunic hypothesizes that normalized bowel wall barrier function may avoid bacterial triggers and thereby remission can be maintained without significantly influencing the immune competency of the patient.

If supported by data from future clinical trials, Immunic plans to position IMU-856 as a safe long-term treatment for IBD patients in symptomatic remission to maintain remission and avoid relapse. The initial indication may be Crohn s disease as this disease is known to have more complications requiring surgical or other interventions when deep remission cannot be maintained long-term for the patient.

Clinical Development Plan and Planned Studies

Immunic expects to perform early clinical trials, including single-dose and multiple-dose phase 1 trials, through its Australian subsidiary. This is expected to allow an accelerated start of first-in-man studies due to regulatory requirements and processes in Australia. The development activities for IMU-856 are intended to largely follow established processes and service provider relationships established for the IMU-935 development program. This may

also lead to operational and financial synergies in study preparation and execution.

Based on current project timelines, Immunic expects to start first-in-man trials potentially as early as the first half of 2020, however this depends on the progress of manufacturing required amounts of the active drug. Immunic plans to conduct the studies summarized below using IMU-856.

Table of Contents

Phase 1 single ascending dose study (P1-IMU-856-SAD)

This would be a double-blind, placebo-controlled study with four or five ascending dose levels of IMU-856. A single dose of study drug would be investigated. Safety and pharmacokinetic properties would be assessed in healthy volunteers. One dose level would evaluate intra-individual differences between fast and fed conditions.

Phase 1 multiple ascending dose study (P1-IMU-856-MAD)

This would be a double-blind, placebo-controlled study with two ascending dose levels of IMU-856. Study drug would be given daily for 14 consecutive days. Safety, pharmacodynamic and pharmacokinetic properties would be assessed in healthy volunteers.

Phase 2a study in Crohn s disease patients (P2a-IMU-856-CD)

This would be a double-blind, placebo-controlled study with partial parallel group design. Study drug would be given daily over 28 consecutive days in patients with Crohn s disease that were screened for impaired bowel wall barrier function using oral dyes. The change in bowel wall barrier function using would be evaluated as change from baseline and comparing one or two active dose groups to placebo. Additionally, safety and drug trough levels would be assessed.

It is expected that this study would provide an early indication for IMU-856 of improvement by measuring barrier function surrogate markers in Crohn s disease patients.

Phase 2b study in Crohn s disease patients (P2b-IMU-856-CD)

This would be a double-blind, placebo-controlled study evaluating CD patients that are either already in steroid-induced symptomatic remission or will receive steroids to induce remission. Patients in remission will be randomized to receive several doses of IMU-856 or placebo for 40 weeks. The primary endpoint would potentially be annualized relapse rate or endoscopic remission as surrogate endpoint.

IMU-856 is a novel, orally available small molecule aiming at a yet undisclosed target which was identified to be involved in the initiation and relapse of IBD. The mechanism of action targets the restoration of the intestinal barrier function in IBD patients. This concept has the potential to avoid suppression of immune functions and should therefore allow for the maintenance of immune surveillance in patients.

IMU-856 is currently in advanced preclinical testing. Immunic currently expects IMU-856 to enter clinical trials in the first half of 2020.

Manufacturing and Formulation

IMU-856 is a small molecular weight compound and is currently synthesized in kilogram scale.

Commercialization Strategy

IMU-856 has the potential to be participate in a new category of IBD treatments focusing on normalizing bowel wall barrier function. The likely focus of product differentiation will be on safe long-term treatment to avoid disease relapse. Additionally, IMU-856 is targeting the intestinal barrier function and not directly immune regulation, which may lead to a safety profile different from current immunomodulatory therapies.

As discussed above, IBD is an indication which effects 11.2 million patients affected by UC or CD worldwide in 2015. Oral treatment options which are safe and efficacious are urgently needed to offer these patients new safe treatments options.

Table of Contents

Intellectual Property, Licenses and Royalties

On November 5, 2018 Daiichi Sankyo, Tokyo, Japan, and Immunic AG entered into an option and licensing agreement that grants Immunic an exclusive global option to license IMU-856 and related molecules. This option includes exclusivity on a patent application filed by Daiichi Sankyo in early 2018, covering IMU-856 s composition of matter.

In addition to an option execution fee and some smaller development milestone payments, Daiichi Sankyo will receive sales-based milestone payments and a royalty rate on net sales.

Table of Contents

MANAGEMENT S DISCUSSION AND ANALYSIS OF

FINANCIAL CONDITION AND RESULTS OF OPERATIONS OF VITAL THERAPIES

The following discussion and analysis of financial condition and results of operations should be read together with the section entitled Selected Historical and Unaudited Pro Forma Combined Financial Information Selected Historical Consolidated Financial Data of Vital Therapies in this proxy statement/prospectus and the consolidated financial statements of Vital Therapies and accompanying notes appearing elsewhere in this proxy statement/prospectus. This discussion of the financial condition and results of operations of Vital Therapies contains certain statements that are not strictly historical and are forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995 and involve a high degree of risk and uncertainty. Actual results may differ materially from those projected in the forward-looking statements due to other risks and uncertainties that exist in Vital Therapies operations, development efforts and business environment, including those set forth in the section entitled Risk Factors Risks Related to Vital Therapies in this proxy statement/prospectus, the other risks and uncertainties described in the section entitled Risk Factors in this proxy statement/prospectus and the other risks and uncertainties described elsewhere in this proxy statement/prospectus. All forward-looking statements included in this proxy statement/prospectus are based on information available to Vital Therapies as of the date hereof, and Vital Therapies assumes no obligation to update any such forward-looking statement.

Overview

Vital Therapies is a biotherapeutic company that has been developing a cell-based therapy targeting the treatment of acute forms of liver failure. Our initial product candidate, the ELAD System, or ELAD, is a human-cell-based, bio-artificial liver, which was being developed to improve rates of survival among patients with acute forms of liver failure. Since inception, we have devoted essentially all of our efforts to product development, clinical testing and pilot manufacturing and have not recognized revenues from our planned principal operations.

In September 2018, we reported top-line data from a phase 3 clinical trial of ELAD, VTL-308, in 151 subjects with severe alcoholic hepatitis. Although there was a numerical improvement in survival in the ELAD-treated group between three months and one year following randomization, the study failed to meet the primary endpoint of a significant improvement in overall survival through at least ninety-one days. The secondary endpoint of the proportion of survivors at study day ninety-one also showed no statistically significant difference between the groups.

Considering these results, we do not believe the ELAD System can be approved in the United States or the European Union without additional clinical trials, if ever, and that such clinical trials would require substantial capital and time to complete. Consequently, we have ceased any further development of the ELAD System for the United States and Europe, substantially reduced our workforce, discontinued most of our supply and service agreements, and shifted our strategic focus to identifying and exploring strategic alternatives including a merger, an acquisition or sale of assets or even a dissolution and liquidation of the company.

Our business, operating results, financial condition and prospects are subject to significant risks and uncertainties. As we currently have no commercial products or products in later stage development, it may be difficult to secure additional funding in light of these risks and circumstances. There can be no assurance any transaction will result from our evaluation of strategic alternatives.

We have a history of incurring losses and negative cash flows from operations and have an accumulated deficit of $335.0 million through September 30, 2018. In conjunction with our review of strategic alternatives and our decision to cease the further development of ELAD, we significantly reduced our projected monthly cash usage. Based on

these actions, we believe that our existing cash and cash equivalents of $17.8 million will be sufficient to meet our known liabilities and commitments as of September 30, 2018; however, we expect our resource requirements to change materially to the extent we identify and enter into any strategic transactions. We have

Table of Contents

based this estimate on assumptions that may prove to be wrong, and we could utilize our available capital resources sooner than we currently expect. The timing and amount of our actual expenditures will be based on many factors, including, but not limited to, future research and development efforts if any, the strategic options that we pursue, and any unforeseen cash needs which may deplete current cash and cash equivalents sooner than planned.

On January 6, 2019, we entered into an Exchange Agreement with Immunic AG, a stock corporation formed under the laws of Germany, or Immunic, pursuant to which Immunic would become a wholly-subsidiary of Vital Therapies, subject to a number of conditions including the approval of Vital Therapies stockholders. In addition to this transaction, we are exploring selling assets, including those relating to ELAD, and options to reduce the amount of space we lease in order to increase its cash balance and reduce expenses. If the proposed transaction with Immunic is not completed and we are unable to seek an appropriate alternate use for our remaining assets, our board of directors may decide to pursue a dissolution and liquidation of the company. In such event, the amount of cash available for distribution to stockholders will depend heavily on the timing of such liquidation as well as the amount of cash that will need to be reserved for commitments and contingent liabilities.

Critical Accounting Policies

The preparation of condensed consolidated financial statements in conformity with accounting principles generally accepted in the U.S. requires us to make estimates and assumptions that affect amounts reported in the accompanying condensed consolidated financial statements and related notes. In preparing our condensed consolidated financial statements, we make assumptions and estimates about future events and apply judgments that affect the reported amounts of assets, liabilities, revenue, expenses and the related disclosures. We base our assumptions, estimates and judgments on historical experience, current trends and other factors that management considers relevant. Because future events and their effects cannot be determined with certainty, actual results could differ materially from our assumptions and estimates. We have reviewed these critical accounting policies and related disclosures with the Audit Committee of our board of directors.

Our significant accounting policies are described in more detail in Note 2, *Summary of Significant Accounting Policies*, in the notes to the consolidated financial statements as of December 31, 2017 and 2016 and for each of the three years in the period ended December 31, 2017 and Note 2, *Summary of Significant Accounting Policies*, in the notes to the unaudited interim condensed consolidated financial statements as of September 30, 2018 and for the three and nine months ended September 30, 2018 and 2017, both appearing elsewhere in this proxy statement/prospectus. However, we believe that the following accounting policies are the most critical for fully understanding and evaluating our financial condition and results of operations.

Clinical Trial Accruals

As part of the process of preparing our financial statements, we are required to estimate our accrued expenses. Our clinical trial accrual process seeks to account for expenses resulting from our obligations under agreements with clinical sites, clinical research organizations, or CROs, vendors, and consultants in connection with conducting our clinical trials. We account for these expenses according to the progress of each trial as measured by subject enrollment, the timing of various aspects of the trial and if available, information from our service providers. During the course of a clinical trial, we adjust our rate of clinical expense recognition if actual results differ from our estimates. Although we do not expect our estimates to be materially different from amounts actually incurred, our understanding of the status and timing of services performed relative to the actual status and timing of services performed may vary, and could result in us reporting amounts that may later be determined to be higher or lower than our estimates for a particular period and adjustments to our research and development expenses may be necessary in future periods.

218

Table of Contents

Stock-Based Compensation

We measure and recognize compensation expense for all stock-based compensation for employees and directors based on the estimated fair value at the date of grant, and to consultants based on the ongoing estimated fair value. Currently, our stock-based awards consist only of stock options and restricted stock; however, future grants under our equity compensation plan may also consist of shares of restricted stock units, stock appreciation rights, performance awards and performance units. We estimate the fair value of stock options using the Black-Scholes-Merton, or BSM, option pricing model, which requires the use of estimates.

We recognize stock-based compensation cost for employees and directors for ratably vesting stock options on a straight-line basis over the requisite service period of the award. For performance-based stock options to employees and directors, we record stock-based compensation expense only when the performance-based milestone is deemed probable of achievement. We utilize both quantitative and qualitative criteria to judge whether milestones are probable of achievement.

The fair value of options granted to consultants is estimated using the BSM option pricing model and is re-measured at each reporting date with changes in fair value prior to vesting recognized as expense in the consolidated statements of operations across the applicable vesting period. For performance-based stock options held by consultants, we record stock-based compensation expense only when the performance-based milestones are achieved unless there is a performance commitment.

Effective in the first quarter of 2017, we began recognizing forfeitures as they occur. In 2016 and earlier periods, stock-based compensation expense was recognized only for those awards that were ultimately expected to vest. Through 2016, we estimated forfeitures based on an analysis of our historical employee turnover. We revised the forfeiture estimate in subsequent periods if actual forfeitures differed from those estimates. Changes in estimated forfeitures, which were not material, impacted compensation cost in the period in which the change in estimate occurred.

The BSM option pricing model requires the input of highly-subjective assumptions, including the risk-free interest rate, the expected dividend yield of our common stock, the expected volatility of the price of our common stock, and the expected term of the option. These estimates involve inherent uncertainties and the application of management s judgment. If factors change and different assumptions are used, our stock-based compensation expense could be materially different in the future.

Income Taxes

We account for income taxes under the asset and liability method, which requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of events that have been included in the condensed consolidated financial statements. Under this method, deferred tax assets and liabilities are determined on the basis of the differences between the financial statements and tax basis of assets and liabilities using enacted tax rates in effect for the year in which the differences are expected to reverse. The effect of a change in tax rates on deferred tax assets and liabilities is recognized in income in the period that includes the enactment date.

We recognize net deferred tax assets to the extent we believe these assets are more likely than not to be realized. In making such a determination, management considers all available positive and negative evidence, including future reversals of existing taxable temporary differences, projected future taxable income, tax-planning strategies, and results of recent operations. If management determines that we would be able to realize our deferred tax assets in the future in excess of their net recorded amount, management would make an adjustment to the deferred tax asset

valuation allowance, which would reduce the provision for income taxes. As of September 30, 2018 and December 31, 2017, 2016 and 2015, we maintained a full valuation allowance against our entire balance of deferred tax assets.

We record uncertain tax positions on the basis of a two-step process whereby (1) management determines whether it is more likely than not that the tax positions will be sustained on the basis of the technical merits of the

Table of Contents

position and (2) for those tax positions that meet the more-likely-than-not recognition threshold, management recognizes the largest amount of tax benefit that is more than 50 percent likely to be realized upon ultimate settlement with the related tax authority. We recognize interest and penalties related to unrecognized tax benefits, if any, within income tax expense, and any accrued interest and penalties are included within the related tax liability line.

On December 22, 2017, H.R. 1/Public Law No. 115-97 known as the Tax Cuts and Jobs Act, or the Tax Act, was signed into law. The effects of this new federal legislation are recognized upon enactment, which is the date a bill is signed into law. The Tax Act includes numerous changes in existing tax law; however, the most significant provisions affecting the company are a permanent reduction in the federal corporate income tax rate from 35% to 21%, annual limitations on the utilization of net operating losses and tax credits, the halving of the orphan drug credit, limitations on the deductibility of compensation paid to covered employees and the capitalization and amortization of research and development costs.

Results of Operations

Research and Development Expenses

Research and development expenses have principally related to the development of the ELAD System and are expensed as incurred. Our research and development expenses consisted primarily of:

- expenses incurred under agreements with clinical sites, clinical research organizations, or CROs, and statistical, regulatory and other consultants that assist us with our clinical trials;
- employee-related expenses, which include salaries, benefits, travel and stock-based compensation;
- the cost of acquiring and manufacturing clinical trial materials;
- facilities, depreciation, and other allocated expenses, which include direct and allocated expenses for rent, information systems, maintenance of facilities and equipment, and depreciation of fixed assets; and
- other costs associated with research, the preparation for a potential biologics license application, or BLA, submission and other regulatory activities.

We do not track our employee and facility-related research and development costs by clinical trial, as we have used our employee and infrastructure resources across multiple clinical trials, and we believe the allocation of such costs would be arbitrary and would not provide a meaningful assessment.

The costs of clinical trials vary significantly over the life of a project as a result of a variety of factors including, but not limited to, the following:

- per subject trial costs;

the number of sites included in the trials;

the countries in which the trials are conducted;

the number of subjects that participate in the trials;

continuing quality assurance activities and standards consistent with the U.S. Food and Drug Administration, or FDA, and other regulatory requirements;

potential additional safety monitoring or other studies requested by regulatory agencies;

the number of events that occur in our event driven VTL-308 clinical trial; and

the frequency and duration of subject follow-up visits.

Table of Contents

A change in any of these variables can result in a significant change in the costs and timing associated with clinical development. For example, if we were to conduct an additional clinical trial, we would be required to expend significant additional financial resources and time on the completion of the clinical development of the ELAD System. However, based on our current plan, and in light of our VTL-308 clinical trial results, we expect significantly reduced research and development costs over at least the next several quarters.

General and Administrative Expenses

General and administrative expenses consist primarily of salaries and related costs for personnel in executive, finance, information technology, marketing and legal functions. Other general and administrative expenses include but are not limited to related facility costs, stock-based compensation, professional fees for legal, consulting, accounting and tax services and insurance costs. Based on our current plans and the recent reduction in our workforce, we expect significantly reduced general and administrative costs at least over the next several quarters.

Severance Costs

As a result of the failure of our clinical trial, we completed a staff reduction plan in order to reduce operating expenses and to conserve cash. The plan reduced our workforce by approximately 85%. The staff reduction was completed in September 2018.

Impairment Loss

We evaluate long-lived assets, such as property and equipment, for impairment whenever events or changes in circumstances indicate that the carrying amount of the assets may not be recoverable. If a long-lived asset is considered to be impaired, the impairment to be recognized is the amount by which the carrying amount of the asset exceeds the fair value of the asset or asset group. The resulting impairment charge is included as a loss from operations in the condensed consolidated statements of operations. We do not expect any significant future impairment losses.

Other Income

Interest Income

Our cash and cash equivalents are and have been invested primarily in money market funds, which in our opinion, provide liquidity and protection from loss of principal. We expect to continue to make similar investments while the funds await use in operations.

Comparison of the Three Months Ended September 30, 2018 and 2017

The following table summarizes our operating expenses for the three months ended September 30, 2018 and 2017:

(dollars in thousands)	Three Months Ended September 30, (unaudited)		Change	
	2018	**2017**	**$**	**%**

Operating expenses:				
Research and development	$ 5,989	$ 9,689	$ (3,700)	(38)%
General and administrative	2,461	2,950	(489)	(17)%
Severance Costs	2,395		2,395	100 %
Impairment loss	1,219		1,219	100 %
Total operating expenses	$ 12,064	$ 12,639	$ (575)	(5)%

Table of Contents

Research and development expense decreased by $3.7 million during the three months ended September 30, 2018 as compared to the three months ended September 30, 2017. The decrease includes a reduction in clinical trial costs of $1.9 million due to the completion of enrollment in VTL-308 in the first quarter of 2018. There were 25 subjects enrolled in the VTL-308 in the third quarter of 2017, while no subjects were enrolled in the second quarter of 2018 due to the completion of enrollment. Research and development expense also reflects a $1.2 million reduction in estimated incentive compensation costs and a $930,000 net reversal of stock-based compensation costs in the 2018 quarter, both reflecting that our VTL-308 clinical trial did not successfully reach its primary or secondary endpoints.

Total general and administrative expenses during the three months ended September 30, 2018 decreased by $489,000 as compared to the three months ended September 30, 2017. The decrease reflects a $624,000 reduction in estimated incentive compensation and a $557,000 net reversal of stock-based compensation costs in the 2018 quarter, both reflecting that our VTL-308 clinical trial did not successfully reach either its primary or secondary endpoints. These decreases were partially offset by an increase of $275,000 in legal costs, primarily associated with financing activities no longer being pursued as a result of the outcome of our clinical trial.

In September 2018, we ceased substantially all of our development efforts related to the ELAD System. This resulted in a substantial change in the expected use of our long-lived assets and a significant decrease in the benefits expected to be realized from these assets. Accordingly, we recognized an impairment charge of $1.2 million on our property and equipment reflecting the difference in the carrying value of such property and equipment and its estimated fair value, and severance costs of $2.4 million in the condensed consolidated statement of operations for the three months ended September 30, 2018.

Comparison of the Nine Months Ended September 30, 2018 and 2017

The following table summarizes our operating expenses for the nine months ended September 30, 2018 and 2017:

	Nine Months Ended September 30,		Change	
	2018	2017	$	%
(dollars in thousands)	(unaudited)			
Operating expenses:				
Research and development	$ 24,805	$ 29,151	$ (4,346)	(15)%
General and administrative	11,054	8,724	2,330	27 %
Severance Costs	2,395		2,395	100 %
Impairment loss	1,219		1,219	100 %
Total operating expenses	$ 39,473	$ 37,875	$ 1,598	4 %

Research and development expense decreased by $4.3 million during the nine months ended September 30, 2018 as compared to the nine months ended September 30, 2017. The decrease reflects a reduction in clinical trial costs of $4.1 million due to the completion of enrollment in VTL-308 in the first quarter of 2018. There were 74 subjects enrolled in the VTL-308 clinical trial in the nine months ended September 30, 2017, while there were 19 subjects enrolled in the nine months ended September 30, 2018 due to the completion of enrollment. Research and development expense also reflects a $982,000 reduction in estimated incentive compensation costs and a $920,000 net reversal of stock-based compensation in the 2018 period, both reflecting that our VTL-308 clinical trial did not successfully reach its primary or secondary endpoints. Costs for conferences and sponsorships were also lower by

$527,000 in 2018 period as activity declined with the completion of enrollment. In the nine-month period ended September 2018, we also had higher consulting and compensation costs of $1.4 million and $767,000, respectively, primarily to support the preparation of an anticipated biologics license application, or BLA, submission. Following the completion of enrollment in the first quarter of 2018, manufacturing, quality and regulatory functions began focusing their efforts and resources on preparing for a BLA submission as

Table of Contents

opposed to clinical development. Upon the release of results from the VTL-308 clinical trial in September 2018, we ceased substantially all development efforts related to the ELAD System.

Total general and administrative expenses during the nine months ended September 30, 2018 increased by $2.3 million as compared to the nine months ended September 30, 2017. The increase reflects an increase in compensation costs of $1.6 million for the payment of a signing bonus and an increase in stock-based compensation related to the hiring of our new chief executive officer. In addition, we incurred higher costs of $1.0 million for marketing consultants and services and for investor relations, which included $115,000 in stock issued for services, and $767,000 for patent and other legal costs, including costs associated with financing activities, in the nine months ended September 30, 2018 as compared to the corresponding period in 2017. These increases were partially offset by a $862,000 reduction in stock-based compensation for the reversal of previously recognized expense related to performance-based stock options and a $557,000 reduction in estimated incentive compensation costs, both reflecting that our VTL-308 clinical trial did not successfully reach its primary or secondary endpoints.

In September 2018, we ceased substantially all of our development efforts related to the ELAD System. This resulted in a substantial change in the expected use of our long-lived assets and a significant decrease in the benefits expected to be realized from these assets. Accordingly, we recognized an impairment charge of $1.2 million on our property and equipment reflecting the difference in the carrying value of such property and equipment and its estimated fair value, and severance costs of $2.4 million in the condensed consolidated statement of operations for the nine months ended September 30, 2018.

Comparison of Fiscal Years Ended December 31, 2017 and 2016

The following table summarizes our operating expenses for the years ended December 31, 2017 and 2016 (dollars in thousands):

	Year Ended December 31,		Change	
	2017	2016	$	%
Operating expenses:				
Research and development	$ 39,341	$ 30,046	$ 9,295	31%
General and administrative	13,314	11,220	2,094	19%
Total operating expenses	$ 52,655	$ 41,266	$ 11,389	28%

The $9.3 million increase in research and development expense during the year ended December 31, 2017 as compared to the year ended December 31, 2016 principally reflects an $8.0 million increase in costs related to the VTL-308 and prior clinical trials, primarily in higher costs for subjects, sites, manufacturing, enrollment support activities and consulting. As enrollment started in the second quarter of 2016, 35 subjects were enrolled in the VTI-308 clinical trial in the year ended December 31, 2016, while 97 subjects were enrolled during the year ended December 31, 2017. Costs also increased by $1.2 million for activities to support a potential biologics license application, or BLA, submission in the future.

The $2.1 million increase in general and administrative expense during the year ended December 31, 2017 as compared to the year ended December 31, 2016 was largely the result of a $1.9 million increase in compensation-related costs. In December 2017, our chief executive officer transitioned from being an employee to a

consultant. As a result of the related transition and consulting agreements, we recorded $525,000 in severance costs and $674,000 in stock-based compensation related to stock option modifications. In total, stock-based compensation increased by $1.2 million in 2017 as compared to 2016 principally due to the stock option modifications and an increase in the number of options outstanding.

We expect to continue to incur significant research and development costs to complete enrollment in the VTL-308 clinical trial and in support of BLA activities. We also expect general and administrative costs to

Table of Contents

remain relatively constant in 2018 compared to 2017 except for increases in stock-based compensation and costs associated with hiring a new chief executive officer in January 2018. In addition, with successful topline results from our VTL-308 clinical trial, we would expect to increase our research and development costs to support a BLA submission and our general and administrative costs as we begin to prepare for the potential commercialization of the ELAD System.

Comparison of Fiscal Years Ended December 31, 2016 and 2015

The following table summarizes our operating expenses for the years ended December 31, 2016 and 2015 (dollars in thousands):

	Year Ended December 31,		Change	
	2016	2015	$	%
Operating expenses:				
Research and development	$ 30,046	$ 39,773	$ (9,727)	(24)%
General and administrative	11,220	12,347	(1,127)	(9)%
Total operating expenses	$ 41,266	$ 52,120	$ (10,854)	(21)%

Research and development expense decreased by $9.7 million during the year ended December 31, 2016 as compared to the year ended December 31, 2015. The reduction in research and development expenses resulted from an $8.3 million decrease in clinical trial and related consulting, manufacturing and outside service costs. We opened 38 sites during the year ended December 31, 2016 and enrolled 35 subjects in the VTL-308 clinical trial. Higher costs in the year ended December 31, 2015 reflected costs associated with locking the database for and analysis of the VTI-208 clinical trial, and costs associated with the opening of 42 sites and the enrollment of 38 subjects in the VTI-208, VTI-210 and VTI-212 clinical trials. In addition, research and development-related salaries and related compensation costs decreased by $1.3 million in the year ended December 31, 2016, primarily as a result of the reduction in staff and the recording of related severance costs in the third quarter of 2015.

The $1.1 million decrease in general and administrative expense during the year ended December 31, 2016 as compared to the year ended December 31, 2015 was primarily the result of $503,000, $348,000 and $177,000 of lower salaries, for consulting and outside services and for travel costs, respectively, in part reflecting reductions in costs in conjunction with the reduction in staff completed in the fourth quarter of 2015. The decrease was also driven by a $250,000 reduction in audit and accounting fees and costs associated with being a public company and a $170,000 reduction in insurance costs. These decreases were partially offset by increased stock-based compensation of $640,000, primarily due to performance-based stock options that were granted in the fourth quarter of 2015. In addition, legal expenses increased by $223,000 in 2016, principally reflecting costs associated with securities litigation that was dismissed in 2016.

Liquidity and Capital Resources

Overview

We have a history of incurring losses and negative cash flows from operations and have an accumulated deficit of $335.0 million through September 30, 2018. In conjunction with our review of strategic alternatives and our decision

to cease the further development of the ELAD, we significantly reduced our projected monthly cash usage. Based on these actions, we believe that our existing cash and cash equivalents of $17.8 million would be sufficient to meet our known liabilities and commitments as of September 30, 2018; however, we expect our resource requirements to change materially to the extent we identify and enter into any strategic transactions. We have based this estimate on assumptions that may prove to be wrong, and we could utilize our available capital resources sooner than we currently expect. The timing and amount of our actual expenditures will be based on

Table of Contents

many factors, including, but not limited to, future research and development efforts if any, the strategic options that we pursue, and any unforeseen cash needs which may deplete current cash and cash equivalents sooner than planned.

We currently have an effective shelf registration statement on Form S-3 on file with the Securities and Exchange Commission, or SEC, which expires June 2021. The shelf registration statement currently permits the offering, issuance and sale by us of up to an aggregate offering price of $200.0 million of common stock, preferred stock, warrants, debt securities or units in one or more offerings and in any combination, of which $60.0 million may be offered, issued and sold under an at-the-market sales agreement with Cantor Fitzgerald & Co. However, we expect the amounts available under the shelf registration statement to be significantly limited in the future if our public float remains below $75.0 million as measured on December 31, 2018, although we would still expect to be able to raise funds through a registration statement on Form S-1 or through private placements. Funding is expected to be more difficult to secure due to our past clinical trials not meeting their primary or secondary endpoints.

There is no assurance that we will be able to obtain additional funding if needed on acceptable terms or at all. The factors described above and our history of ongoing losses, raise substantial doubt over whether we will continue as a going concern for one year from the date of the issuance of our condensed consolidated financial statements for the nine months ended September 30, 2018.

Cash in excess of immediate requirements is invested in accordance with our investment policy, primarily with an intent to maximize liquidity and preserve capital. As of September 30, 2018, such funds were held in cash and money market funds.

Cash Flows

Comparison of the Nine Months Ended September 30, 2018 and 2017

The following table shows a summary of our cash flows for the nine months ended September 30, 2018 and 2017:

	Nine Months Ended September 30,	
	2018	**2017**
(in thousands)	(unaudited)	
Cash (used in) provided by:		
Operating activities	$ (38,512)	$ (30,477)
Investing activities	(595)	(567)
Financing activities	4	37,444

Net cash used in operating activities

During the nine months ended September 30, 2018, operating activities used $38.5 million of cash. The use of cash primarily related to our net loss of $39.0 million adjusted for non-cash charges of $3.1 million related to stock-based compensation, $1.2 million in impairment losses, and $628,000 related to depreciation and amortization, and a $4.8 million net decrease in our operating assets and liabilities. Changes in our operating assets and liabilities during the nine months ended September 30, 2018 consisted primarily of a decrease of $4.5 million in accrued expenses and accounts payable. The decrease in accrued expenses and accounts payable was primarily attributable to the payment of 2017 bonuses in the first quarter of 2018, and a decrease in the amounts due for and related to our VTL-308 clinical trial.

During the nine months ended September 30, 2017, operating activities used $30.5 million of cash. The use of cash primarily related to our net loss of $37.5 million adjusted for non-cash charges of $3.6 million related to

stock-based compensation and of $780,000 related to depreciation and amortization, and a $2.6 million change in our operating assets and liabilities. Changes in our operating assets and liabilities during the nine months ended September 30, 2017 consisted primarily of an increase of $2.7 million in accrued expenses and accounts payable, partially offset by an increase of $125,000 in other current assets and prepaid expenses. The increase in accrued expenses and accounts payable was primarily attributable to the increase in the amounts due for our VTL-308 clinical trial.

Investing Activities

During the nine months ended September 30, 2018, net investing activities used $595,000 of cash due primarily to capital expenditures for facilities improvements and purchases of equipment for manufacturing and research and development. During the nine months ended September 30, 2017, net investing activities used $567,000 of cash, primarily due to capital expenditures of $574,000 for facilities improvements and purchases of equipment for manufacturing and research and development.

Financing Activities

During the nine months ended September 30, 2018, financing activities provided $4,000 of cash related to proceeds from the exercise of stock options. During the nine months ended September 30, 2017, financing activities provided $37.4 million of cash primarily related to net cash proceeds after underwriters commissions and cash payments for offering costs from the follow-on offering completed in March 2017.

Our forecast of the period of time through which our financial resources will be adequate to support our operations is a forward-looking statement that involves risks and uncertainties, and actual results could vary materially. Our future capital requirements are difficult to forecast and will depend on many factors, including, but not limited to:

- the timing and structure of any strategic options and transactions, if any;
- the cost, timing and outcome of any future litigation costs;
- personnel-related expenses, including salaries, benefits, stock-based compensation expense and other compensation expenses related to retention and termination of personnel;
- the scope, progress, results and costs of research and development and any future clinical trials;
- the cost and timing of future regulatory submissions;
- the cost and timing of developing and validating manufacturing processes for any potential product candidates;

the cost and timing of any commercialization activities, including reimbursement, marketing, sales and distribution costs;

our ability to establish new collaborations, licensing or other arrangements and the financial terms of such agreements;

the number and characteristics of any future product candidates we pursue (if any);

the costs involved with being a public company;

the costs involved in preparing, filing, prosecuting, maintaining, defending and enforcing patents, including litigation costs and the outcome of such litigation; and

the timing, receipt and amount from the sales of, or royalties on any future product candidates, if any.

Until such time, if ever, as we can generate substantial product revenues, we expect to finance our cash needs through a combination of stock offerings, debt financings, collaborations, corporate reverse merger transactions,

Table of Contents

asset sales and licensing arrangements. We do not expect to achieve revenue from product sales prior to the use of the net proceeds from our public and private offerings to date. We do not have any committed external source of funds. Additional funds may not be available on acceptable terms, if at all. To the extent that we raise additional capital through the sale of equity securities, the ownership interest of our stockholders will be diluted and it may be on terms that are not favorable to us or our stockholders. Debt financing, if available, may involve covenants restricting our operations or our ability to incur additional debt or other terms that are not favorable to us or our stockholders. If we raise additional funds through collaborations and licensing arrangements with third parties, we would expect to relinquish substantial rights to our technologies or our future products, or grant licenses on terms that are not favorable to us. If we were to complete a merger, we may relinquish all control over the organization and could experience detrimental tax effects. If we are unable to raise adequate funds, we may have to liquidate some or all of our assets. Any of these factors could harm our operating results.

Comparison of the Fiscal Years Ended December 31, 2017, 2016 and 2015

The following table shows a summary of our cash flows for each of the years ended December 31, 2017, 2016, and 2015 (in thousands):

	Year Ended December 31		
	2017	**2016**	**2015**
Cash (used in) provided by:			
Operating activities	$ (40,397)	$ (35,774)	$ (49,952)
Investing activities	(678)	(21)	(1,281)
Financing activities	37,984	12,374	32,421

Net cash used in operating activities

During the year ended December 31, 2017, operating activities used $40.4 million of cash. The use of cash primarily related to our net loss of $52.1 million adjusted for non-cash charges of $5.5 million related to stock-based compensation and $998,000 related to depreciation and amortization, partially offset by a $4.9 million change in our operating assets and liabilities. Changes in our operating assets and liabilities during the year ended December 31, 2017 consisted primarily of an increase of $4.8 million in accrued expenses and accounts payable and a decrease of $165,000 in other current assets and prepaid expenses. The increase in accrued expenses and accounts payable was primarily attributable to the increase in amounts due for our VTL-308 clinical trial.

During the year ended December 31, 2016, operating activities used $35.8 million of cash. The use of cash primarily related to our net loss of $41.0 million adjusted for non-cash charges of $4.7 million related to stock-based compensation and $1.8 million related to depreciation and amortization, partially offset by a $1.4 million change in our operating assets and liabilities. Changes in our operating assets and liabilities during the year ended December 31, 2016 consisted primarily of a decrease of $1.0 million in accrued expenses and accounts payable and an increase of $232,000 in other current assets and prepaid expenses. The decrease in accrued expenses and accounts payable was primarily attributable to the reduction in amounts due to clinical sites for our VTI-208, VTI-210 and VTI-212 clinical trials, partially offset by increases in amounts due for our VTL-308 clinical trial.

During the year ended December 31, 2015, operating activities used $50.0 million of cash. The use of cash primarily related to our net loss of $52.0 million adjusted for non-cash charges of $4.0 million related to stock-based compensation and $1.3 million related to depreciation and amortization and also related to a $3.3 million net change in our operating assets and liabilities. Changes in our operating assets and liabilities during the year ended

December 31, 2015 consisted primarily of a decrease of $3.6 million in accrued expenses, an increase of $281,000 in accounts payable and a decrease of $143,000 in other assets and prepaid expenses. The decrease in accrued expenses was primarily attributable to a decrease of $3.4 million in the clinical trial accrual due to the completion of the VTI-208 clinical trial.

Table of Contents

Net cash used in investing activities

During the year ended December 31, 2017, net investing activities used $678,000 of cash, primarily due to capital expenditures of $685,000 for facility improvements and purchases of equipment for manufacturing and research and development.

During the year ended December 31, 2016, net investing activities used $21,000 of cash, including capital expenditures of $556,000 principally for purchases of equipment for manufacturing and clinical operations, partially offset by $533,000 from a decrease in restricted cash requirements relating to our clinical trials and lease commitments.

During the year ended December 31, 2015, investing activities used $1.3 million of cash, including $2.3 million for facilities improvements and purchases of equipment for manufacturing, research and development, partially offset by $1.1 million from a decrease in restricted cash requirements relating to our completed and terminated clinical trials.

Net cash provided by financing activities

During the year ended December 31, 2017, financing activities provided $38.0 million of cash related to net cash proceeds after underwriters commissions and cash payments for offering costs from the follow-on offering completed in March 2017 and the ATM offerings completed in 2017.

During the year ended December 31, 2016, financing activities provided $12.4 million of cash, which included net proceeds of $12.4 million after underwriters commissions and offering costs from the ATM offerings and the private placement completed in the year ended December 31, 2016.

During the year ended December 31, 2015, financing activities provided $32.4 million of cash, which included net proceeds of $32.2 million after underwriters discounts and commissions and offering costs, from a follow-on offering completed in October 2015. Additionally, cash provided by financing activities included $515,000 received from the exercise of stock options, partially offset by the payment of $283,000 for deferred financing costs.

Our forecast of the period of time through which our financial resources will be adequate to support our operations is a forward-looking statement that involves risks and uncertainties, and actual results could vary materially. Our future capital requirements are difficult to forecast and will depend on many factors, including, but not limited to:

- the scope, progress, results and costs of research and development and clinical trials related to the ELAD System or any future product candidates;
- the cost and timing of a potential BLA submission;
- the cost and timing of scaling up and validating the manufacturing process for the ELAD System or any other product candidates for commercialization;

the cost and timing of commercialization activities, including reimbursement, marketing, sales and distribution costs, both before and after product approval (if any);

our ability to establish new collaborations, licensing or other arrangements and the financial terms of such agreements;

the number and characteristics of any future product candidates we pursue;

the costs involved with being a public company;

the costs involved in preparing, filing, prosecuting, maintaining, defending and enforcing patents, including litigation costs and the outcome of such litigation; and

Table of Contents

the timing, receipt and amount of sales of, or royalties, if any, on the ELAD System and any future product candidates.

Until such time, if ever, as we can generate substantial product revenues, we expect to finance our cash needs through a combination of stock offerings, debt financings, collaborations and licensing arrangements. We do not expect to achieve revenue from product sales prior to the use of the net proceeds from our public and private offerings to date. We do not have any committed external source of funds. Additional funds may not be available on acceptable terms, if at all. To the extent that we raise additional capital through the sale of equity securities, the ownership interest of our stockholders will be diluted and may be on terms that are not favorable to us or our stockholders. Debt financing, if available, may involve covenants restricting our operations or our ability to incur additional debt or other terms that are not favorable to us or our stockholders. If we raise additional funds through collaborations and licensing arrangements with third parties, which we have no prior experience in, we may have to relinquish some rights to our technologies or our products, or grant licenses on terms that are not favorable to us. If we are unable to raise adequate funds, we may have to liquidate some or all of our assets, or we may have to delay, reduce the scope of, or eliminate some or all of our development programs or clinical trials. We may also have to delay development or commercialization of our products or license to third parties the rights to commercialize products or technology that we would otherwise seek to commercialize. Any of these factors could harm our operating results.

Off-Balance Sheet Arrangements

Through September 30, 2018, we have not entered into and did not have any relationships with unconsolidated entities or financial collaborations, such as entities often referred to as structured finance or special purpose entities, established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purpose.

Contractual Obligations

Some of our most significant clinical trial expenditures are to investigative sites and to CROs. These agreements are cancellable by either party at any time upon written notice and do not have any cancellation penalties, but do obligate us to reimburse the providers for any time or costs incurred through the date of termination and to close out clinical sites. These items are not included in the table below. We lease office and manufacturing space in San Diego, California. The following table summarizes our contractual obligations at December 31, 2017 and the effect such obligations are expected to have on our cash flow in future periods:

		Payments Due by Period			
	Total	Less Than 1 Year	1-3 Years	3-5 Years	More Than 5 Years
		(In thousands)			
Operating lease obligations	$ 2,584	$ 1,073	$ 856	$ 655	$
Purchase obligations	431	431			
Total contractual obligations	$ 3,015	$ 1,504	$ 856	$ 655	$

As of December 31, 2017, our purchase obligations include existing purchase commitments of $288,000 with a vendor for raw materials that will be used in manufacturing on an as needed basis. During the years ended December 31, 2017, 2016 and 2015, we purchased $1.1 million, $943,000 and $1.2 million, respectively, of materials from this vendor. Our purchase obligations also include a purchase commitment of $143,000 with a vendor for a component used in our clinical trials that will be manufactured and delivered on an as agreed upon schedule during

2018. During the years ended December 31, 2017, 2016 and 2015, we purchased $228,000, $139,000 and $106,000, respectively, of materials from this vendor. In the course of normal business operations, we also enter into agreements with contract service providers and others. We can elect to discontinue the work under these contracts and purchase orders with notice.

Table of Contents

There have been no material changes during the nine months ended September 30, 2018 outside the ordinary course of business from the specified contractual obligations shown above.

Effects of Inflation

We do not believe that inflation and changing prices had a significant impact on our results of operations for any periods presented herein.

Recent Accounting Pronouncements

In February 2016, the Financial Accounting Standards Board, or FASB, issued Accounting Standards Update, or ASU, No. 2016-02, Leases, or ASU 2016-02. ASU 2016-02 will require that lease arrangements longer than 12 months result in an entity recognizing an asset and liability equal to the present value of the lease payments in the statement of financial position. ASU 2016-02 is effective for annual periods beginning after December 15, 2018, and interim periods therein. This standard requires a modified retrospective transition approach for all leases existing at, or entered into after, the date of initial application, with an option to use certain transition relief. We expect to adopt ASU 2016-02 in 2019. The adoption of this guidance is expected to result in a significant increase in the total assets and liabilities reported on our consolidated balance sheets.

In November 2016, the FASB issued ASU No. 2016-18, *Statement of Cash Flows: Restricted Cash*, or ASU 2016-18. ASU 2016-18 provides guidance on the classification of restricted cash in the statements of cash flows. This ASU requires that our statements of cash flows explain the change during the period in the total of cash, cash equivalents and amounts generally described as restricted cash or restricted cash equivalents. We adopted this standard in the first quarter of 2018, and the adoption did not have any impact on our condensed consolidated financial statements.

In May 2017, the FASB issued ASU No. 2017-09, *Compensation-Stock Compensation (Topic 718): Scope of Modification Accounting,* or ASU 2017-09. The amendments in this update provide guidance on determining which changes to the terms and conditions of share-based payment awards require an entity to apply modification accounting under Topic 718. We adopted this standard in the first quarter of 2018, and the adoption did not have a significant impact on our condensed consolidated financial statements.

In June 2018, the FASB issued ASU No. 2018-07, *Improvements to Non-employee Share-Based Payment Accounting,* or ASU 2018-07. ASU 2018-07, which simplifies the accounting for non-employee share-based payment transactions, specifies that Topic 718 applies to all share-based payment transactions in which a grantor acquires goods or services to be used or consumed in a grantor s own operations by issuing share-based payment awards. ASU 2018-07 is effective for public business entities for fiscal years beginning after December 15, 2018, and early adoption is permitted. We currently expect to adopt ASU 2018-07 in the first quarter of 2019. We do not expect the adoption of this standard to have a material impact on our condensed consolidated financial statements.

In August 2018, the FASB issued ASU No. 2018-13, *Fair Value Measurement Disclosure Framework,* or ASU 2018-13. ASU 2018-13, modifies the disclosure requirements for fair value measurements. The amendments relate to disclosures regarding unrealized gains and losses, the range and weighted average of significant unobservable inputs used to develop Level 3 fair value measurements, and the narrative description of measurement uncertainty and are to be applied prospectively for only the most recent interim or annual period presented in the initial fiscal year of adoption. All other amendments should be applied retrospectively to all periods presented upon their effective date. The amendments are effective for fiscal years beginning after December 15, 2019, and interim periods within those fiscal years, and early adoption is permitted.

230

Table of Contents

JOBS Act

In April 2012, the Jumpstart Our Business Startups Act, or the JOBS Act, was enacted. Section 107 of the JOBS Act provides that an emerging growth company can take advantage of the extended transition period provided in Section 7(a)(2)(B) of the Securities Act for complying with new or revised accounting standards. Thus, an emerging growth company can delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. We have irrevocably elected not to avail ourselves of this extended transition period and, as a result, we adopt new or revised accounting standards on the relevant dates on which adoption of such standards is required for other companies.

Table of Contents

MANAGEMENT S DISCUSSION AND ANALYSIS OF

FINANCIAL CONDITION AND RESULTS OF OPERATIONS OF IMMUNIC

The following discussion and analysis of financial condition and results of operations should be read together with the consolidated financial statements of Immunic and accompanying notes appearing elsewhere in this proxy statement/prospectus. This discussion of Immunic s financial condition and results of operations contains certain statements that are not strictly historical and are forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995 and involve a high degree of risk and uncertainty. Actual results may differ materially from those projected in the forward-looking statements due to risks and uncertainties that exist in Immunic s operations, development efforts and business environment, including those set forth in the section entitled Risk Factors Risks Related to Immunic in this proxy statement/prospectus, the other risks and uncertainties described in the section entitled Risk Factors in this proxy statement/prospectus and the other risks and uncertainties described elsewhere in this proxy statement/prospectus. All forward-looking statements included in this proxy statement/prospectus are based on information available to Immunic as of the date hereof, and Immunic assumes no obligation to update any such forward-looking statement.

Overview

Immunic is a specialist in selective oral drugs in immunology and is focused on developing novel oral therapies with best-in-class potential for chronic inflammatory and autoimmune diseases. Immunic s three development programs target inflammatory bowel diseases, multiple sclerosis, and psoriasis and include orally available, small molecule inhibitors of DHODH (IMU-838 program), an inverse agonist of RORgt (IMU-935 program), and IMU-856 (targeting improvement in intestinal barrier function). Immunic s lead development program, IMU-838 is currently in phase 2 clinical development for ulcerative colitis, with additional phase 2 trials in Crohn s disease, and multiple sclerosis, and an investigator- initiated proof of concept study in primary sclerosing cholangitis planned for 2019.

Recent Events

Vital Therapies, Immunic, and the shareholders of Immunic entered into an Exchange Agreement dated as of January 6, 2019, or the Exchange Agreement, pursuant to which the Immunic shareholders will contribute, transfer, assign and deliver all of the Immunic shares owned by them, and all of their rights with respect to such Immunic shares, to Vital Therapies in exchange for shares of Vital Therapies common stock, with the result of Immunic becoming a wholly-owned subsidiary of Vital Therapies, which is referred to as the Transaction.

On January 6, 2019, immediately prior to the execution of the Exchange Agreement, Immunic entered into an investment and subscription agreement, or the Subscription Agreement, with all current shareholders of Immunic, as well as certain of Immunic s executive officers and directors, namely Dr. Daniel Vitt, Dr. Andreas Muehler, Dr. Hella Kohlhof, and Dr. Manfred Gröppel, pursuant to which the Immunic shareholders made commitments, subject to the closing of the Transaction, to invest an aggregate amount of approximately $30 million in Immunic by means of an increase of its registered share capital and payments into its capital reserves. In addition, the Immunic shareholders agreed to convert all existing preferred shares in Immunic into common shares prior to the closing of the Transaction.

At the closing of the Transaction, each Immunic common share will be exchanged for the right to receive a number of shares of Vital Therapies common stock equal to the Exchange Ratio. Vital Therapies stockholders will continue to own and hold their existing shares of Vital Therapies common stock. The Exchange Ratio is determined pursuant to a formula in the Exchange Agreement.

Immediately after the Transaction, (a) current Vital Therapies stockholders are expected to own approximately 11% of the combined company and (b) current Immunic shareholders are expected to own approximately 89% of the combined company, on a fully-diluted basis, in each case subject to adjustment as provided in the Exchange

Table of Contents

Agreement and calculated on a pro forma basis after giving effect to (i) the issuance of common shares by Immunic immediately prior to the closing of the Transaction pursuant to the terms of the Subscription Agreement, and (ii) the Transaction.

Revenue

Immunic has no products approved for commercial sale and has not generated any revenue from product sales.

In the future, Immunic may generate revenue by entering into licensing arrangements or strategic alliances. To the extent it enters into any license arrangements or strategic alliances, Immunic expects that any revenue it generates will fluctuate from quarter-to-quarter as a result of the transfer of control regarding fulfilment of performance obligations such as pre-clinical, clinical, regulatory and commercialization achievements. If Immunic fails to develop product candidates in a timely manner, obtain regulatory approval for them, or commercialize them, Immunic s ability to generate future revenues, and its results of operations and financial position would be adversely affected.

Research and Development Expenses

Research and development expenses consist of costs associated with Immunic s research activities, including its product discovery efforts and the development of its product candidates. Immunic s research and development expenses include:

- external research and development expenses incurred under arrangements with third parties, such as contract research organizations (CROs), contract manufacturing organizations, consultants, and Immunic s scientific advisors;
- internal personnel expenses;
- amortization of the purchased intellectual property rights for IMU-838 and IMU-935.

Immunic expenses research and development costs as incurred. Nonrefundable advance payments for goods and services that will be used in future research and development activities are capitalized as an asset and expensed when the service has been performed or when the goods have been received.

Since Immunic s inception in March 2016, Immunic has spent a total of approximately 12.3 million in research and development expenses through September 30, 2018. This mainly includes external development expenses and internal personnel expenses for the two development programs IMU-838 and IMU-935. Immunic has spent the majority of its research and development resources on IMU-838, since it is further along in its development. In 2016 and 2017 costs were incurred by Immunic for the completion of its clinical phase 1 program for IMU-838 exploring its pharmacokinetic properties, as well as its safety and tolerability. The program comprised a single ascending dose (SAD) and multiple ascending dose (MAD) study in healthy volunteers. In the beginning of 2018, Immunic initiated the clinical phase 2 trial (CALDOSE-1) in patients with ulcerative colitis (UC). In addition, Immunic is preparing for a second phase 2 trial (CALDOSE-2) in patients with Crohn s disease. Furthermore, the preclinical development of program IMU-935 was driven forward.

Immunic expects its research and development expenses to increase for the foreseeable future as Immunic continues to conduct its ongoing regulatory and commercialization activities, initiates new preclinical and clinical trials and builds its pipeline. The process of commercialization, conducting clinical trials and pre-clinical studies necessary to obtain regulatory approval is costly and time consuming. Immunic may never succeed in achieving marketing approval for any of Immunic s product candidates.

Successful development of product candidates is highly uncertain and may not result in approved products. Completion dates and completion costs can vary significantly for each product candidate and are difficult to

Table of Contents

predict. Immunic anticipates it will make determinations as to which programs to pursue and how much funding to direct to each program on an ongoing basis in response to the development and regulatory success of each product candidate, and ongoing assessments as to each product candidate s commercial potential.

Administrative Expenses

Administrative expenses consist primarily of personnel expenses, professional fees for legal, auditing, tax and business consulting services and travel costs. Immunic expects that general and administrative expenses will increase in the future as Immunic expands its operating activities.

If Immunic completes the Transaction, Immunic would become a SEC registrant and would expect to incur significant additional costs associated with being a SEC registrant. These increases will likely include legal fees, costs associated with Sarbanes-Oxley compliance, accounting fees, and directors and officers liability insurance premiums.

Critical Accounting Policies and Estimates

This management discussion and analysis of financial condition and results of operations is based on Immunic s consolidated financial statements, which have been prepared in accordance with IFRS as issued by the IASB. The preparation of these financial statements requires Immunic to make estimates and judgments that affect the reported amounts of assets, liabilities and expenses. On an ongoing basis, Immunic evaluates these estimates and judgments. Immunic bases its estimates on historical experience and on various assumptions that Immunic believes to be reasonable under the circumstances. These estimates and assumptions form the basis for making judgments about the carrying values of assets and liabilities and the recording of expenses that are not readily apparent from other sources. Actual results may differ materially from these estimates. Immunic believes that the accounting policies discussed below are critical to understanding Immunic s historical and future performance, as these policies relate to the more significant areas involving its judgments and estimates.

Intangible Assets

Intangible assets comprise finite-lived intangible assets only, including mainly acquired rights to intellectual property. Intangible assets are recorded at cost, net of accumulated amortization and, if applicable, impairment charges. Amortization of intangible assets is recognized over their estimated useful lives on a straight-line basis. Immunic reviews its intangible assets for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable.

Stock-Based Compensation

Under two virtual stock options programs, Immunic grants virtual stock options to members of the supervisory board and to key employees and advisors. Immunic accounts for both programs as cash-settled stock-based payment transactions.

The fair value of the Company s stock was determined based on valuation estimates by third parties.

As the fair value of the zero-cost option granted in course of the two virtual stock options programs equals the fair value of the underlying stock (assuming no dividends), further inputs usually used to determine the fair values of stock options were not collected.

234

Table of Contents

Results of Operations

Comparison of the Nine Months Ended September 30, 2018 and 2017

The following table summarizes Immunic s results of operations for the nine months ended September 30, 2018 and 2017 (euros in thousands):

	Nine Months Ended September 30,		Change	
	2018	2017		%
Research and development expenses	4,611	4,814	(203)	(4)%
Administration expenses	965	637	328	51%

Research and Development Expenses

Research and development expenses were 4.6 million during the first nine months of 2018, as compared to 4.8 million during the nine months ended September 30, 2017. External research and development expenses for the first nine months of 2018 were comprised of 3.1 million directly related to our IMU-838 program and 0.9 million directly related to the IMU-935 program. Research and development costs for the first nine months of 2017 were comprised of 3.7 million directly related to the IMU-838 and 0.6 million directly related to IMU-935. Amortization of intangible assets was 105,000 for IMU-838 and 45,000 for IMU-935 for the first nine months of 2018 and 105,000 for IMU-838 and 45,000 for IMU-935 for the first nine months of 2017. Personnel expenses totaled to 365,000 for the first nine months of 2018 and 303,000 for the first nine months of 2017.

Administration Expenses

Administration expenses were 1 million for the nine months ended September 30, 2018 as compared to 0.6 million for the nine months ended September 30, 2017. This increase of 0.3 million was primarily due to an increase in legal and consultancy costs and travel costs.

Comparison of the Years Ended December 31, 2017 and 2016

The following table summarizes Immunic s results of operations for the years ended December 31, 2017 and 2016 (euros in thousands):

	Year Ended December 31,		Change	
	2017	2016		%
Research and development expenses	6,980	722	6,258	867%
Administration expenses	960	456	504	111%

Research and Development Expenses

Research and development expenses were 7 million for the year ended December 31, 2017 as compared to 0.7 million for the year ended December 31, 2016. The 6.3 million increase was due to an increase of costs for phase 1 clinical

trial for the IMU-838 program, preclinical development costs for the IMU-935 program and higher personnel expenses. Immunic was founded in 2016 and most research and development activities began in September 2016 after the intellectual property rights for IMU-838 and IMU-935 were acquired.

External research and development expenses for 2017 were comprised of 5.6 million directly related to the IMU-838 program, mostly for phase 1 clinical development and 0.8 million directly related to the IMU-935 program, mostly for preclinical development. Personnel expenses totaled 422,000 in 2017.

Table of Contents

In 2016, external research and development expenses were 622,000 for both Immunic s IMU-838 and IMU-935 programs.

Immunic expects its research and development expenses to increase for the foreseeable future as it initiates additional clinical trials and preclinical studies and advances its pipeline products.

Administration Expenses

General and administrative expenses were 1 million for the year ended December 31, 2017 compared to 0.5 million for the year ended December 31, 2016. The 0.5 million increase was primarily due to an increase in contractor costs.

Liquidity and Capital Resources

Immunic has no products approved for commercial sale and has not generated any revenue from product sales. Immunic has never been profitable and has incurred operating losses in each year since inception. Immunic s net losses were approximately 5.8 million for the nine months ended September 30, 2018, and approximately 8.1 million and 1.2 million for the years ended December 31, 2017 and 2016, respectively. As of September 30, 2018, Immunic had an accumulated deficit of approximately 15.1 million. Substantially all of Immunic s operating losses resulted from expenses incurred in connection with its research and development programs and from general and administrative costs associated with its operations.

Immunic expects to incur significant expenses and increasing operating losses for the foreseeable future as Immunic initiates and continues the preclinical and clinical development of its product candidates and adds personnel necessary to operate as a company with an advanced clinical pipeline of product candidates. In addition, assuming completion of the Transaction, operating as a SEC registrant will involve the hiring of additional financial and other personnel, upgrading financial information systems, and incurring costs associated with operating as a public company. Immunic expects that its operating losses will fluctuate significantly from quarter-to-quarter and year-to-year due to timing of clinical development programs.

From inception to September 30, 2018, Immunic has raised net cash proceeds of approximately 26 million in a series A financing round from private placements of preferred stocks. As of September 30, 2018, Immunic had cash and cash equivalents of approximately 8.6 million. In November and December 2018, an additional 5.8 million was raised in the final tranche under the series A financing round.

Immunic s current capital resources are not sufficient to fund its planned operations for the next 12 months from the filing of this registration statement. However, Immunic has entered into an investment and subscription agreement with its current shareholders pursuant to which Immunic shareholders made commitments, subject to the closing of the Transaction, to invest an additional 26.7 million (approximately $30.3 million at current exchange rates) in Immunic. With these funds, Immunic expects to be able to fund its operations beyond the twelve months from the filing of this registration statement.

Immunic expects to require substantial additional capital to continue and complete its clinical development activities and fund its operations. The amount and timing of Immunic s future funding requirements will depend on many factors, including the pace and results of its development, regulatory and commercialization efforts. Failure to raise capital as and when needed, on favorable terms or at all, would have a negative impact on Immunic s financial condition and its ability to develop and commercialize its product candidates.

236

Table of Contents

The following table shows a summary of Immunic s cash flows for the nine months ended September 30, 2018 and 2017 and for the years ended December 31, 2017 and 2016 (euros in thousands):

	Nine Months Ended September 30,		Year Ended December 31,	
	2018	2017	2017	2016
Net cash (used in) provided by:				
Operating activities	(5,245)	(5,326)	(7,585)	(1,448)
Investing activities	(9)	(23)	(1,026)	(2,007)
Financing activities	10,131	7,001	7,001	8,774
Net increase (decrease) in cash and cash equivalents	4,877	1,652	(1,609)	5,319

Operating Activities

Cash used in operating activities was 7.6 million for the year ended December 31, 2017 as compared to 1.4 million for the year ended December 31, 2016. The increase of 6.2 million was principally the result of a 6.9 million increase in net loss for the year ended December 31, 2017 due to the fact that Immunic was founded in 2016 and most operating activities started in September 2016, after the intellectual property rights for IMU-838 and IMU-935 had been acquired, offset mainly by changes in working capital.

Cash used in operating activities was 5.2 million for the nine months ended September 30, 2018 as compared to 5.3 million for the nine months ended September 30, 2017.

Investing Activities

Net cash used in investing activities during the years ended December 31, 2017 and 2016 relates mostly to the purchase of intellectual property for IMU-838 and IMU-935. Net cash used in investing activities during the nine months ended September 30, 2018 and September 30, 2017 relates to the purchase of office furniture and equipment.

Financing Activities

Net cash provided by financing activities was 7 million for the year ended December 31, 2017 as compared to 8.8 million during the year ended December 31, 2016. During 2017, new series A preferred stock investors IBG Risikokapitalfonds II GmbH & Co. KG, Fund+ N.V. and Global Life Bioventure V S.à r.l. (Omega Funds) contributed their share capital and made additional payments into the capital reserves of Immunic. During 2016, the founders and the initial series A investors contributed their share capital and series A investors made additional payments into the capital reserves of Immunic.

Net cash provided by financing activities was 10.1 million for the nine months ended September 30, 2018 resulting from tranche II payments into the capital reserves under the series A finance round. Net cash provided by financing activities for the nine months ended September 30, 2017 relates to new series A investors and their payments into the share capital and capital reserves.

Future Capital Requirements

Immunic has not generated any revenue from product sales. Immunic does not know when, or if, it will generate any revenue from product sales. Immunic does not expect to generate any revenue from product sales unless and until Immunic obtains regulatory approval for and commercializes any of its product candidates. At the same time, Immunic expects its expenses to increase in connection with its ongoing development and manufacturing activities, particularly as Immunic continues the research, development, manufacture and clinical trials of, and seeks regulatory approval for, Immunic s product candidates. In November and December 2018, an additional

Table of Contents

5.8 million was raised in the final tranche under the series A financing round. Immediately prior to the closing of the Transaction, Immunic expects to receive proceeds of 26.7 million (approximately $30.3 million at current exchange rates) from the financing contemplated by the Subscription Agreement. Upon the closing of the Transaction, Immunic expects to incur additional costs associated with operating as a SEC registrant. In addition, subject to obtaining regulatory approval of any of its product candidates, Immunic anticipates that it will need substantial additional funding in connection with its continuing operations.

As of September 30, 2018, Immunic had approximately 8.6 million in cash and cash equivalents. Immunic expects its research and development expenses to substantially increase in connection with Immunic s ongoing activities, particularly as it advances its product candidates in or towards clinical development.

Immunic s future capital requirements are difficult to forecast and will depend on many factors, including but not limited to:

- the terms and timing of any strategic alliance, licensing and other arrangements that Immunic may establish;
- the initiation and progress of Immunic s ongoing pre-clinical studies and clinical trials for its product candidates;
- the number of programs Immunic pursues;
- the outcome, timing and cost of regulatory approvals;
- the cost and timing of hiring new employees to support Immunic s continued growth;
- the costs involved in patent filing, prosecution, and enforcement; and
- the costs and timing of having clinical supplies of Immunic s product candidates manufactured.

Until Immunic can generate a sufficient amount of product revenue to finance its cash requirements, it expects to finance its future cash needs primarily through the issuance of additional equity, including in connection with the concurrent financing, and potentially through borrowings and strategic alliances with third parties. To the extent that Immunic raises additional capital through the issuance of additional equity or convertible debt securities, the ownership interest of Immunic s shareholders will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect the rights of existing Immunic shareholders. Debt financing, if available, may involve agreements that include covenants limiting or restricting Immunic s ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends. If Immunic raises additional funds through marketing and distribution arrangements or other collaborations, strategic alliances or licensing arrangements with third parties, Immunic may have to relinquish valuable rights to Immunic s technologies, future revenue streams, research programs or product candidates or grant licenses on terms that may not be favorable to Immunic. If Immunic is unable to raise additional funds through equity or debt financings when needed, Immunic may be required to delay,

limit, reduce or terminate its product development or commercialization efforts or grant rights to develop and market product candidates to third parties that Immunic would otherwise prefer to develop and market itself.

Off-Balance Sheet Arrangements

Immunic has not entered into any off-balance sheet arrangements and does not have any holdings in variable interest entities.

Recent Accounting Pronouncements

In January 2016, the International Accounting Standards Board, or IASB, adopted the International Financial Reporting Standard, or IFRS, 16, Leases , the new standard for lease accounting. IFRS 16 will replace International Accounting Standard, or IAS, 17 and the associated interpretations for 2019.

Table of Contents

In accordance with IFRS 16, all leases are accounted for by the lessee in such a way that the right of use associated with the lease is recognized as an asset (so-called right of use asset) on the asset side and the corresponding discounted lease liability on the liability side.

Relief is available for leased assets of low value and for leases with short terms. The lease payments for these leases can be recognized as an expense on a straight-line basis (or another systematic basis for distribution) over the term of the lease.

Under the previous IAS 17, a distinction was made between on-balance-sheet finance leases and off-balance-sheet operating leases. This distinction between two different types of leases will no longer apply for the lessee when IFRS 16 comes into force. If a contract is classified as a lease, it falls within the scope of this standard. Otherwise, it is a service contract that affects expenses.

In the case of the lessor, however, the provisions of the new standard are similar to the previous provisions of IAS 17. The criteria of IAS 17 were adopted for classification in accordance with IFRS 16. IFRS 16 also contains a number of additional regulations on the disclosure and disclosures in the notes as well as on sale and leaseback transactions.

The modified retrospective approach is applied for the transition to the new regulation. As a result, the new standard will only be applied to the most recent reporting period presented in the financial statements for 2019. The effects of the application of IFRS 16 on the consolidated financial statements are currently being examined. In principle, Immunic expects an increase in assets and liabilities reported on the balance sheet under IFRS 16, due to the scope of the operating lease agreements.

Recently Adopted Accounting Pronouncements

IFRS 9 Financial Instruments includes requirements for recognition, measurement and derecognition of financial assets and liabilities. The IASB issued the final version of the standard on July 24, 2014 in connection with the completion of the various phases of its extensive project on financial instruments. The previous recognition of financial instruments under IAS 39 Financial Instruments: Recognition and Measurement can now be fully superseded by recognition under IFRS 9. The current version of IFRS 9 supersedes all previous versions. The new standard is effective for annual period beginning on or after January 1, 2018. Early application is permitted. Immunic did apply the standard for the first time for the financial year beginning on January 1, 2018 using the modified retrospective method.

In a group-wide project, Immunic currently analyses the expected effects on the consolidated financial statements. The analysis is based on Immunic s financial assets and financial liabilities as of December 31, 2017 and of the facts and circumstances existing at this date.

In the classification and measurement of financial assets, IFRS 9 does not result in material changes. Trade receivables are still allocated to the hold business model and measured at amortized cost. The categorization under Loans and Receivables (LaR) under IAS 39 is now presented under the category Amortized cost following IFRS 9.

Cash and cash equivalents previously categorized LaR according to IAS 39 are reclassified to the category Amortized cost under IFRS 9.

The categorization of trade payables remains unchanged within the category Financial Liabilities at Amortized Cost (FLAC) under IFRS 9.

IFRS 9.5.5 introduces a new impairment model. This applies to financial assets measured at amortized cost. The previous model (incurred loss model) determined impairment on the basis of incurred losses, while the new model (expected loss model) is based on expected credit losses.

Table of Contents

Immunic applies the simplified approach according to IFRS 9 in order to measure expected credit losses; accordingly, full lifetime expected credit losses are recognized for all trade receivables.

To measure the expected losses, financial assets were grouped on the basis of shared credit risk characteristics or individual default information was consulted. In any case, the calculation is based on current default probabilities as of the respective reporting date.

Immunic has applied the modified, retrospective approach for the transition to IFRS 9. The initial application of IFRS 9 at January 1, 2018 has resulted in no significant transitional effects for Immunic.

In May 2014, the IASB published IFRS 15, Revenue from Contracts with Customers . The objective of IFRS 15 is to aggregate the revenue recognition rules included in various standards and interpretations and define basic principles applicable to all industries and all types of sales transactions with a five-step revenue recognition model. IFRS 15 determines the timing and the amount of revenue recognition. Revenue recognized should reflect the transfer of the promised goods or services to the customer at the amount corresponding to the consideration that the enterprise expects to receive in exchange for those goods or services. In addition, the new standard requires the disclosure of quantitative and qualitative information. IFRS 15 replaces IAS 11, Construction Contracts , and IAS 18, Revenue , and the related interpretations. The standard is effective for annual periods beginning on or after January 1, 2018; early adoption is permitted.

Immunic has applied the modified, retrospective approach for the transition to IFRS 15. The initial application of IFRS 15 at January 1, 2018 has resulted in no transitional effects for Immunic.

Table of Contents

QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK OF VITAL THERAPIES

Interest Rate Sensitivity

Vital Therapies had cash and cash equivalents of $17.89 million at September 30, 2018, which was held for working capital purposes. Vital Therapies does not enter into investments for trading or speculative purposes. Vital Therapies does not believe that it has any material exposure to changes in the fair value of these investments as a result of changes in interest rates due to their short-term nature. Declines or increases in interest rates, however, will reduce or increase future investment income, respectively, to the extent Vital Therapies has funds available for investment.

Foreign Currency Exchange Risk

Vital Therapies has entered and may continue to enter into international agreements, primarily related to our clinical studies. Accordingly, the company has an exposure to foreign currency exchange rates. To date, Vital Therapies has not entered into, and does not have any current plans to enter into, any foreign currency hedging transactions or derivative financial transactions. Vital Therapies expects its transactions outside of the U.S. in the near-term will primarily entail payments for clinical trials, and for vendors and consultants supporting those trials within Europe. The company s exposure to foreign currency risk will fluctuate in future periods as our clinical trial activity in Europe changes. Vital Therapies does not expect to maintain any significant amount of assets outside of the U.S.

The functional currencies of Vital Therapies foreign subsidiaries are the local currencies. Accordingly, the effects of exchange rate fluctuations on the net assets of these operations are accounted for as translation gains or losses in accumulated other comprehensive income within stockholders equity. Vital Therapies foreign subsidiaries are currently inactive and, accordingly, a change of 10% in such foreign currency exchange rates would not have a material impact on their financial position or results of operations.

Effects of Inflation

Vital Therapies does not believe that inflation and changing prices had a significant impact on its results of operations for any periods presented herein.

Table of Contents

MANAGEMENT FOLLOWING THE CLOSING OF THE TRANSACTION

Executive Officers and Directors

Termination of Current Executive Officers of Vital Therapies

The employment of the executive officers of Vital Therapies is expected to be terminated immediately prior to the completion of the Transaction.

Executive Officers and Directors of the Company Following the Closing of the Transaction

Pursuant to the Exchange Agreement, effective as of the effective time of the Transaction, the initial size of the board of directors of the company will be five and the initial directors will be comprised of four members of the current Immunic board, Dr. Daniel Vitt, CEO of Immunic, Dr. Jörg Neermann, Life Science Partners, Dr. Vincent Ossipow, Omega Funds, and Jan van den Bossche, Fund+, and Dr. Duane Nash, Chief Executive Officer, President and a director of Vital Therapies.

The following table lists the names and ages as of January 15, 2019 and positions of the individuals who are expected to serve as executive officers or non-employee directors of the company upon completion of the Transaction:

Name	Age	Position
Executive Officers		
Dr. Daniel Vitt	50	Chief Executive Officer and President and Director
Dr. Andreas Muehler	55	Chief Medical Officer
Dr. Hella Kohlhof	46	Chief Science Officer
Dr. Manfred Gröppel	50	Chief Operating Officer and Principal Financial Officer
Non-Employee Directors		
Dr. Jörg Neermann	50	Director
Dr. Vincent Ossipow	50	Director
Jan van den Bossche	40	Director
Dr. Duane Nash	47	Director

Executive Officers

Dr. Daniel Vitt. Dr. Daniel Vitt is Chief Executive Officer (CEO) and member of the board of directors of Immunic. He is also managing director of Immunic Research GmbH in Halle (Saale). He joined Immunic in January 2017 from 4SC AG, a publicly listed stock company based in Martinsried, Germany, which he co-founded in 1997. At 4SC, he served as Chief Scientific Officer (CSO) and Chief Development Officer (CDO). As a member of the executive board, he was responsible for all research and development activities at 4SC group including four clinical stage products. Dr. Vitt studied chemistry in Siegen and Würzburg, Germany from 1989 1994 and graduated from the University of Würzburg. During his doctoral studies, he focused on the molecular design of small molecule therapeutics. In 1998, he received his Ph.D. from the Institute of Organic Chemistry at the University of Würzburg.

Dr. Andreas Muehler. Dr. Andreas Muehler is a member of the board of directors and the Chief Medical Officer (CMO) of Immunic. He joined Immunic in August 2016. Dr. Muehler received his medical degree (MD) from Humboldt-University in Berlin, Germany, and an MBA degree from Duke University. After a short period in clinical

work, Dr. Muehler has worked within the pharmaceutical industry since 1992, mostly in the U.S., with leadership positions in preclinical and clinical development, business development and licensing and marketing. Since 2003, Dr. Muehler developed and managed multiple medical companies in the U.S. Among them were 3TP LLC d/b/a CAD Sciences (White Plains, NY), a medical software company developing an imaging solution for

Table of Contents

early detection of breast and prostate cancer, and Cellectar Inc. (Madison, WI), a biotech company developing new cancer therapeutics and cancer imaging agents. Dr. Muehler was also President CEO of MicroMRI Inc. (Langhorne, PA), a medical device company developing solutions for improved osteoporosis diagnosis and therapy monitoring based on bone micro-architecture. He has been on the board of directors of multiple small medical technology companies. After moving to Munich in 2009, Dr. Muehler became managing director of the small healthcare private equity fund Palladius Healthcare GmbH (Munich, Germany), which acquired distressed medical technology companies. Thereafter, Dr. Muehler worked as interim manager and independent senior medical consultant with multiple assignments for clients in the pharmaceutical and medical device industries.

Dr. Hella Kohlhof. Dr. Hella Kohlhof is a member of the board of directors and the Chief Science Officer (CSO) of Immunic and managing director of Immunic s research subsidiary, Immunic Research GmbH, Halle (Saale). She joined Immunic in January 2017 from 4SC AG, a publicly listed German biotech company, where she was responsible for the management of the clinical product portfolio. Dr. Kohlhof studied biology in Aachen, Gothenburg (Sweden) and Munich and received her doctorate in biology from the Ludwig Maximilians University of Munich (Germany). Her doctoral. and post-doctoral work was at the Institute of Clinical Molecular Biology and Tumor Genetics at the Helmholtz Centre in Munich, where she worked on normal and malignant B cell development influenced by Notch and Epstein Barr Virus mediated signaling. In 2008, she joined 4SC AG as a research scientist and group leader and established the research laboratory for translational pharmacology. She worked on 4SC s preclinical and clinical stage projects in the oncology and immunology field. From 2011 on, Dr. Kohlhof was responsible for the management and development of 4SC s epigenetic clinical stage small molecule inhibitor 4SC-202. In early 2015, as Director Development Projects, she took over responsibility for the complete development portfolio of 4SC AG.

Dr. Manfred Gröppel. Dr. Manfred Gröppel is a member of the board of directors and the Chief Operating Officer (COO) of Immunic. He joined Immunic in April 2016 from 4SC AG, a publicly listed German biotech company, for which he had worked from 2001. He began studying chemistry at the University Erlangen-Nuremberg, Germany, in 1987 and graduated in 1994. While working three years at the Siemens Research Center, Dr. Gröppel received his doctorate in chemistry from the Institute of Organic Chemistry, University Erlangen-Nuremberg, Germany, in 1997. In his role as Director Business Development at 4SC AG, Dr. Gröppel managed worldwide business development activities since 2001. Dr. Gröppel was part of the development team since 2002 and served as project leader for an autoimmune project. Prior to joining 4SC SG, Dr. Gröppel held various positions at Tripos Inc., covering business development activities in Central and South Europe, Scandinavia and Israel.

Non-Employee Directors

Dr. Jörg Neermann. Dr. Jörg Neermann Dr. Jörg Neermann is the chairman of Immunic s supervisory board. Dr. Neermann works for Life Sciences Partners (LSP) and is the managing director of LSP Services Deutschland GmbH, which provides management services for LSP V Coöperatieve U.A., one of Immunic s current shareholders. He joined LSP in 2007. Dr. Neermann s prime focus and responsibility within LSP is to invest in unlisted securities. Prior to joining LSP, Dr. Neermann was the managing director of Deutsche Venture Capital (DVC), a venture capital and private equity division of Deutsche Bank, where he ran its healthcare investment franchise. Previously, he worked at Atlas Ventures in Germany where he also invested in the healthcare sector. Dr. Neermann has a strong scientific background and hands-on finance and investment expertise and has served on the boards of numerous European biotech and life science companies. Among others, Dr. Neermann is currently a director at Probiodrug, a German biotech company that went public on Euronext Amsterdam in 2014 and is active in the development of novel, disease-modifying therapeutics against Alzheimer s disease. Dr. Neermann studied biotechnology at the Technical University of Brunswick, Germany, and the MIT in Cambridge, USA, and holds a Master s degree and a Ph.D. in biotechnology from the Technical University in Brunswick, Germany. He also studied economics at the Technical University in Brunswick, Germany, and Harvard Business School, U.S.

243

Table of Contents

Immunic believes that Dr. Neermann is qualified to serve on its board of directors due to his scientific background and extensive experience as an investor in the biotechnology and healthcare industries, which will enable him to contribute important insights to the company s board of directors on strategic leadership and drug commercialization matters.

Dr. Vincent Ossipow. Dr. Vincent Ossipow is a member of Immunic s supervisory board and is a Partner at Omega Funds. Dr. Ossipow joined Omega Funds, which manages Immunic s current shareholder, Global Life Bioventure V S.à r.l., in 2014 and subsequently joined NeoMed in 2017. Previously, Dr. Ossipow worked with Sectoral Asset Management, a healthcare institutional investor, as a partner for private investments. From 2000 to 2006 he was a research fellow at the University of Geneva, studying the molecular basis of brain function, and acted as Sectoral Asset Management s Chief Scientific Officer during this period. Previously, he worked at Pictet Bank as a research analyst for biotechnology equities and as a co-manager of the Pictet Biotech Fund, a biotech-equities listed investment vehicle. Dr. Ossipow trained as a postdoctoral fellow in Geneva (Hoffman-La-Roche and Human Frontier Science Program fellow) and at the National Cancer Institute in Bethesda, MD. He completed a Certificate in International Finance and Global Markets at the Georgetown University School of Business and holds an M.S. in computational sciences, an M.S. in molecular biology, and a Ph.D. in molecular biology, all from the University of Geneva. Dr. Ossipow holds a CFA designation (Chartered Financial Analyst) from the CFA Institute

Immunic believes that Dr. Ossipow s extensive experience as a biotechnology investor and analyst, along with his financial and commercial expertise in the biotechnology industry, will enable him to contribute important insights to the company s board of directors on strategic leadership and financial matters and qualifies him to serve on the company s board of directors.

Jan van den Bossche. Jan Van den Bossche is a member of Immunic s supervisory board and is a partner at Immunic s current shareholder, Fund+ N.V. He holds a master s degree in applied economic sciences from the KULeuven, Belgium. He worked for more than 12 years as a biotech analyst at Petercam. He was involved in several public and private transactions of Belgian and Dutch Biotech companies, such as ThromoboGenics, Tigenix, UCB, AMT (Uniqure), IBA, MDxHealth. Before Mr. van den Bossche joined Fund+, he was for more than two years part of the investor relations team at the Dutch life sciences and materials sciences company DSM, Geleen, The Netherlands.

Immunic believes that Mr. van den Bossche s past experience as a biotech analyst and his experience with public and private transactions qualifies him to serve as a member of the company s board of directors.

Dr. Duane Nash. Dr. Nash joined Vital Therapies, Inc. in 2012, where he has held various leadership roles, including Medical Director, Executive Vice President, Chief Business Officer, President, and, as of January 2019, Chief Executive Officer. Prior to joining Vital Therapies, Dr. Nash held various positions at Wedbush PacGrow Life Sciences, an investment bank, where he was employed from March 2009 to March 2012, serving most recently as Senior Vice President in Equity Research. Before that, he was a research analyst at Pacific Growth Equities, an investment bank, from April 2008 through March 2009, which was subsequently acquired by Wedbush Securities, Inc. Dr. Nash also practiced as an attorney from November 2002 to February 2008, most recently at the law firm of Davis Polk, where he focused on intellectual property litigation and corporate matters. Dr. Nash served on the board of directors of Aerpio Pharmaceuticals, Inc. (Nasdaq: ARPO), from 2012 to 2017, and Akebia Therapeutics (Nasdaq: AKBA) from 2013 to 2018. Dr. Nash earned a B.A. in biology from Williams College, an M.D. from Dartmouth Medical School, a J.D. from the University of California, Berkeley, and a M.B.A. from the University of Oxford. Dr. Nash completed his internship in general surgery at the University of California at San Francisco.

Table of Contents

Immunic believes that Dr. Nash s expertise and experience as a Vital Therapies director and his service in various executive capacities for Vital Therapies, along with his extensive experience as an executive, research analyst and attorney, provide him with the qualifications and skills to serve on the company s board of directors.

Board of Directors of the Company Following the Transaction

Vital Therapies board of directors currently consists of four directors: Faheem Hasnain, Cheryl Cohen, Dr. Duane Nash, and Lowell E. Sears. Following the Transaction, only Dr. Nash will continue to serve as director of the company and the company s directors will also include four current members of Immunic s board of directors, namely, Dr. Vitt, Dr. Neermann, Dr. Ossipow and Mr. van den Bossche.

There are no family relationships among any of the current Vital Therapies directors and executive officers, and there are no family relationships among any of the proposed company directors and officers.

Director Independence

Nasdaq s listing standards require that Vital Therapies board of directors consist of a majority of independent directors, as determined under the applicable rules and regulations of The Nasdaq Stock Market LLC.

Based upon information requested from and provided by each proposed director concerning his or her background, employment and affiliations, including family relationships, Immunic s board of directors believes that each of Dr. Neermann, Dr. Ossipow and Mr. van den Bossche, will qualify as an independent director following the completion of the Transaction. Immunic s board of directors believes that than Dr. Vitt, by virtue of his position as chief executive officer of Immunic, and Dr. Nash, by virtue of his recent service as an executive officer of Vital Therapies, will not qualify as an independent director following the completion of the Transaction.

Committees of the Board of Directors

Vital Therapies board of directors currently has, and following the completion of the Transaction will continue to have, the following committees: audit committee, a compensation committee and a nominating and corporate governance committee.

Audit Committee

The Audit Committee currently consists of Mr. Sears as chair, Ms. Cohen and Mr. Hasnain, each of whom is an independent, non-employee director. The Audit Committee selects, on behalf of Vital Therapies board of directors, an independent public accounting firm to audit Vital Therapies financial statements, discusses with the independent auditors their independence, reviews and discusses the audited financial statements with the independent auditors and management, recommends to Vital Therapies board of directors whether the audited financials should be included in Vital Therapies annual reports to be filed with the SEC, and oversees management s identification, evaluation, and mitigation of major risks to Vital Therapies. The Audit Committee operates pursuant to a written charter.

The audit committee of the company is expected to retain these duties and responsibilities following completion of the Transaction.

Vital Therapies board of directors has determined Mr. Sears qualifies as an audit committee financial expert as defined in SEC rules and regulations and also possesses the financial sophistication and requisite experience as required under Nasdaq listing standards.

Following the closing of the Transaction, the members of the audit committee are expected to be Mr. van den Bossche, who is expected to serve as chair and as an audit committee financial expert as defined in

Table of Contents

Item 407(d)(5) of Regulation S-K, Dr. Neermann and Dr. Ossipow. To qualify as independent to serve on Immunic s audit committee, listing standards of The Nasdaq Stock Market and the applicable rules of the SEC require that a director not accept any consulting, advisory, or other compensatory fee from Vital Therapies, other than for service as a director, or be an affiliated person of Vital Therapies. Vital Therapies board of directors has concluded that the current composition of the audit committee meets the requirements for independence under the rules and regulations of The Nasdaq Stock Market LLC and of the SEC. Immunic believes that, following completion of the Transaction, the composition of the audit committee will comply with the applicable requirements of the rules and regulations of The Nasdaq Stock Market LLC and of the SEC.

Compensation Committee

The Compensation Committee currently consists of Ms. Cohen as chair, Mr. Hasnain and Mr. Sears, each of whom is an independent director. The Compensation Committee reviews and approves (1) the annual salaries and other compensation of Vital Therapies executive officers and (2) individual stock and stock option grants. The Compensation Committee also provides assistance and recommendations with respect to Vital Therapies compensation policies and practices, and assists with the administration of Vital Therapies compensation plans. In evaluating executive officer compensation, the Compensation Committee may retain the services of compensation consultants and considers recommendations from the Chief Executive Officer with respect compensation of the other executive officers. The Compensation Committee also periodically reviews compensation for non-employee directors.

The compensation committee of the company is expected to retain these duties and responsibilities following completion of the Transaction.

Following the closing of the Transaction, the members of the compensation committee are expected to be Dr. Neermann, Dr. Ossipow and Mr. van den Bossche. To qualify as independent to serve on Vital Therapies compensation committee, the listing standards of The Nasdaq Stock Market require a director not to accept any consulting, advisory, or other compensatory fee from Vital Therapies, other than for service on Vital Therapies board of directors, and that Vital Therapies board of directors consider whether a director is affiliated with Vital Therapies and, if so, whether such affiliation would impair the director s judgment as a member of Vital Therapies compensation committee. Vital Therapies board of directors has concluded that the composition of the compensation committee meets the requirements for independence under the rules and regulations of The Nasdaq Stock Market LLC and of the SEC. Immunic believes that, after the completion of the Transaction, the composition of the compensation committee will meet the requirements for independence under, and the functioning of such compensation committee will comply with any applicable requirements of the rules and regulations of The Nasdaq Stock Market LLC and of the SEC.

Nominating and Corporate Governance Committee

The Nominating and Corporate Governance Committee currently consists of Mr. Sears as chair, Ms. Cohen and Mr. Hasnain, each of whom was determined by the Vital Therapies board of directors to be an independent director. The Nominating and Corporate Governance Committee assists the Vital Therapies board of directors in fulfilling its responsibilities by: identifying and approving individuals qualified to serve as members of the Vital Therapies board of directors, selecting director nominees for Vital Therapies annual meetings of stockholders, evaluating the performance of Vital Therapies board of directors, and developing and recommending to Vital Therapies board of directors corporate governance guidelines and oversight procedures with respect to corporate governance and ethical conduct.

In identifying and evaluating candidates, the committee takes into consideration the criteria approved by Vital Therapies board of directors and such other factors as it deems appropriate. Vital Therapies does not currently have,

and Immunic does not expect to adopt, a formal diversity policy, and the committee considers a broad range of factors in evaluating prospective director nominees. These factors may include judgment, skill, diversity, experience with businesses and other organizations of comparable size, the interplay of the candidate s

Table of Contents

experience with the experience of other members of the board of directors, and the extent to which the candidate would be a desirable addition to the board of directors and any committees of the board of directors. The Nominating and Corporate Governance Committee will consider properly submitted stockholder nominations for candidates for the board of directors. Following verification of the stockholder status of persons proposing candidates, recommendations will be aggregated and considered by the Nominating and Corporate Governance Committee. If any materials are provided by a stockholder in connection with the nomination of a director candidate, such materials will be forwarded to the Nominating and Corporate Governance Committee.

The nominating and corporate governance committee of the company is expected to retain these duties and responsibilities following completion of the Transaction.

Following the closing of the Transaction, the members of the nominating and corporate governance committee are expected to be Dr. Neermann, Dr. Ossipow and Mr. van den Bossche. Immunic believes that, after the completion of the Transaction, the composition of the corporate governance committee will meet the requirements for independence under, and the functioning of such committee will comply with any applicable requirements of the rules and regulations of The Nasdaq Stock Market LLC.

Director Compensation

Immunic does not currently have a director compensation policy. All of Immunic s directors, who also serve as employees (Dr. Vitt, Dr. Muehler, Dr. Kohlhof, and Dr. Gröppel), received cash compensation for service under their management service contracts with Immunic during 2018 (see section *Immunic Executive Compensation* below).

Furthermore, Immunic pays monthly contributions to the health insurance and nursing care insurance for the members of its board of directors and, in case of Dr. Muehler, also contributions to a professional pension scheme, and has taken out life insurance and accident insurance policies for the members of its board of directors. Drs. Muehler, Kohlhof, and Gröppel will not be directors of Vital Therapies following the closing of the Transaction.

In addition, Drs. Vitt, Muehler, Kohlhof, and Gröppel have entered into Exit Bonus Agreements to be settled by the issuance of additional common shares in Immunic in accordance with the Subscription Agreement (see section *The Transaction Interests of the Directors and Executive Officers of Immunic in the Transaction Immunic Exit Bonus Agreements* on page 144).

Immunic s supervisory board consists of Mr. Jan van den Bossche, Dr. Jörg Neermann, Dr. Vincent Ossipow, Dr. Gerhard Ries and Mr. Thomas Taapken. Mr. van den Bossche and Dr. Ossipow did not receive any cash or other compensation in 2018 for their service as supervisory board members; nor will they receive any compensation in 2019 for their service provided in 2018. In 2018, Dr. Ries received cash compensation of 25,000 (approximately $28,160) for services provided in 2017. For his services provided in 2018, he is entitled to a cash compensation of 25,000 (approximately $28,160), half of which was paid in 2018 (for services in the first half-year 2018) and the remaining half will be paid in 2019. Mr. Taapken received 217 virtual options valued at 25,000 for his services provided in 2018 under the Supervisory Board Virtual Stock Option Plan, or VSOP, (see above in the section *Immunic Virtual Stock Option Plan*). Following closing of the Transaction, the cash payment under the VSOP resulting from these phantom options will become due. Mr. Taapken did not receive any other cash compensation for services as a supervisory board member in 2018 nor will he receive any other cash compensation in 2019 for services provided in 2018.

As to Dr. Jörg Neermann, Immunic has granted Dr. Neermann 217 virtual options under the Supervisory Board VSOP (see above in the section *Immunic Virtual Stock Option Plan*) valued at 25,000 (approximately $28,160) for his services in 2018; however, Dr. Jörg Neermann is in the process of confirming whether he is permitted to accept these

virtual options.

Table of Contents

In addition, the Immunic supervisory board members are reimbursed for reasonable out-of-pocket expenses incurred for attending meetings of Immunic s supervisory board.

Compensation Committee Interlocks and Insider Participation

Following the completion of the Transaction, the members of Vital Therapies compensation committee are expected to be [ ]. Each member of the Compensation Committee is expected to be an outside director as that term is defined in Section 162(m) of the Code, a non-employee director within the meaning of Rule 16b-3 of the rules promulgated under the Exchange Act and independent within the meaning of the independent director guidelines of The Nasdaq Stock Market LLC. None of the proposed company s executive officers serves as a member of the board of directors or compensation committee of any entity that has one or more executive officers who is proposed to serve on the company s board of directors or compensation committee following the completion of the Transaction.

Immunic Executive Compensation

Immunic s executive officers for the year ended December 31, 2018 and who will serve as executive officers of the company following the Transaction, are referred to in this proxy statement/prospectus as the named executive officers. The named executive officers and their current positions are as follows:

Dr. Daniel Vitt, Chief Executive Officer and President and Director

Dr. Andreas Muehler, Chief Medical Officer

Dr. Hella Kohlhof, Chief Science Officer

Dr. Manfred Gröppel, Chief Operating Officer and Principal Financial Officer

Summary Compensation Table

The following table provides information regarding the named executive officers who will serve as executive officers of the company. For the management of the company after the closing of the Transaction, see *Management Following the Closing of the Transaction Executive Officers and Directors Executive Officers and Directors of the Company Following the Transaction* beginning on page 242.

Name and Principal Position	Fiscal Year	Salary ($) (1)	Bonus ($)	Stock awards ($)	Option awards ($)	All other compensation ($)	Total$
Dr. Daniel Vitt	2018	$246,336	$34,372				$280,709
Chief Executive Officer and President		(215,000)	(30,000)				(245,000)

Dr. Andreas Muehler *Chief Medical Officer*	2018	$178,737 (156,000)	$27,498 (24,000)	$206,235 (180,000)
Dr. Hella Kohlhof *Chief Science Officer*	2018	$137,490 (120,000)	$20,623 (18,000)	$158,113 (138,000)
Dr. Manfred Gröppel *Chief Operating Officer and Principal Financial Officer*	2018	$171,862 (150,000)	$27,498 (24,000)	$199,360 (174,000)

(1) Compensation arrangements are expressed in euros. Dollar amounts are based on current exchange rates.

Narrative Disclosure to Summary Compensation Table

Under German law, the board of directors (*Vorstand*), which consists of employee members, is the management body of the company and is responsible for the daily management of the company. The supervisory board

Table of Contents

(*Aufsichtsrat*) consists of non-employee members and is tasked with supervising the management of the company by the board of directors and appointing and dismissing the members of the board of directors. The supervisory board determines the compensation of the members of the board of directors and represents the company in negotiating and concluding the management service contracts of the members of the board of directors. Compensation of the supervisory board members is decided pursuant to a resolution adopted at the general shareholders meeting. Compensation awarded to named executive officers in 2018 consisted of base salary and variable compensation and payment of monthly contributions to the health insurance and nursing care insurance for the named executive officers, and in case of Dr. Muehler also contributions to a professional pension scheme. In addition, Immunic has taken out life insurance and accident insurance policies for the named executive officers. In setting executive compensation, Immunic s supervisory board considered compensation for comparable positions in the market, the historical compensation levels of its executives, individual performance as compared to its expectations and objectives, and the Board s desire to motivate its employees to achieve short and long-term results that are in the best interests of its shareholders, and to foster a long-term commitment to Immunic. Immunic does not target a specific competitive position or a specific mix of compensation among elements of compensation.

Following the consummation of the Transaction, Immunic expects to undertake a comprehensive review of all elements of its executive compensation program, including the function and design of its equity incentive programs.

Exit Bonus Agreement Awards

The following table presents the outstanding awards that would be indirectly paid under Exit Bonus Agreements with Drs. Vitt, Muehler, Kohlhof, and Dr. Gröppel as a result of the close of the Transaction:

Name	Outstanding Exit Bonus Agreement Awards
Dr. Daniel Vitt (1)	2% of exit proceeds less transaction costs (5)
Dr. Andreas Muehler (2)	2% of exit proceeds less transaction costs (5)
Dr. Hella Kohlhof (3)	2% of exit proceeds less transaction costs (5)
Dr. Manfred Gröppel (4)	2% of exit proceeds less transaction costs (5)

(1) Held indirectly through Listrax UG (haftungsbeschränkt).
(2) Held indirectly through Xanomed UG (haftungsbeschränkt).
(3) Held indirectly through Constanze Investments UG (haftungsbeschränkt).
(4) Held indirectly through Gröppel Investments UG (haftungsbeschränkt).
(5) See section *The Transaction Interests of the Directors and Executive Officers of Immunic in the Transaction Immunic Exit Bonus Agreements* on page 144.

In the Subscription Agreement, Immunic, its shareholders and Drs. Vitt, Muehler, Kohlhof, and Dr. Gröppel agreed that the awards under the Exit Bonus Agreements would be settled by the issuance of 6,794 new common shares in Immunic indirectly to each such officer immediately prior to the closing of the Transaction the Exit Bonus Agreements will be deemed fully settled and shall terminate. Upon the closing of the Transaction, these new common shares will be exchanged for a number of shares of Vital Therapies common stock as determined pursuant to the Exchange Ratio (see section *The Transaction Interests of the Directors and Executive Officers of Immunic in the Transaction Immunic Exit Bonus Agreements*).

Employment Agreements and Potential Payments upon Termination of Employment or Change in Control

Immunic has entered into arrangements with each of its named executive officers described below, and standard confidential information and/or inventions assignment agreements, under which each of its named executive officers has agreed not to disclose Immunic s confidential information. These arrangements are included in the management service agreements of the named executive officers. Immunic does not intend to terminate any of these contracts in connection with the Transaction.

Table of Contents

If, however, any of these contracts is terminated following the Transaction, the named executive officers would become entitled to certain severance payments. The management service contracts of Immunic s named executive officers provide that if Immunic terminates the executive officer s management service contract without an important reason after a change in control (purchase of more than 50% of Immunic s shares or a similar transaction), then the executive officer is entitled to receive, in addition to his or her regular compensation until the termination date, a settlement payment. The settlement payment is defined to be an amount equal to the greater of (i) the entire compensation the executive officer would have received, had his or her contract run until the end of its regular term, which is December 31, 2019 for Drs. Vitt and Kohlhof, and August 31, 2019 for Drs. Muehler and Gröppel and (ii) the compensation that such executive officer would have received for 15 months following such termination (even if the actual remaining term is less than 15 months); provided that in no event can the severance payment exceed an amount equal to three years of the applicable annual compensation.

Compensation Risk Management

Immunic has considered the risk associated with its compensation policies and practices for all employees and believes it has designed its compensation policies and practices in a manner that does not create incentives that could lead to excessive risk taking that would have a material adverse effect on Immunic.

Employment Benefits Plans

Vital Therapies Equity Incentive Plan and Inducement Equity Inventive Plan

Vital Therapies 2014 Equity Incentive Plan, or the 2014 Plan, became effective in April 2014 and replaced its 2012 Stock Option Plan, or the 2012 Plan, with respect to future awards. The 2014 Plan provides for the grant of stock options, restricted stock, restricted stock units, stock appreciation rights, performance awards and performance units to employees, directors and consultants. The 2012 Plan provided for the grant of stock options, restricted stock, restricted stock units, stock purchase rights and performance awards to employees, directors and consultants.

Shares available for grant under the 2014 Plan include any shares remaining available or becoming available in the future under the 2012 Plan due to cancellation or forfeiture. In addition, the 2014 Plan provides for annual increases in the number of shares available for issuance thereunder beginning upon its effective date in April 2014, and on each annual anniversary, equal to the lower of:

- 1,200,000 shares of Vital Therapies common stock;
- 3% of the outstanding shares of Vital Therapies common stock on the second-to-the-last day prior to each anniversary date of the effectiveness date of Vital Therapies initial public offering; or
- an amount as Vital Therapies board of directors may determine.

In September 2017, Vital Therapies board of directors approved the 2017 Inducement Equity Incentive Plan, or the Inducement Plan, and amended and restated the Inducement Plan in November 2017, or the Inducement Plan, which has terms and conditions substantially similar to the 2014 Plan. Under the Inducement Plan, 1,850,000 shares of Vital Therapies common stock were reserved to be used exclusively for non-qualified grants to individuals who were not previously Vital Therapies employees or directors as an inducement material to the individual s entry into employment

with the company within the meaning of applicable Nasdaq rules.

Option grants made under the 2014 Plan and the 2012 Plan generally vest over one year or ratably over four years except for performance-based stock options. Vital Therapies performance-based stock options were set to become fully vested and exercisable only on achievement of the performance conditions while the participant was a continuing service provider. Options granted under the Inducement Plan vested 25% on the one year anniversary of the grant date and then vest ratably over an additional three years, or ratably over four years. Options generally expire ten years from the grant date or earlier in accordance with the terms of the plans and the related stock option agreement.

Table of Contents

Immunic Virtual Stock Option Plan

Immunic has a Virtual Stock Option Program for Members of the Supervisory Board dated August 26, 2017, or the Supervisory Board VSOP, which provides for the grant of up to 1,840 virtual options to certain members of Immunic s supervisory board as beneficiaries. The virtual options under the Supervisory Board VSOP are modeled as phantom stock options: the beneficiaries do not acquire the right to acquire shares in Immunic at a predetermined price in the event that the option is exercised; instead, the beneficiary receives a direct cash payment (after deduction of taxes and charges) in an amount equal to the return the beneficiary would have received had the beneficiary sold shares in Immunic. Virtual stock options under the Supervisory Board VSOP are granted at the Immunic general shareholders meeting. The terms of the virtual options are set forth in separate grant letters with each beneficiary.

The virtual options are exercised automatically in case of an Immunic exit event. An exit event comprises, among other things, a direct or indirect initial public offering of Immunic s shares and the sale and transfer of at least 50% of Immunic s shares; the Transaction, upon its closing, constitutes such an exit event. The payment upon an exit event is calculated by multiplying the number of virtual options with the value of an Immunic common share at the time of the exit event.

In addition, Immunic has a Virtual Stock Option Plan for Key Employees and Advisors dated April 30, 2018, or the Employee and Advisor VSOP, which provides for the grant of up to 1,840 virtual options to certain employees and advisors of Immunic as beneficiaries. The virtual options under the Employee and Advisor VSOP are modeled as phantom stock options: the beneficiaries do not acquire the right to acquire shares in Immunic at a predetermined price in the event that the option is exercised; instead, the beneficiary receives a direct cash payment (after deduction of taxes and charges) in an amount equal to the return the beneficiary would have received had the beneficiary sold shares in Immunic. The board of directors and the supervisory board are responsible for determining how many virtual options are granted and how they are allocated to the beneficiaries under the Employee and Advisor VSOP. The virtual options are granted to the respective beneficiaries by way of separate grant letters.

The virtual options are exercised automatically in case of an Immunic exit event. An exit event comprises, among other things, a direct or indirect initial public offering of Immunic s shares and the sale and transfer of at least 50% of Immunic s shares; the Transaction, upon its closing, constitutes such an exit event. The payment upon an exit event is calculated by multiplying the number of virtual options with the value of an Immunic common share at the time of the exit event.

Table of Contents

CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

Described below are the transactions and series of similar transactions since January 1, 2018 in which:

- the amounts involved exceeded or will exceed $120,000; and
- any of the directors, executive officers, holders of more than 5% of capital stock of the company (sometimes referred to as 5% stockholders below) or any member of their immediate family had or will have a direct or indirect material interest.

This Information is in addition to the information described in the sections of this proxy statement/prospectus entitled *The Transaction Interests of the Directors and Executive Officers of Vital Therapies in the Transaction* and *The Transaction Interests of the Directors and Officers of Immunic in the Transaction Indemnification and Directors and Officers Insurance Following the Closing of the Transaction*

Vital Therapies Related Party Transactions

Senior Preferred Investors Rights Agreement

We and certain of our directors, executive officers and stockholders are parties to the Senior Preferred IRA. The Senior Preferred IRA contains customary preemptive rights in favor of our stockholders party thereto, as well as customary registration rights and related provisions, including customary market standoff provisions. All preemptive rights in favor of our stockholders under the Senior Preferred IRA terminated upon the closing of our initial public offering.

The Senior Preferred IRA also provides that, for so long as certain investors hold at least specified percentages of our outstanding common stock, those investors have the right to nominate specified percentages of our directors. These investors currently hold less than 2% of our outstanding common stock, so they do not have the contractual right to nominate any representatives to our board of directors.

Indemnification of Officers and Directors

We have entered into indemnification agreements with each of our directors and executive officers. The indemnification agreements and our amended and restated certificate of incorporation and amended and restated bylaws require us to indemnify our directors, executive officers and certain controlling persons to the fullest extent permitted by Delaware law.

Related-Person Transactions Policy

Vital Therapies adopted a written Related Person Transactions Policy that sets forth its policies and procedures regarding the identification, review, consideration, approval and oversight of related person transactions.

For purposes of Vital Therapies policy only, a related-person transaction is a past, present or future transaction, arrangement or relationship (or any series of similar transactions, arrangements or relationships) in which we and any related person are participants, the amount involved exceeds $120,000 and a related person has a direct or indirect material interest. Various transactions are not covered by this policy, including transactions involving compensation

for services provided to us as an employee, director, consultant or similar capacity by a related person, equity and debt financing transactions with a related person that are approved by the Board, and other transactions not otherwise required to be disclosed under Item 404 of Regulation S-K. A related person, as determined since the beginning of our last fiscal year, is any executive officer, director or nominee to become director, a holder of more than 5% of our common stock, including any immediate family members of such persons. Any related-person transaction may only be consummated if approved or ratified by the affirmative vote of 75% of our disinterested directors then in office in accordance with the policy guidelines set forth below.

Table of Contents

Under the policy, where a transaction has been identified as a related-person transaction, management must present information regarding the proposed related-person transaction to our audit committee for review and recommendation for approval to our board of directors. In considering related-person transactions, our audit committee and board of directors take into account the relevant available facts and circumstances including, but not limited to whether the terms of such transaction are no less favorable than terms generally available to an unaffiliated third party under the same or similar circumstances and the extent of the related person s interest in the transaction. In the event a director has an interest in the proposed transaction, the director must recuse himself or herself from the deliberations and approval process.

Immunic Related Party Transactions

Affiliations with 5% Shareholders

On August 25, 2017, the persons and entities who were Immunic shareholders at that time, Immunic, Global Life Bioventure V S.à r.l. and Fund+ N.V. entered into an accession and amendment agreement pursuant to which:

Global Life Bioventure V S.à r.l. and Fund+ N.V. acceded to Immunic s shareholders agreement and investment agreement and

certain amendments to the shareholders agreement and investment agreement were made.

On December 14, 2018, the Immunic shareholders at that time (now including Global Life Bioventure V S.à r.l. and Fund+ N.V.), Immunic and the four Founder Vehicles entered into the Third Accession and Amendment Agreement to the Investment and Shareholders Agreements relating to Immunic AG, dated August 10, 2016, as amended from time to time. According to this agreement, the four Founder Vehicles, to whom Dr. Vitt, Dr. Muehler, Dr. Kohlhof, and Dr. Gröppel had transferred their respective ordinary Immunic shares, acceded to the existing investment and shareholders agreement and certain amendments were made.

In January 2017, Dr. Hella Kohlhof, a member of Immunic s board of directors, entered into an amendment agreement with respect to her management service contract with Immunic.

Entry into Subscription Agreement and Private Placement of Common Shares

On January 6, 2019, immediately prior to the execution of the Exchange Agreement, Immunic entered into the Subscription Agreement, with all current shareholders of Immunic as well as certain of Immunic s executive officers and directors, namely Dr. Daniel Vitt, Dr. Andreas Muehler, Dr. Hella Kohlhof, and Dr. Manfred Gröppel, pursuant to which the Immunic shareholders made commitments, subject to the closing of the Transaction, to invest an aggregate amount of 26,677,176 (approximately $30 million) in Immunic immediately prior to the consummation of the Transaction. The Subscription Agreement provides that, in order to effect this concurrent investment of 26,677,176 and as part of the closing of the Transaction, Immunic s registered share capital shall be increased from 362,997 by 156,920 to 519,917 in return for cash contributions, all existing preferred shares in Immunic shall be converted into common shares, and that the Immunic shareholders who subscribe to the new common shares shall make payments into the capital reserves of Immunic of 26,520,256 in aggregate.

Upon the consummation of the Transaction, the Immunic common shares issued pursuant to the Subscription Agreement will automatically be exchanged for a number of shares of Vital Therapies common stock based on the

Exchange Ratio.

Furthermore, the Subscription Agreement and the consummation of the financing contemplated by the Subscription Agreement, is subject to the condition subsequent that Immunic s board of directors has informed a certain representative of the parties to the Subscription Agreement that the closing of the Transaction has not occurred by June 30, 2019, in which case the Subscription Agreement shall be of no further force or effect and all

Table of Contents

rights and obligations under the Subscription Agreement shall cease to exist and any and all actions thereunder shall be unwound.

The funds provided by the Immunic shareholder IBG Risikokapitalfonds II GmbH & Co. KG (IBG) will need to be used for certain projects connected to Saxony-Anhalt as set out in the Subscription Agreement and its exhibits. Other than this, management will have broad discretion as to the use of the proceeds raised pursuant to the Subscription Agreement.

Immunic Exit Bonus Agreements

Immunic s executive officers Dr. Daniel Vitt, Dr. Andreas Muehler, Dr. Hella Kohlhof, and Dr. Manfred Gröppel each entered into an exit bonus agreement with Immunic on December 4, 2018 that provides each of such executive officers and directors with the right to receive an exit bonus consisting of a 2% share in the proceeds (less transaction costs) resulting from a transaction which constitutes an Immunic exit event. An exit event comprises, among other things, a direct or indirect initial public offering of Immunic s shares and the sale and transfer of at least 50% of Immunic s shares; the Transaction, upon its closing, constitutes such an exit event. If the proceeds from the exit event consist of consideration in kind (e.g. shares), the exit bonus shall also be rendered in kind. Each of these executive officers transferred his/her rights under the respective exit bonus agreement to a limited liability company founded and controlled by such executive officer Dr. Daniel Vitt to Listrax UG (haftungsbeschränkt), Dr. Andreas Muehler to Xanomed UG (haftungsbeschränkt), Dr. Hella Kohlhof to Constanze Investments UG (haftungsbeschränkt), and Dr. Manfred Gröppel to Gröppel Investments UG (haftungsbeschränkt), or these limited liability companies as the Founder Vehicles.

In the Subscription Agreement, Immunic, its shareholders (including the Founder Vehicles) and Dr. Daniel Vitt, Dr. Andreas Muehler, Dr. Hella Kohlhof, and Dr. Manfred Gröppel agreed that the claims of the Founder Vehicles under the exit bonus agreement shall in each case be settled by the issuance of 6,794 new common shares in Immunic to each Founder Vehicle. Upon the closing of the Transaction, the new common shares in Immunic issued to the Founder Vehicles will be exchanged for a number of shares of Vital Therapies common stock as determined pursuant to the Exchange Ratio.

Table of Contents

The table below sets forth the number of Immunic common shares agreed to be subscribed and the issue price (consisting of share capital contributions and payments into Immunic s capital reserves) for the Immunic common shares for each subscriber that is a director, executive officer or 5% shareholder of Immunic.

Name of Subscriber	Shares of Common Stock (#)	Issue Price ( )
Directors and Executive Officers		
Dr. Daniel Vitt (1)	6,794 (5)	6,794
Dr. Andreas Muehler (2)	6,794 (5)	6,794
Dr. Hella Kohlhof (3)	6,794 (5)	6,794
Dr. Manfred Gröppel (4)	6,794 (5)	6,794
5% shareholders of Immunic		
LSP V Coöperatieve U.A.	30,428	6,250,000
Eckenstein-Geigy-Stiftung	6,086	1,250,000
Bayern Kapital Innovationsfonds GmbH & Co. KG (6)	1,217	250,000
Wachstumsfonds Bayern GmbH & Co. KG (6)	4,868	1,000,000
IBG Risikokapitalfonds II GmbH & Co. KG	4,868	1,000,000
Fund+ N.V.	37,487	7,700,000
Global Life Bioventure V S.à r.l.	37,487	7,700,000
High-Tech Gründerfonds II GmbH & Co. KG (7)	7,303	1,500,000

(1) Held indirectly through Listrax UG (haftungsbeschränkt).
(2) Held indirectly through Xanomed UG (haftungsbeschränkt).
(3) Held indirectly through Constanze Investments UG (haftungsbeschränkt).
(4) Held indirectly through Gröppel Investments UG (haftungsbeschränkt).
(5) To be issued in connection with claims under certain exit bonus agreements which will be settled by issuance of the additional common shares.
(6) Bayern Kapital Innovationsfonds GmbH & Co. KG and Wachstumsfonds Bayern GmbH & Co. KG are funds which are both managed by Bayern Kapital GmbH, a subsidiary of LfA Förderbank Bayern, Munich, which also holds (directly and indirectly) limited partner and general partner interests in the two funds.
(7) High-Tech Gründerfonds II GmbH & Co. KG owns less than 5% of the outstanding Immunic shares and is included here to show full subscription in the concurrent financing.

Exchange Agreement

Each shareholder of Immunic as of January 6, 2019, is a party to the Exchange Agreement.

Director and Executive Officer Compensation

For information regarding the compensation of Immunic s executive officers and directors, see the sections entitled *Management Following the Closing of the Transaction Immunic Executive Compensation* and *Management Following the Transaction Director Compensation* beginning on pages 248 and 247, respectively.

Change of Control and Severance Benefit Agreements

For a description of change of control and severance benefit agreements applicable to Immunic s executive officers and directors, see the section entitled *The Transaction Interests of the Directors and Executive Officers of Immunic in the Transaction* beginning on page 143.

Table of Contents

Director and Officer Indemnification and Insurance

Immunic has purchased directors and officers liability insurance. Following the closing of the Transaction, the company intends to enter into indemnification agreements with each of its directors and executive officers that may be broader than the specific indemnification provisions contained in the DGCL and the Exchange Agreement. These indemnification agreements will require the company, among other things, to indemnify its directors and executive officers against liabilities that may arise by reason of their status or service. These indemnification agreements also require the company to advance all expenses incurred by the directors and executive officers in investigating or defending any such action, suit or proceeding.

Policies and Procedures Regarding Related Party Transactions

While Immunic does not have a formal written policy or procedure for the review, approval or ratification of related party transactions, Immunic s board of directors reviews and considers the interests of its directors, executive officers and principal shareholders in its review and consideration of transactions and obtains the approval of non-interested directors when it determines that such approval is appropriate under the circumstances; in transactions between a member of Immunic s board of directors and Immunic such as the conclusion of a management service contract or an agreement like the Exit Bonus Agreements, Immunic is represented by the supervisory board instead of its board of directors.

Table of Contents

DESCRIPTION OF CAPITAL STOCK

General

The authorized capital stock of Vital Therapies consists of 130,000,000 shares of common stock, $0.0001 par value per share, and 20,000,000 shares of preferred stock, $0.0001 par value per share.

As of January 15, 2019, there were:

- 42,369,694 shares of common stock outstanding;
- 0 shares of preferred stock outstanding;
- 2,196,826 shares of common stock reserved for the exercise of options outstanding;
- 1,960,826 shares of common stock reserved for future issuance under the company s equity incentive plans;
- 5,100,000 shares of common stock issuable pursuant to the vesting of RSUs; and
- 240,620 shares of common stock reserved for the exercise of warrants outstanding.

The following description of the capital stock of Vital Therapies is not complete and may not contain all the information you should consider before investing in Vital Therapies capital stock. This description is summarized from, and qualified in its entirety by reference to, the amended and restated certificate of incorporation of Vital Therapies, which has been filed with the SEC. See *Where You Can Find More Information*.

Common Stock

Voting

Each holder of common stock is entitled to one vote for each share on all matters submitted to a vote of the stockholders, including the election of directors. Our amended and restated certificate of incorporation and second amended and restated bylaws do not provide for cumulative voting rights. Because of this absence of cumulative voting, the holders of a majority of the shares of common stock entitled to vote in any election of directors can elect all of the directors standing for election, if they should so choose. In addition, our amended and restated certificate of incorporation also provides that our directors may be removed only for cause by the affirmative vote of the holders of at least 75% of the combined voting power of all our stockholders entitled to vote on the election of directors, voting together as a single class.

Subject to supermajority votes for some matters, matters shall be decided by the affirmative vote of our stockholders having a majority in voting power of the votes cast by the stockholders present or represented and voting on such matter, provided that the holders of our common stock are not allowed to vote on any amendment to our amended and

restated certificate of incorporation that relates solely to the terms of one or more series of preferred stock if the holders of such affected series are entitled, either separately or together with the holders or one or more such series, to approve such amendment. The affirmative vote of the holders of at least 75% of the votes that all of our stockholders would be entitled to cast in any annual election of directors and, in some cases, the affirmative vote of a majority of minority stockholders entitled to vote in any annual election of directors are required to amend or repeal our bylaws, amend or repeal certain provisions of our amended and restated certificate of incorporation, approve certain transactions with certain affiliates, or approve the sale or liquidation of Vital Therapies. The vote of a majority of the minority of stockholders applies when an individual or entity and its affiliates or associates together own more than 50% of the voting power of our then outstanding capital stock, excluding any such person that owned 15% or more of our outstanding voting stock immediately prior to our initial public offering, and such a vote would require the approval of the majority of our voting stock, excluding the voting stock held by such a majority holder.

Table of Contents

Dividends

Subject to preferences that may be applicable to any then outstanding preferred stock, holders of common stock are entitled to receive ratably those dividends, if any, as may be declared from time to time by our board of directors out of legally available funds.

Liquidation

In the event of our liquidation, dissolution or winding up, holders of common stock will be entitled to share ratably in the net assets legally available for distribution to stockholders after the payment of all of our debts and other liabilities and the satisfaction of any liquidation preferences that may be granted to the holders of any then outstanding shares of preferred stock.

Rights and Preferences

Holders of common stock have no preemptive, conversion or subscription rights, and there are no redemption or sinking fund provisions applicable to the common stock. The rights, preferences and privileges of the holders of common stock are subject to, and may be adversely affected by, the rights of the holders of shares of any series of preferred stock, which we may designate and issue in the future.

Fully Paid and Nonassessable

All of our outstanding shares of common stock are, and the shares of common stock to be issued under this prospectus, when paid for, will be fully paid and nonassessable.

Preferred Stock

Our board of directors has the authority, without further action by the stockholders, to issue up to 20,000,000 shares of preferred stock in one or more series and to fix the rights, preferences, privileges and restrictions thereof. These rights, preferences and privileges could include dividend rights, conversion rights, voting rights, redemption rights, liquidation preferences, sinking fund terms and the number of shares constituting any series or the designation of such series, any or all of which may be greater than the rights of common stock.

Our board of directors may authorize the issuance of preferred stock with voting or conversion rights that could adversely affect the voting power or other rights of the holders of common stock. The issuance of preferred stock, while providing flexibility in connection with possible acquisitions and other corporate purposes, could, among other things, have the effect of delaying, deferring or preventing a change in control of our company and may adversely affect the market price of the common stock and the voting and other rights of the holders of common stock. No shares of preferred stock are outstanding, and we have no present plan to issue any shares of preferred stock.

Stock Options

As of January 15, 2019, we had outstanding options to purchase an aggregate of 2,196,826 shares of our common stock pursuant to our equity plans, at a weighted-average exercise price of $6.8878 per share. As of January 15, 2019, 110,826 shares of our common stock remain available for future grant or issuance under our 2014 Equity Incentive Plan and 1,850,000 shares are available for grant under our 2017 Inducement Equity Incentive Plan, each as amended.

RSUs

As of January 15, 2019, we had outstanding 5,100,000 RSUs.

Table of Contents

Warrants

As of January 15, 2019, we had outstanding warrants to purchase an aggregate of 240,620 shares of our common stock at an exercise price of $92.99 per share.

Anti-Takeover Effects of Delaware Law and Our Amended and Restated Certificate of Incorporation and Bylaws

Certain provisions of Delaware law, our amended and restated certificate of incorporation and our second amended and restated bylaws contain provisions that could have the effect of delaying, deferring or discouraging another party from acquiring control of us. These provisions, which are summarized below, are expected to discourage certain types of coercive takeover practices and inadequate takeover bids. These provisions are also designed in part to encourage anyone seeking to acquire control of us to first negotiate with our board of directors. We believe that the advantages gained by protecting our ability to negotiate with any unsolicited and potentially unfriendly acquirer outweigh the disadvantages of discouraging such proposals, including those priced above the then-current market value of our common stock, because, among other reasons, the negotiation of such proposals could improve their terms.

Certificate of Incorporation and Bylaws

Our amended and restated certificate of incorporation and second amended and restated bylaws include provisions that:

- authorize our board of directors to issue, without further action by the stockholders, up to 20,000,000 shares of undesignated preferred stock;
- require that any action to be taken by our stockholders be effected at a duly called annual or special meeting and not by written consent;
- specify that special meetings of our stockholders can be called only by a supermajority (75%) vote of our directors then in office;
- our board of directors may amend or repeal our bylaws only pursuant to a supermajority (75%) vote of our directors then in office;
- our stockholders may amend or repeal our bylaws only pursuant to a supermajority (75% and majority of the minority, if applicable) vote of the outstanding shares of our capital stock;
- require in general the approval of a supermajority (75% and majority of the minority, if applicable) vote of our outstanding shares of capital stock to amend or repeal certain provisions of our amended and restated certificate of incorporation;

require the approval of a supermajority (75% and majority of the minority, if applicable) vote of our outstanding shares of capital stock to approve the sale or liquidation of the company;

establish an advance notice procedure for stockholder approvals to be brought before an annual meeting of our stockholders, including proposed nominations of persons for election to our board of directors;

provide that directors may be removed only for cause by a supermajority (75%) vote of our outstanding shares of capital stock;

provide that vacancies on our board of directors may be filled only by a majority of directors then in office, even though less than a quorum;

provide that in general the number of directors on our board may only be fixed from time to time by a supermajority (75%) vote of our directors then in office; and

establish that our board of directors is divided into three classes, Class I, Class II and Class III, with each class serving staggered terms.

Table of Contents

Delaware Anti-Takeover Statute

We have elected in our amended and restated certificate of incorporation not to be subject to Section 203 of the Delaware General Corporation Law, an anti-takeover law. In general, Section 203 prohibits a publicly-held Delaware corporation from engaging in a business combination, such as a merger, with a person or group owning 15% or more of the corporation s voting stock for a period of three years following the date the person became an interested stockholder, unless (with certain exceptions) the business combination or the transaction in which the person became an interested stockholder is approved in a prescribed manner. Accordingly, we are not subject to any anti-takeover effects of Section 203.

Listing

Our common stock is listed on The Nasdaq Global Market under the symbol VTL.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is American Stock Transfer & Trust Company, LLC. The transfer agent and registrar s address is 6201 15th Avenue, Brooklyn, New York 11219.

Table of Contents

PRINCIPAL STOCKHOLDERS OF VITAL THERAPIES

Except where specifically noted, the following information and all other information contained in this proxy statement/prospectus does not give effect to the proposed reverse stock split described in Proposal 4. In addition, the following information does not give effect to the acceleration of equity awards in connection with the Transaction as described elsewhere in this proxy statement/prospectus.

The following table sets forth the beneficial ownership of our common stock as of January 15, 2019 by:

- each person, or group of affiliated persons, who we know to beneficially own more than 5% of our common stock;
- each of our named executive officers;
- each of our current directors; and
- all of our current executive officers and directors as a group.

The percentage ownership information shown in the table is based on an aggregate of 42,369,694 shares of our common stock outstanding as of January 15, 2019.

We have determined beneficial ownership in accordance with the rules of the Securities and Exchange Commission. These rules generally attribute beneficial ownership of securities to persons who possess sole or shared voting power or investment power with respect to those securities. In addition, the rules include shares of common stock issuable pursuant to vested RSUs or RSUs vesting on or before March 16, 2019, which is 60 days after January 15, 2019, and the exercise of stock options and warrants that are either immediately exercisable or exercisable on or before March 16, 2019. These shares are deemed to be outstanding and beneficially owned by the person holding those RSUs, options and warrants for the purpose of computing the percentage ownership of that person, but they are not treated as outstanding for the purpose of computing the percentage ownership of any other person. Unless otherwise indicated, the persons or entities identified in this table have sole voting and investment power with respect to all shares shown as beneficially owned by them, subject to applicable community property laws.

Unless otherwise noted below, the address of each of the individuals and entities named in the table below is c/o Vital Therapies, Inc., 15222-B Avenue of Science, San Diego, California 92128. Beneficial ownership representing less than 1% is denoted with an asterisk (*).

	Number of Shares of Common Stock Beneficially Owned	Percentage of Common Stock Beneficially Owned

5% Stockholders:		
Victory Capital Management (1)	2,925,886	6.9%
KCK Ltd. (2)	2,788,181	6.6%
Named Executive Officers and Directors:		
Russell J. Cox		
Terence E. Winters (3)	902,029	2.1%
Duane D. Nash (4)	8,224	*
Robert A. Ashley (5)	2,000	*
Faheem Hasnain (6)	106,073	*
Cheryl L. Cohen (7)	78,153	*
Lowell E. Sears (8)	225,615	*
All current directors and executive officers as a group (8 people) (9)	431,950	1.0%

Table of Contents

(1) The address of Victory Capital Management, Inc. is 4900 Tiedeman Road, 4th Floor, Brooklyn, OH 44144. Victory Capital is the beneficial owner of 2,925,886 shares of common stock held on behalf of numerous clients who have the right to receive and the power to direct the receipt of dividends from, or the proceeds of the sale of, such common stock, and Victory Capital disclaims any ownership associated with such rights. No client has the right to receive or the power to direct the receipt of dividends from, or the proceeds from the sale of, more than 5% of the shares outstanding of common stock of Vital Therapies. This information is based solely upon a Schedule 13G filed by Victory Capital Management, Inc. on February 8, 2018 for beneficial ownership as of December 31, 2017.

(2) The address of KCK Ltd. A/C KCK Ltd. is OMC Chambers, Wickhams Cay 1, Road Town, Tortola VG1110, British Virgin Islands. KCK Ltd., through a board of directors consisting of three or more persons, has sole voting and investment power with respect to 2,788,181 shares of common stock held by KCK Ltd. This information is based solely upon a Schedule 13G filed by KCK Ltd. on February 13, 2017 for beneficial ownership as of December 31, 2016.

(3) Consists of 194,966 shares held by Terence E. Winters, 119,964 shares held by the Winters Family Trust, 427 shares that may be acquired pursuant to the exercise of warrants held of record by Terence E. Winters, and options to purchase 586,672 shares of common stock that are exercisable. The shares held are based solely on the Form 4 for Dr. Winters dated June 14, 2017. Dr. Winters was formerly the chief executive officer of Vital Therapies.

(4) Consists of 8,224 shares held by Duane D. Nash.

(5) Consists of 2,000 shares held by Robert A. Ashley.

(6) Consists of 4,500 shares held by Faheem Hasnain, 3,500 shares held by Faheem Hasnain Trust and options to purchase 98,073 shares of common stock that are exercisable or become exercisable within 60 days of January 15, 2019.

(7) Consists of options to purchase 78,153 shares of common stock that are exercisable or become exercisable within 60 days of January 15, 2019.

(8) Consists of 58,572 shares held and options to purchase167,043 shares of common stock that are exercisable or become exercisable within 60 days of January 15, 2019.

(9) Consists of 88,681 shares held or beneficially owned and options to purchase 343,269 shares of common stock that are exercisable or become exercisable within 60 days of January 15, 2019.

Table of Contents

PRINCIPAL SHAREHOLDERS OF IMMUNIC

The following table sets forth certain information with respect to the beneficial ownership of Immunic common and preferred shares as of January 15, 2019 (except where otherwise indicated) for:

- each person, or group of affiliated persons, who own beneficially own more than 5% of the outstanding Immunic common and preferred shares;
- each of the Immunic directors;
- each of the Immunic named executive officers; and
- all of the current directors and executive officers of Immunic as a group.

Name of Beneficial Owner	Immunic Shares Owned	Common Shares Owned	Preferred Shares Series A-1 Owned	Preferred Shares Series A-2	Total Shareholding (in %)
LSP V Coöperatieve U.A.	97,250	3,500	5,000	88,750	26.79%
Eckenstein-Geigy-Stiftung	31,250		1,660	29,590	8.61%
Bayern Kapital Innovationsfonds GmbH & Co. KG (1)	20,833		260	20,573	5.74%
Wachstumsfonds Bayern GmbH & Co. KG (1)	20,833		260	20,573	5.74%
IBG Risikokapitalfonds II GmbH & Co. KG	41,666			41,666	11.48%
Fund+ N.V.	43,478			43,478	11.98%
Global Life Bioventure V S.à r.l.	43,478			43,478	11.98%
Directors and Executive Officers					
Dr. Daniel Vitt (2)	15,000				4.13%
Dr. Andreas Muehler (3)	10,000				2.75%
Dr. Hella Kohlhof (4)	10,000				2.75%
Dr. Manfred Gröppel (5)	10,000				2.75%
Dr. Gerhard Ries	1,834	1,500	18	316	0.51%
Dr. Jörg Neermann					
Dr. Thomas Taapken					
Dr. Vincent Ossipow					
Jan van den Bossche					
All current directors and executive officers of Immunic as a group (nine persons)	46,834				12.90%

(1) Bayern Kapital Innovationsfonds GmbH & Co. KG and Wachstumsfonds Bayern GmbH & Co. KG are funds which are both managed by Bayern Kapital GmbH, a subsidiary of LfA Förderbank Bayern, Munich, which also holds (directly and indirectly) limited partner and general partner interests in the two funds.
(2) All shares held indirectly through Listrax UG (haftungsbeschränkt).
(3) All shares held indirectly through Xanomed UG (haftungsbeschränkt).
(4) All shares held indirectly through Constanze Investments UG (haftungsbeschränkt).
(5) All shares held indirectly through Gröppel Investments UG (haftungsbeschränkt).

Table of Contents

The above information with respect to the beneficial ownership of Immunic common and preferred shares will be updated as follows, once the financing contemplated by the Subscription Agreement is consummated, which includes the conversion of existing preferred shares into common shares and the issuance of new common shares to certain Immunic shareholders pursuant to the exit bonus agreements:

Name of Beneficial Owner	Immunic Shares Owned after the Consummation of the Financing contemplated by the Subscription Agreement and the Issuance of Exit Bonus Agreement Shares	Total Shareholding after the Consummation of the Financing contemplated by the Subscription Agreement and the Issuance of Exit Bonus Agreement Shares (in %)
Each person, or group of affiliated persons, who own beneficially own more than 5% of the outstanding Immunic common and preferred shares		
LSP V Coöperatieve U.A.	127,678	24.56%
Eckenstein-Geigy-Stiftung	37,336	7.18%
Bayern Kapital Innovationsfonds GmbH & Co. KG (1)	22,050	4.24%
Wachstumsfonds Bayern GmbH & Co. KG (1)	25,701	4.94%
IBG Risikokapitalfonds II GmbH & Co. KG	46,534	8.95%
Fund+ N.V.	80,965	15.57%
Global Life Bioventure V S.à r.l.	80,965	15.57%
Directors and Executive Officers		
Dr. Daniel Vitt (2)	21,794	4.19%
Dr. Andreas Muehler (3)	16,794	3.23%
Dr. Hella Kohlhof (4)	16,794	3.23%
Dr. Manfred Gröppel (5)	16,794	3.23%
Dr. Gerhard Ries	1,834	0.35%
Dr. Jörg Neermann		
Dr. Thomas Taapken		
Dr. Vincent Ossipow		
Jan van den Bossche		
All current directors and executive officers of Immunic as a group (nine persons)	74,010	14.23%

(1) Bayern Kapital Innovationsfonds GmbH & Co. KG and Wachstumsfonds Bayern GmbH & Co. KG are funds which are both managed by Bayern Kapital GmbH, a subsidiary of LfA Förderbank Bayern, Munich, which also holds (directly and indirectly) limited partner and general partner interests in the two funds.
(2) All shares held indirectly through Listrax UG (haftungsbeschränkt).
(3) All shares held indirectly through Xanomed UG (haftungsbeschränkt).
(4) All shares held indirectly through Constanze Investments UG (haftungsbeschränkt).
(5) All shares held indirectly through Gröppel Investments UG (haftungsbeschränkt).

Table of Contents

LEGAL MATTERS

Pillsbury Winthrop Shaw Pittman LLP, San Diego and Palo Alto, California will pass upon the validity of the common stock offered by this proxy statement/prospectus. The material U.S. federal income tax consequences of the Transaction will be passed upon for Immunic by Dentons LLP.

EXPERTS

The financial statements of Vital Therapies, Inc. as of December 31, 2017 and 2016, and for each of the three years in the period ended December 31, 2017 included in this proxy statement/prospectus have been so included in reliance on the report (which contains an explanatory paragraph relating to Vital Therapies requirement for additional financing to fund future operations as described in Note 1 to the consolidated financial statements) of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

The consolidated financial statements of Immunic AG as of December 31, 2017 and 2016, and for the years then ended, included in this proxy statement/prospectus have been included herein in reliance upon the report of Baker Tilly GmbH & Co. KG, an independent accounting firm, appearing elsewhere herein, and upon the authority of said firm as experts in accounting and auditing. Immunic has agreed to indemnify and hold Baker Tilly GmbH & Co. KG harmless against and from any and all legal costs and expenses incurred by Baker Tilly in defense of any legal action or proceeding and any successful claims against Baker Tilly GmbH & Co. KG exceeding the overall amount of 4 million, that arises as a result of Baker Tilly GmbH & Co. KG s consent to the inclusion of its audit report on Immunic s financial statements in this proxy statement/prospectus.

WHERE YOU CAN FIND MORE INFORMATION

Vital Therapies files annual, quarterly and special reports, proxy statements and other information with the SEC. Vital Therapies SEC filings are also available to the public from commercial document retrieval services and on the website maintained by the SEC at http://www.sec.gov.

As of the date of this proxy statement/prospectus, Vital Therapies has filed a registration statement on Form S-4 to register with the SEC the common stock that Vital Therapies will issue to Immunic shareholders in the Transaction. This proxy statement/prospectus is a part of that registration statement and constitutes a prospectus of Vital Therapies, as well as a proxy statement of Vital Therapies for the special meeting.

Vital Therapies has supplied all information contained in this proxy statement/prospectus relating to Vital Therapies, and Immunic has supplied all information contained in this proxy statement/prospectus relating to Immunic.

If you would like to request documents from Vital Therapies or Immunic, please send a request in writing or by telephone to either Vital Therapies or Immunic at the following addresses:

Vital Therapies, Inc.	Immunic AG
15222-B Avenue of Science	Am Klopferspitz 19
San Diego, California 92128	82152 Planegg-Martinsried, Germany

Attn: Corporate Secretary

Tel: (858) 673-6840

Attn: Investor Relations

Tel: +49 89 250079460

Email: info@immunic.de

Table of Contents

If you are a stockholder of Vital Therapies and would like additional copies, without charge, of this proxy statement/prospectus or if you have questions about the Transaction, including the procedures for voting your shares, you should contact the proxy solicitor for Vital Therapies:

Advantage Proxy, Inc.

Telephone: 1-877-870-8565 (toll free); 1-206-870-8565 (collect)

Email: ksmith@advantageproxy.com

TRADEMARK NOTICE

Other third-party logos and product/trade names are registered trademarks or trade names of their respective companies. Vital Therapies and ELAD are registered trademarks of Vital Therapies, and the Vital Therapies logo is a trademark of Vital Therapies. The Immunic logo is an unregistered trademark of Immunic AG. Except as set forth above and solely for convenience, the trademarks and tradenames in this proxy statement/prospectus are referred to without the ® and ™ symbols, but such references should not be construed as any indicator that their respective owners will not assert, to the fullest extent under applicable law, their rights thereto.

OTHER MATTERS

Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Exchange Act requires Vital Therapies executive officers and directors, and persons who own more than 10% of a registered class of our equity securities, to file reports of ownership and changes of ownership on Forms 3, 4 and 5 with the SEC. Such directors, executive officers and 10% stockholders are required by SEC regulations to furnish Vital Therapies with copies of all Section 16(a) forms they file.

Based solely on our review of the copies of such forms Vital Therapies has received and written representations from certain reporting persons that they filed all required reports, we believe that all of our officers, directors and greater than 10% stockholders complied with all Section 16(a) filing requirements applicable to them with respect to transactions during 2018.

Stockholder Proposals for Inclusion in Proxy Statement

Stockholders may present proper proposals for inclusion in our proxy statement and for consideration at the 2019 annual meeting of stockholders by submitting their proposals in writing to our corporate secretary in a timely manner. For a stockholder proposal to be considered for inclusion in our proxy statement for our 2019 annual meeting of stockholders, our corporate secretary must have received the written proposal at our principal executive offices not later than the close of business (5:30 p.m. Pacific Time) on December 13, 2018. In addition, stockholder proposals must comply with the requirements of Rule 14a-8 under the Exchange Act regarding the inclusion of stockholder proposals in company-sponsored proxy materials. Proposals should be addressed to:

Vital Therapies, Inc.

Attn: Corporate Secretary

15222-B Avenue of Science

San Diego, California 92128

Fax: (858) 673-6843

Stockholder Proposals and Director Nominations Not for Inclusion in Proxy Statement

Our bylaws also establish an advance notice procedure for stockholders who wish to present a proposal before an annual meeting of stockholders, but do not intend for the proposal to be included in our proxy statement and for stockholders to nominate directors for election at an annual meeting of stockholders. In order to be properly

Table of Contents

brought before our 2019 annual meeting of stockholders, if such meeting is held, the stockholder must have given timely notice of such proposal or nomination, in proper written form. To be timely for our 2019 annual meeting of stockholders, if such meeting is held, a stockholder s notice of a matter that the stockholder wishes to present, or the person or persons the stockholder wishes to nominate as a director, must be delivered to the corporate secretary of Vital Therapies at Vital Therapies principal executive offices not less than 90 days and not more than 120 days prior to the first anniversary of the date of the preceding year s annual meeting of stockholders. As a result, any written notice given by a stockholder pursuant to these provisions of our bylaws must be received by our corporate secretary at our principal executive offices:

not earlier than January 23, 2019, and

not later than February 22, 2019.

In the event that we hold our 2019 annual meeting of stockholders more than 30 days before or more than 30 days after the one-year anniversary date of the 2018 annual meeting, then such written notice must be received no later than the close of business on the later of the following two dates:

the 90th day prior to such annual meeting, or

the 10th day following the day on which public announcement of the date of such meeting is first made.

To be in proper written form, a stockholder s notice must include the specified information concerning the proposal or nominee as described in our bylaws. Notices should be addressed to:

Vital Therapies, Inc.

Attn: Corporate Secretary

15222-B Avenue of Science

San Diego, California 92128

Fax: (858) 673-6843

Communications with the Board of Directors

In cases where stockholders or other interested parties wish to communicate directly with Vital Therapies non-management directors, messages can be sent to Vital Therapies, Inc., Attention: Secretary, 15222-B Avenue of Science, San Diego, California 92128. Vital Therapies secretary monitors these communications and will provide a summary of all received messages to the Vital Therapies board of directors at each regularly scheduled meeting of the board. Vital Therapies board of directors generally meets on a quarterly basis. Where the nature of a communication warrants, Vital Therapies secretary may determine, in his or her judgment, to obtain the more immediate attention of the appropriate committee of the board of directors or non-management director, of independent advisors or of our management, as Vital Therapies secretary considers appropriate.

Vital Therapies secretary may decide in the exercise of his or her judgment whether a response to any stockholder or interested party communication is necessary.

This procedure for stockholder and other interested party communications with the non-management directors is administered by our nominating and governance committee. This procedure does not apply to (a) communications to non-management directors from our officers or directors who are stockholders or (b) stockholder proposals submitted pursuant to Rule 14a-8 under the Exchange Act.

Table of Contents

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS OF

VITAL THERAPIES, INC.

Consolidated Financial Statements

Report of Independent Registered Public Accounting Firm F-2
Consolidated Balance Sheets as of December 31, 2017 and 2016 F-3
Consolidated Statements of Operations for the Years Ended December 31, 2017, 2016 and 2015 F-4
Consolidated Statements of Comprehensive Loss for the Years Ended December 31, 2017, 2016 and 2015 F-5
Consolidated Statements of Stockholders Equity for the Years Ended December 31, 2017, 2016 and 2015 F-6
Consolidated Statements of Cash Flows for the Years Ended December 31, 2017, 2016 and 2015 F-7
Notes to Consolidated Financial Statements F-8

Unaudited Interim Condensed Consolidated Financial Statements

Condensed Consolidated Balance Sheets as of September 30, 2018 and December 31, 2017 F-25
Condensed Consolidated Statements of Operations for the Three and Nine Months Ended September 30, 2018 and 2017 F-26
Condensed Consolidated Statements of Comprehensive Loss for the Three and Nine Months Ended September 30, 2018 and 2017 F-27
Condensed Consolidated Statements of Cash Flows for the Nine Months Ended September 30, 2018 and 2017 F-28
Notes to Condensed Consolidated Financial Statements F-29

Table of Contents

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of

Vital Therapies, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Vital Therapies, Inc. and its subsidiaries (the Company) as of December 31, 2017 and 2016, and the related consolidated statements of operations, comprehensive loss, stockholders equity and cash flows for each of the three years in the period ended December 31, 2017, including the related notes (collectively referred to as the consolidated financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2017 and 2016, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2017 in conformity with accounting principles generally accepted in the United States of America.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company s management. Our responsibility is to express an opinion on the Company s consolidated financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (the PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits of these consolidated financial statements in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company s internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

Emphasis of Matter

As discussed in Note 1 to the consolidated financial statements, the Company will require additional financing to fund future operations. Management s plans in regard to this matter are described in Note 1.

/s/ PricewaterhouseCoopers LLP

San Diego, California

March 13, 2018

We have served as the Company s auditor since 2010.

Table of Contents

VITAL THERAPIES, INC.

Consolidated Balance Sheets

(In thousands, except share and per share amounts)

	December 31, 2017	2016
Assets		
Current assets		
Cash and cash equivalents	$ 56,901	$ 59,991
Other current assets and prepaid expenses	1,220	1,472
Total current assets	58,121	61,463
Property and equipment, net	2,155	2,505
Other assets	108	58
Total assets	$ 60,384	$ 64,026
Liabilities and Stockholders Equity		
Current liabilities		
Accounts payable	$ 1,049	$ 780
Accrued expenses	9,141	4,656
Other current liabilities	91	44
Total current liabilities	10,281	5,480
Long-term liabilities	59	100
Commitments and contingencies (note 4)		
Stockholders equity		
Preferred stock, $0.0001 par value; 20,000,000 authorized and no shares issued or outstanding at December 31, 2017 and 2016		
Common stock, $0.0001 par value; 130,000,000 shares authorized at December 31, 2017 and 2016; 42,368,864 and 32,143,475 shares issued and outstanding at December 31, 2017 and 2016, respectively	4	3
Additional paid-in capital	345,915	302,185
Accumulated other comprehensive income	78	83
Accumulated deficit	(295,953)	(243,825)
Total stockholders equity	50,044	58,446
Total liabilities and stockholders equity	$ 60,384	$ 64,026

The accompanying notes are an integral part of these financial statements.

Table of Contents

VITAL THERAPIES, INC.

Consolidated Statements of Operations

(In thousands, except share and per share amounts)

	Years ended December 31,		
	2017	**2016**	**2015**
Operating expenses:			
Research and development	$ 39,341	$ 30,046	$ 39,773
General and administrative	13,314	11,220	12,347
Total operating expenses	52,655	41,266	52,120
Loss from operations	(52,655)	(41,266)	(52,120)
Other income:			
Interest income	650	284	58
Other income (expense), net	(73)	13	39
Total other income	577	297	97
Net loss	$ (52,078)	$ (40,969)	$ (52,023)
Net loss per share, basic and diluted	$ (1.31)	$ (1.31)	$ (2.07)
Weighted-average common shares outstanding, basic and diluted	39,859,009	31,387,579	25,152,948

The accompanying notes are an integral part of these financial statements.

Table of Contents

VITAL THERAPIES, INC.

Consolidated Statements of Comprehensive Loss

(In thousands)

	Years Ended December 31,		
	2017	**2016**	**2015**
Net loss	$ (52,078)	$ (40,969)	$ (52,023)
Other comprehensive income (loss)			
Unrealized gains (losses) on cash equivalents	(6)	4	
Foreign currency translation	1	(1)	(9)
Total comprehensive loss	$ (52,083)	$ (40,966)	$ (52,032)

The accompanying notes are an integral part of these financial statements.

Table of Contents

VITAL THERAPIES, INC.

Consolidated Statements of Stockholders Equity

(In thousands, except shares)

	Common Stock		Additional Paid-In Capital	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Stockholders Equity
	Shares	Amount				
Balance at January 1, 2015	23,982,786	$ 2	$ 248,305	$ 89	$ (150,833)	$ 97,563
Net loss					(52,023)	(52,023)
Other comprehensive loss				(9)		(9)
Exercise of stock options and change in stock option early exercise repurchase liability	217,570		615			615
Stock-based compensation			4,029			4,029
Issuance of common stock, net of issuance costs	6,272,727	1	32,149			32,150
Balance at December 31, 2015	30,473,083	3	285,098	80	(202,856)	82,325
Net loss					(40,969)	(40,969)
Other comprehensive income				3		3
Exercise of stock options and change in stock options early exercise repurchase liability	8,098		54			54
Stock-based compensation			4,678			4,678
Issuance of common stock, net of issuance costs	1,662,294		12,355			12,355
Balance at December 31, 2016	32,143,475	3	302,185	83	(243,825)	58,446
Net loss					(52,078)	(52,078)
Other comprehensive income				(5)		(5)
Exercise of stock options	2,889		5			5
Stock-based compensation			5,480			5,480
Common stock issued for services	60,000		256			256
Issuance of common stock, net of issuance costs	10,162,500	1	37,939			37,940
Other			50		(50)	
Balance at December 31, 2017	42,368,864	$ 4	$ 345,915	$ 78	$ (295,953)	$ 50,044

The accompanying notes are an integral part of these financial statements.

Table of Contents

VITAL THERAPIES, INC.

Consolidated Statements of Cash Flows

(In thousands)

	Years Ended December 31,		
	2017	**2016**	**2015**
Cash flows from operating activities:			
Net loss	$ (52,078)	$ (40,969)	$ (52,023)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization	998	1,808	1,328
Stock-based compensation	5,480	4,678	4,029
Common stock issued for services	256		
Other	(1)	85	
Changes in operating assets and liabilities:			
Other assets and prepaid expenses	165	(232)	143
Accounts payable	287	(459)	281
Accrued expenses	4,490	(587)	(3,584)
Other liabilities	6	(98)	(126)
Net cash used in operating activities	(40,397)	(35,774)	(49,952)
Cash flows from investing activities:			
Purchases of property and equipment	(685)	(556)	(2,340)
Change in restricted cash		533	1,059
Proceeds from sale of equipment	7	2	
Net cash used in investing activities	(678)	(21)	(1,281)
Cash flows from financing activities:			
Proceeds from issuance of common stock, net of issuance costs	37,998	12,355	32,189
Proceeds from exercise of stock options	5	32	515
Deferred financing costs	(19)	(13)	(283)
Net cash provided by financing activities	37,984	12,374	32,421
Effect of exchange rate changes on cash and cash equivalents	1	(4)	(10)
Net change in cash and cash equivalents	(3,090)	(23,425)	(18,822)
Cash and cash equivalents, beginning of period	59,991	83,416	102,238
Cash and cash equivalents, end of period	$ 56,901	$ 59,991	$ 83,416
Supplemental disclosure of non-cash investing and financing activities:			
Purchase of property and equipment included in liabilities	$ 16	$ 41	$ 9

Stock issuance costs included in liabilities	$ 1	$	$ 39
Change in stock option early exercise repurchase liability	$	$ 23	$ 108

The accompanying notes are an integral part of these financial statements.

Table of Contents

Notes To Consolidated Financial Statements

1. Description of Business and Basis of Financial Statements

Description of Business

We are a clinical-stage biotechnology company focusing on the discovery, development and commercialization of cell-based therapies capable of transforming the management of life-threatening conditions. Our initial product candidate, the ELAD ® System, or ELAD, is a human-cell-based, bio-artificial liver which is being developed to improve rates of survival among patients with acute forms of liver failure. Since inception, we have devoted essentially all of our efforts to product development, clinical testing and pilot manufacturing and have not recognized revenues from our planned principal operations. In August 2015, we reported that our VTI-208 phase 3 clinical trial of ELAD in severe alcoholic hepatitis failed to reach its primary or secondary endpoints, although medically pertinent pre-specified subsets based on age and disease severity did show trends toward efficacy. Considering the results of the VTI-208 clinical trial and in an effort to focus our personnel and financial resources, we also discontinued our VTI-210 and VTI-212 clinical trials. We are currently completing enrollment of subjects in our new phase 3 clinical trial of ELAD, known as VTL-308, in severe alcoholic hepatitis, based on our analysis of the results of the VTI-208 clinical trial. Our business, operating results, financial condition and growth prospects are subject to significant risks and uncertainties including the failure of our clinical trial to meet its endpoint, failure to obtain regulatory approval to commercialize ELAD and failure to secure additional funding to complete the development and commercialization of ELAD.

Liquidity

We have a history of incurring losses and negative cash flows from operations and have an accumulated deficit of $296.0 million through December 31, 2017. Based on the structure and timing of the VTL-308 clinical trial, assuming limited activities related to the submission for a biologics license application, or BLA, and that we do not begin building any significant commercial infrastructure, we believe that our existing cash and cash equivalents of $56.9 million as of December 31, 2017 should be sufficient to fund our operations through the first quarter of 2019, past the expected announcement of topline data for the VTL-308 clinical trial, which we currently anticipate to be in the third quarter of 2018. We have based this estimate on assumptions that may prove to be wrong, and we could utilize our available capital resources sooner than we currently expect. The timing and amount of our actual expenditures will be based on many factors, including, but not limited to, the timing of and enrollment in our clinical trials, the timing of any possible submission of a BLA, decisions with respect to building commercial operations, and any unforeseen cash needs which may deplete current cash and cash equivalents sooner than planned. Furthermore, our operating plans may change, and we may need additional funds earlier to meet operational needs and capital requirements for product development, BLA-related activities and building for commercialization.

We plan to address our liquidity needs through pursuing additional funding which we may seek to obtain through a combination of equity or debt financings, or government or other third-party financing, marketing and distribution arrangements and other collaborations, strategic alliances and licensing arrangements. In this regard, we currently have an effective shelf registration statement on Form S-3 on file with the SEC. The shelf registration statement currently permits the offering, issuance and sale by us of up to an aggregate offering price of $112.5 million of common stock, preferred stock, warrants, debt securities or units in one or more offerings and in any combination, of which $62.2 million may be offered, issued and sold under an at-the-market sales agreement with Cantor Fitzgerald & Co. However, there is no assurance that we will be able to obtain additional funding on acceptable terms or at all. If the Company is not able to secure adequate additional funding, it will be required to make reductions in certain

spending to extend current funds. If we are unable to raise adequate funds, we may have to liquidate some or all of our assets, or we may have to delay, reduce the scope of, or eliminate some or all of our development programs or clinical trials. We may also have to delay development or commercialization of our products or license to third parties the rights to commercialize products or technology that we would otherwise seek to commercialize. Any of these factors could harm our operating results and future prospects.

Table of Contents

This discussion contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities and Exchange Act of 1934, as amended, that are based on beliefs and assumptions currently available to management, and that involve risks and uncertainties and our actual results could differ materially.

Basis of Presentation and Consolidation

The accompanying consolidated financial statements have been prepared in conformity with United States generally accepted accounting principles, or GAAP, and include the accounts of Vital Therapies, Inc. and its wholly-owned subsidiaries located in the United Kingdom and China, both of which are currently inactive. All intercompany accounts and transactions have been eliminated in consolidation. We manage our operations as a single reportable segment for the purposes of assessing performance and making operating decisions.

2. Summary of Significant Accounting Policies

Use of Estimates

The preparation of financial statements in conformity with GAAP requires us to make certain estimates and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes. Actual results could differ materially from those estimates and assumptions.

Cash and Cash Equivalents

Cash and cash equivalents consist of cash and highly-liquid investments with original maturities of three months or less when acquired. Cash equivalents are stated at cost unless they are securities, in which case they are recorded at fair value, which approximates original cost.

Fair Value of Financial Instruments

Fair value is defined as the price that would be received to sell an asset or be paid to transfer a liability in an orderly transaction between market participants on the measurement date. Accounting guidance establishes a fair value hierarchy that requires an entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value. The standard describes three levels of inputs that may be used to measure fair value:

Level 1 Quoted prices in active markets for identical assets or liabilities. Our Level 1 assets consisted of money market funds for the periods presented. We had no Level 1 liabilities for the periods presented.

Level 2 Observable inputs other than Level 1 prices, such as quoted prices for similar assets or liabilities, quoted prices in markets with insufficient volume or infrequent transactions (less active markets), or model-derived valuations in which all significant inputs are observable or can be derived principally from or corroborated with observable market data for substantially the full term of the assets or liabilities. We had no Level 2 assets or liabilities for the periods presented.

Level 3 Unobservable inputs to the valuation methodology that are significant to the measurement of the fair value of assets or liabilities. We had no Level 3 assets or liabilities for the periods presented.

Any transfers into and out of levels within the fair value hierarchy will be recognized at the end of the reporting period in which the actual event or change in circumstances that caused the transfer occurs.

The carrying value of cash and cash equivalents, other current assets and prepaid expenses, accounts payable, accrued expenses, and other current liabilities approximates fair value due to the short period of time to maturity.

Table of Contents

Property and Equipment

Property and equipment are recorded at cost and depreciated using the straight-line method over the estimated useful lives of the assets (generally three to five years). Leasehold improvements are stated at cost and depreciated on a straight-line basis over the lesser of the remaining term of the related lease or the estimated useful lives of the assets. Construction in progress is not depreciated until the underlying asset is available to be placed in service. Repairs and maintenance costs are charged to expense as incurred.

Impairment of Long-Lived Assets

Long-lived assets consist primarily of property and equipment. An impairment loss is recorded if and when events and circumstances indicate that assets might be impaired and the undiscounted cash flows estimated to be generated by those assets are less than the carrying amount of those assets. We have not recognized any impairment losses in the years ended December 31, 2017, 2016 or 2015.

Clinical Trial Accruals

As part of the process of preparing our financial statements, we are required to estimate our accrued expenses. Our clinical trial accrual process seeks to account for expenses resulting from our obligations under agreements with clinical sites, clinical research organizations, or CROs, vendors, and consultants in connection with conducting our clinical trials. We account for these expenses according to the progress of each trial as measured by subject enrollment, the timing of various aspects of the trial and if available, information from our service providers. During the course of a clinical trial, we adjust our rate of clinical expense recognition if actual results differ from our estimates. Although we do not expect our estimates to be materially different from amounts actually incurred, our understanding of the status and timing of services performed relative to the actual status and timing of services performed may vary, and could result in us reporting amounts that may later be determined to be higher or lower than our estimates for a particular period and adjustments to our research and development expenses may be necessary in future periods.

Research and Development

Research and development costs consist primarily of employee-related expenses, costs of contractors, clinical trial sites and CROs engaged in the development of ELAD, costs related to our investigation of the mechanism of action of ELAD, expenses associated with obtaining regulatory approvals, and the cost of acquiring and manufacturing clinical trial materials. All research and development costs are expensed as incurred.

Stock-Based Compensation

We measure and recognize compensation expense for all stock-based compensation for employees and directors based on the estimated fair value at the date of grant, and to consultants based on the ongoing estimated fair value. Currently, our stock-based awards consist only of stock options; however, future grants under our equity compensation plan may also consist of shares of restricted stock, restricted stock units, stock appreciation rights, performance awards and performance units. We estimate the fair value of stock options using the Black-Scholes-Merton, or BSM, option pricing model, which requires the use of estimates.

We recognize stock-based compensation cost for employees and directors for ratably vesting stock options on a straight-line basis over the requisite service period of the award. For performance-based stock options to employees and directors, we record stock-based compensation expense only when the performance-based milestone is deemed

probable of achievement. We utilize both quantitative and qualitative criteria to judge whether milestones are probable of achievement.

The fair value of options granted to consultants is estimated using the BSM option pricing model and is re-measured at each reporting date with changes in fair value prior to vesting recognized as expense in the

Table of Contents

consolidated statements of operations across the applicable vesting period. For performance-based stock options to consultants, we record stock-based compensation expense only when the performance-based milestone is achieved unless there is a performance commitment.

Effective in the first quarter of 2017, we began recognizing forfeitures as they occur (see Recently Issued and/or Adopted Accounting Standards below). In 2016 and earlier periods, stock-based compensation expense was recognized only for those awards that were ultimately expected to vest. Through 2016, we estimated forfeitures based on an analysis of our historical employee turnover. We revised the forfeiture estimate in subsequent periods if actual forfeitures differed from those estimates. Changes in estimated forfeitures, which were not material, impacted compensation cost in the period in which the change in estimate occurred.

The BSM option pricing model requires the input of highly-subjective assumptions, including the risk-free interest rate, the expected dividend yield of our common stock, the expected volatility of the price of our common stock, and the expected term of the option. These estimates involve inherent uncertainties and the application of management s judgment. If factors change and different assumptions are used, our stock-based compensation expense could be materially different in the future. These assumptions are estimated as follows:

Risk-free Interest Rate

We base the risk-free interest rate assumption on zero-coupon U.S. treasury instruments appropriate for the expected term of the stock option grants.

Expected Dividend Yield

We base the expected dividend yield assumption on the fact that we have never paid cash dividends and have no present intention to pay cash dividends. Consequently, we used an expected dividend yield of zero.

Expected Volatility

The expected stock price volatility for our common stock is estimated based on volatilities of a peer group of similar publicly-traded, biotechnology companies by taking the average historic price volatility for the peers for a period equivalent to the expected term of the stock option grants. We do not use our average historic price volatility as we have only been a publicly-traded company since April 2014.

Expected Term

The expected term represents the period of time that options are expected to be outstanding. As we do not have sufficient historical experience for determining the expected term of the stock option awards granted, we have determined the expected life assumption for employee and director stock options using the comparable average expected term utilizing those companies in the peer group as noted above. For consultant stock options, we estimate the expected term based on the period we expect each consultant to provide services to us.

Leases

We lease all of our office space and enter into various other operating lease agreements in conducting our business. At the inception of each lease, we evaluate the lease agreement to determine whether the lease is an operating or capital lease. Some of our lease agreements may contain renewal options, tenant improvement allowances, rent holidays or rent escalation clauses. When such items are included in a lease agreement, we record a deferred rent asset or liability

equal to the difference between the rent expense and future minimum lease payments due. The rent expense related to operating leases is recognized on a straight-line basis in the statements of operations over the term of each lease. In cases where our lessor grants us leasehold improvement allowances that reduce our rent expense, we capitalize the improvements as incurred and recognize deferred rent, which is amortized over the shorter of the lease term or the expected useful life of the improvements.

Table of Contents

Comprehensive Income (Loss)

Comprehensive income (loss) is defined as the change in equity during a period from transactions and other events and circumstances from non-owner sources. Accumulated other comprehensive income has been reflected as a separate component of stockholders equity in the accompanying consolidated balance sheets.

Foreign Currency Translation and Transactions

The functional currency of each of our subsidiaries in the United Kingdom and China, both of which are currently inactive, is the local currency. Assets and liabilities of the subsidiaries are translated at the rate of exchange at the balance sheet date. Expenses are translated at the average exchange rates in effect during the reporting period. Gains and losses resulting from foreign currency translation are included in accumulated other comprehensive income in the accompanying consolidated balance sheets. Gains and losses resulting from foreign currency transactions are included in the consolidated statements of operations, which to date have not been significant.

Income Taxes

We account for income taxes under the asset and liability method, which requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of events that have been included in the consolidated financial statements. Under this method, deferred tax assets and liabilities are determined on the basis of the differences between the financial statements and tax basis of assets and liabilities using enacted tax rates in effect for the year in which the differences are expected to reverse. The effect of a change in tax rates on deferred tax assets and liabilities is recognized in income in the period that includes the enactment date.

We recognize net deferred tax assets to the extent we believe these assets are more likely than not to be realized. In making such a determination, management considers all available positive and negative evidence, including future reversals of existing taxable temporary differences, projected future taxable income, tax-planning strategies, and results of recent operations. If management determines that we would be able to realize our deferred tax assets in the future in excess of their net recorded amount, management would make an adjustment to the deferred tax asset valuation allowance, which would reduce the provision for income taxes. As of December 31, 2017 and 2016, we maintained a full valuation allowance against our entire balance of deferred tax assets.

We record uncertain tax positions on the basis of a two-step process whereby (1) management determines whether it is more likely than not that the tax positions will be sustained on the basis of the technical merits of the position and (2) for those tax positions that meet the more-likely-than-not recognition threshold, management recognizes the largest amount of tax benefit that is more than 50 percent likely to be realized upon ultimate settlement with the related tax authority. We recognize interest and penalties related to unrecognized tax benefits, if any, within income tax expense, and any accrued interest and penalties are included within the related tax liability line.

Net Loss Per Share

Basic net loss per share attributable to common stockholders is calculated by dividing the net loss by the weighted-average number of common shares outstanding for the period, without consideration for common stock equivalents. Diluted net loss per share attributable to common stockholders is computed by dividing the net loss by the weighted-average number of common shares and, if dilutive, common stock equivalents outstanding for the period determined using the treasury-stock method. Common stock equivalents are comprised of options outstanding under our stock option plan and warrants for the purchase of common stock. For all periods presented, there is no difference in the number of shares used to calculate basic and diluted shares outstanding due to our net loss position.

Table of Contents

Potentially dilutive securities not included in the calculation of diluted net loss per share attributable to common stockholders because to do so would be anti-dilutive are as follows:

	As of December 31,		
	2017	2016	2015
Options to purchase common stock	6,083,482	4,841,274	3,716,520
Warrants to purchase common stock	240,620	240,620	250,646

Recently Issued and/or Adopted Accounting Pronouncements

In February 2016, the Financial Accounting Standards Board, or FASB, issued Accounting Standards Update, or ASU, No. 2016-02, Leases, or ASU 2016-02. ASU 2016-02 will require that lease arrangements longer than 12 months result in an entity recognizing an asset and liability equal to the present value of the lease payments in the statement of financial position. ASU 2016-02 is effective for annual periods beginning after December 15, 2018, and interim periods therein. This standard requires a modified retrospective transition approach for all leases existing at, or entered into after, the date of initial application, with an option to use certain transition relief. We expect to adopt ASU 2016-02 in 2019. The adoption of this guidance is expected to result in a significant increase in the total assets and liabilities reported on our consolidated balance sheets.

In March 2016, the FASB issued ASU No. 2016-09, *Compensation-Stock Compensation: Improvements to Employee Share-Based Payment Accounting,* or ASU 2016-09. ASU 2016-09 changes how companies account for certain aspects of share-based payments to employees . The amendments in this update cover such areas as the recognition of excess tax benefits and deficiencies, the classification of those excess tax benefits on the statement of cash flows, an accounting policy election for forfeitures, the amount an employer can withhold to cover employee income taxes and still qualify for equity classification and the classification of those taxes paid on the statement of cash flows. Effective in the first quarter of 2017, we adopted the provisions of ASU 2016-09 to recognize forfeitures as they occur. Upon the adoption of this standard, we recorded a cumulative-effect adjustment of $50,000 to increase additional paid-in capital and accumulated deficit reversing our estimate of forfeitures as of December 31, 2016.

In November 2016, the FASB issued ASU No. 2016-18, *Statement of Cash Flows: Restricted Cash*, or ASU 2016-18. ASU 2016-18 provides guidance on the classification of restricted cash in the statements of cash flows. This ASU will require that our statements of cash flows explain the change during the period in the total of cash, cash equivalents and amounts generally described as restricted cash or restricted cash equivalents. The amendments in this ASU are effective for interim periods beginning after December 15, 2017, with early adoption permitted. We will adopt this standard in 2018, and ASU 2016-18 will not have a significant impact on our consolidated financial statements at the time of adoption.

In May 2017, the FASB issued ASU No. 2017-09, *Compensation-Stock Compensation (Topic 718): Scope of Modification Accounting,* or ASU 2017-09. The amendments in this update provide guidance on determining which changes to the terms and conditions of share-based payment awards require an entity to apply modification accounting under Topic 718. The guidance is effective for public business entities for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2017. We expect to adopt ASU 2017-09 for fiscal year 2018. The amendments will be applied on a prospective basis to any award modified on or after the adoption date. Consistent with our past practice and ASU 2017-09, we recorded $724,000 for stock option modifications in 2017, including modifications related to the transition of our chief executive officer.

Table of Contents

3. Other Financial Information

Property and Equipment

Property and equipment, leasehold improvements, and related accumulated depreciation and amortization were as follows (in thousands):

	December 31,	
	2017	2016
Manufacturing, clinical and laboratory equipment	$ 7,500	$ 7,325
Leasehold improvements	4,727	4,450
Office furniture and equipment	234	220
Construction in progress	17	111
	12,478	12,106
Less: accumulated depreciation and amortization	(10,323)	(9,601)
Total	$ 2,155	$ 2,505

Depreciation and amortization expense was $998,000, $1.8 million and $1.3 million for the years ended December 31, 2017, 2016 and 2015, respectively.

Accrued Expenses

Accrued expenses consist of (in thousands):

	December 31,	
	2017	2016
Accrued clinical and related costs	$ 5,377	$ 2,316
Accrued compensation and related taxes	3,591	2,154
Accrued other	173	186
Total	$ 9,141	$ 4,656

4. Commitments and Contingencies

Operating Leases

We lease office, manufacturing and research and development facilities, and equipment under various non-cancellable operating lease agreements with expiration dates into 2022. In August 2016, we entered into amendments to extend certain leases for office and research and development space to January 2019. These amended leases do not include renewal options. Our facility leases generally provide for periodic rent increases and many contain escalation clauses. In May 2017, we entered into a new lease, or the Lease, extending the term of our existing manufacturing and research and development facility lease from June 2017 to June 2022. The Lease includes a renewal option and requires the

payment of our proportionate share of the facility s operating expenses. Future minimum annual obligations under all non-cancellable operating lease commitments at December 31, 2017 are as follows (in thousands):

	Total	2018	2019	2020	2021	2022	Thereafter
Operating lease obligations	$ 2,584	$ 1,073	$ 469	$ 387	$ 434	$ 221	$

We recognize rent expense for our facility operating leases on a straight-line basis. We account for the difference between the minimum lease payments and the straight-line amount as deferred rent. Total rent, property taxes and routine maintenance expense under our operating leases was $999,000, $933,000 and $862,000 during the

Table of Contents

years ended December 31, 2017, 2016 and 2015, respectively. Current and long-term deferred rent totaled $91,000 and $59,000 at December 31, 2017 and $44,000 and $99,000 at December 31, 2016, respectively.

Purchase Commitments

Some of our most significant clinical trial expenditures are to investigative sites and to CROs. These agreements are cancellable by either party at any time upon written notice and do not have any cancellation penalties, but do obligate us to reimburse the providers for any time or costs incurred through the date of termination and to close out clinical sites. In the course of normal business operations, we also enter into agreements with contract service providers and others. We can elect to discontinue the work under these contracts and purchase orders with notice. These items are not included in the table below.

The following table summarizes our purchase obligations at December 31, 2017 (in thousands):

		Payments Due by Period			
	Total	Less Than 1 Year	2-3 Years	3-5 Years	More Than 5 Years
Purchase Obligation	$ 431	$ 431	$	$	$

As of December 31, 2017, our purchase obligations include existing purchase commitments of $288,000 with a vendor for raw materials that will be used in manufacturing on an as needed basis. During the years ended December 31, 2017, 2016 and 2015, we purchased $1.1 million, $943,000 and $1.2 million, respectively, of materials from this vendor. Our purchase obligations also include a purchase commitment of $143,000 with a vendor for a component used in our clinical trials that will be manufactured and delivered on an as agreed upon schedule during 2018. During the years ended December 31, 2017, 2016 and 2015, we purchased $228,000, $139,000 and $106,000, respectively, of materials from this vendor.

Legal Proceedings

We are not currently a party to any litigation, nor are we aware of any pending or threatened litigation against us, that we believe would materially affect our business, operating results, financial condition or cash flows. However, our industry is characterized by frequent claims and litigation including securities litigation, claims regarding patent and other intellectual property rights and claims for product liability. As a result, in the future, we may be involved in various legal proceedings from time to time.

5. Fair Value

The following fair value hierarchy table presents information about each major category of our financial assets and liabilities measured at fair value on a recurring basis (in thousands):

		Payments Due by Period		
	Fair Value	Level 1	Level 2	Level 3
Assets				
Money Market Funds	$ 55,245	$ 55,245	$	$

	Fair Value Measurement at December 31, 2016			
	Fair Value	Level 1	Level 2	Level 3
Assets				
Money Market Funds	$ 57,715	$ 57,715	$	$

There were no liabilities measured at fair value on a recurring basis as of December 31, 2017 or 2016. The carrying amounts of other current assets and prepaid expenses, accounts payable, accrued expenses, and other current liabilities approximate their fair values due to their short-term nature.

Table of Contents

For our money market funds, unrealized gains and losses are reported as accumulated other comprehensive income (loss), and realized gains and losses are included in interest income on the consolidated statements of operations. There were no transfers between Level 1, Level 2 or Level 3 for our assets or liabilities during the periods presented.

6. Common Stock and Stock Warrants

Certificate of Incorporation

The material terms of our amended restated certificate of incorporation, which became effective as of the closing of our IPO, are as follows:

Authorized Shares

Our amended and restated certificate of incorporation authorizes us to issue 150,000,000 shares of stock consisting of 130,000,000 shares of common stock, par value of $0.0001 per share and 20,000,000 shares of preferred stock, par value $0.0001 per share.

Dividends

Subject to preferences that may be applicable to any then outstanding preferred stock, holders of common stock are entitled to receive ratably those dividends, if any, as may be declared from time to time by our board of directors out of legally available funds.

Liquidation Preference

In the event of our liquidation, dissolution or winding up, holders of common stock will be entitled to share ratably in the net assets legally available for distribution to stockholders after the payment of all of our debts and other liabilities and the satisfaction of any liquidation preferences that may be granted to the holders of any then outstanding shares of preferred stock.

Rights and Preferences

Holders of common stock have no preemptive, conversion or subscription rights, and there are no redemption or sinking fund provisions applicable to the common stock. The rights, preferences and privileges of the holders of common stock are subject to, and may be adversely affected by, the rights of the holders of shares of any series of preferred stock, which we may designate and issue in the future.

Voting Rights

Each holder of common stock is entitled to one vote for each share on all matters submitted to a vote of the stockholders, including the election of directors. Our amended and restated certificate of incorporation and amended and restated bylaws do not provide for cumulative voting rights. Because of this absence of cumulative voting, the holders of a majority of the shares of common stock entitled to vote in any election of directors can elect all of the directors standing for election, if they should so choose. In addition, our amended and restated certificate of incorporation also provides that our directors may be removed only for cause by the affirmative vote of the holders of at least 75% of the combined voting power of all our stockholders entitled to vote on the election of directors, voting together as a single class.

Subject to supermajority votes for some matters, matters shall be decided by the affirmative vote of our stockholders having a majority in voting power of the votes cast by the stockholders present or represented and voting on such matter, provided that the holders of our common stock are not allowed to vote on any amendment to our certificate of incorporation that relates solely to the terms of one or more series of preferred stock if the

Table of Contents

holders of such affected series are entitled, either separately or together with the holders or one or more such series, to approve such amendment. The affirmative vote of the holders of at least 75% of the votes that all of our stockholders would be entitled to cast in any annual election of directors and, in some cases, the affirmative vote of a majority of minority stockholders entitled to vote in any annual election of directors are required to amend or repeal our bylaws, amend or repeal certain provisions of our certificate of incorporation, approve certain transactions with certain affiliates, or approve the sale or liquidation of the company. The vote of a majority of minority stockholders applies when an individual or entity and its affiliates or associates together own more than 50% of the voting power of our then outstanding capital stock, excluding any such person that owned 15% or more of our outstanding voting stock immediately prior to our IPO, and such a vote would require the approval of the majority of our voting stock, excluding the voting stock held by such a majority holder.

Public Offerings of Common Stock

We currently have an effective shelf registration statement on Form S-3 on file. The shelf registration statement permits: (i) the offering, issuance and sale by us of up to a maximum aggregate offering price of $200.0 million of common stock, preferred stock, warrants, debt securities, and/or units in one or more offerings and in any combination; (ii) sales of up to 2.5 million shares of common stock by certain selling stockholders; and (iii) the offering, issuance and sale by us of up to a maximum aggregate offering price of $75.0 million of our common stock that may be issued and sold under an at-the-market sales agreement, or ATM, with Cantor Fitzgerald & Co.

In October 2015, we completed a follow-on public offering raising gross proceeds of $34.5 million under the shelf registration statement. The net proceeds to us from the following offering were $32.1 million, after deducting underwriting discounts and commissions of $2.1 million and estimated offering expenses of $280,000.

During the year ended December 31, 2016, we raised gross proceeds of $12.2 million pursuant to the ATM selling 1.5 million shares of our common stock at a weighted average price of $7.90 per share. The net proceeds to us from the ATM were $11.7 million after deducting underwriter commissions of $366,000 and estimated offering expenses of $173,000.

In March 2017, we completed an additional follow-on public offering under the shelf registration statement raising gross proceeds of $40.3 million. Under this follow-on public offering, we sold 10.1 million shares of our common stock at a price of $4.00 per share. The net proceeds to us from the March 2017 follow-on offering were $37.5 million, after deducting underwriting discounts and commissions of $2.4 million and offering expenses of approximately $362,000. During the year ended December 31, 2017, we raised gross proceeds of $600,000 pursuant to the ATM selling 100,000 shares of our common stock at a price of $6.00 per share. The net proceeds to us from the ATM were $468,000 after deducting underwriter commissions of $18,000 and estimated offering expenses of $114,000.

At December 31, 2017, $112.5 million remains available for issuance and sale under the shelf registration statement, $62.2 million of which may be offered, issued and sold under the ATM. The shelf registration statement on Form S-3 expires on May 26, 2018.

Private Placement of Common Stock

In August 2016, we entered into a securities purchase agreement, or the Securities Purchase Agreement, with a newly-appointed board member pursuant to which we agreed to issue and sell an aggregate of $700,000 of our common stock in a private placement of shares that have not been registered under the Securities Act of 1933, or the Securities Act, by reason of a specific exemption from the registration provisions of the Securities Act. On August 12, 2016, we sold 118,243 shares of common stock under the Securities Purchase Agreement at a price of $5.92 per share.

Table of Contents

Common Stock Issued for Services

On October 30, 2017, we entered into an independent consulting agreement, or the Consulting Agreement, with two consulting groups, or the Consultants, pursuant to which we issued 60,000 restricted shares of our common stock to the Consultants as partial consideration for investor relations services to be rendered. The restricted shares have not been registered based on a specific exemption from the registration requirements of the Securities Act. The terms of the Consulting Agreement state that we have the right to terminate the Consulting Agreement at any time, upon providing written notice. If we elect to terminate this agreement for any reason within 180 days following the effective date, each of the Consultants will be required to promptly surrender to us 40% of the number of restricted shares issued to it. In connection with this transaction, we valued 36,000 shares, or 60% of the shares, at the quoted market price of $207,000, or $5.75, per share, on the date of the agreement. The remaining 24,000 shares are being adjusted to fair value based on the closing price at the end of the reporting period with the expense being recorded ratably over the 180-day period. We recognized expense in connection with these consulting shares of $256,000 during the year ended December 31, 2017 in general and administrative expenses.

Warrants

We issued warrants in connection with financing activities and for consulting services in years prior to our initial public offering. As of December 31, 2017 and 2016, warrants for 240,620 shares of common stock were outstanding and exercisable at an exercise price of $92.99 and expire in September 2019.

Stock Reserved for Future Issuance

Shares reserved for future issuance at December 31, 2017 are as follows:

	Number of Shares
Common stock options outstanding	6,083,482
Common stock options available for future grant:	
2014 Equity Incentive Plan	125,000
Amended and Restated 2017 Inducement Equity Incentive Plan	1,850,000
Exercise of common stock warrants outstanding	240,620
Total common shares reserved for future issuance	8,299,102

7. Stock Compensation Plans

Equity Incentive Plans

Our 2014 Equity Incentive Plan, or the 2014 Plan, became effective in April 2014 and replaced our 2012 Stock Option Plan, or the 2012 Plan, with respect to future awards. The 2014 Plan provides for the grant of stock options, restricted stock, restricted stock units, stock appreciation rights, performance awards and performance units to employees, directors, and consultants. The 2012 Plan provided for the grant of stock options, restricted stock, restricted stock units, stock purchase rights, and performance awards to employees, directors, and consultants. Option grants under

our 2012 Plan were exercisable immediately and subject to repurchase rights, all of which have lapsed.

Shares available for grant under the 2014 Plan include any shares remaining available or becoming available in the future under the 2012 Plan due to cancellation or forfeiture. In addition, the 2014 Plan provides for annual increases in the number of shares available for issuance thereunder beginning upon its effective date in April 2014, and on each annual anniversary, equal to the lower of:

1,200,000 shares of our common stock;

Table of Contents

3% of the outstanding shares of our common stock on the second-to-the-last day prior to each anniversary date of the effectiveness date of our initial public offering; or

an amount as our broad of directors may determine

Pursuant to such provisions, the number of shares available for issuance under the 2014 Plan was increased by 1,200,000 shares effective April 16, 2017. Shares available for grant under the 2014 Plan totaled 125,000 shares as of December 31, 2017.

In September 2017, our board of directors approved the 2017 Inducement Equity Incentive Plan and amended and restated the plan in November 2017, or the Inducement Plan, which has terms and conditions substantially similar to our 2014 Plan. Under the Inducement Plan, 1,850,000 shares of our common stock were reserved to be used exclusively for grants to individuals who were not previously our employees or directors, as an inducement material to the individual s entry into employment with us within the meaning of Rule 5635(c)(4) of the Nasdaq Listing Rules. As of December 31, 2017, we had not made any grants under the Inducement Plan. See Note 10 regarding a subsequent grant under the Inducement Plan.

Option grants made under the 2014 Plan and the 2012 Plan generally vest over one or four years except for performance-based stock options. Our performance-based stock options will fully vest and become exercisable only on achievement of the performance conditions while the participant is a continuing service provider. Options generally expire ten years from the grant date or earlier in accordance with the terms of the plans and the related stock option agreement.

In 2015, our board of directors, or the Board, approved grants for performance-based stock options to certain employees and consultants under the 2014 Plan. Performance-based stock options for 647,322 shares remain outstanding at December 31, 2017. Performance-based stock options that have not been forfeited will fully vest on the third anniversary of the grant date if (i) our VTL-308 clinical trial has achieved statistical significance in its primary efficacy endpoint and (ii) the participant is a continuing service provider through the third anniversary of the grant date (as such terms are defined in the 2014 Plan). Vesting of the performance-based stock options will not be accelerated if the performance goal is achieved in less than three years. As of December 31, 2017 and 2016, we deemed the performance condition as being probable and are recording stock-based compensation expense over the requisite service period for all performance-based stock options held by employees. The performance-based stock options have exercise prices ranging from $4.57 to $7.69 per share, the closing sales price of our common stock on the grant dates, and expire ten years from the grant date (or earlier in accordance with the terms of the 2014 Plan and the related stock option agreement).

The following table summarizes stock option activity under the 2012 and 2014 Plans:

	Options	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Term (Years)	Aggregate Intrinsic Value (In Thousands)
Consolidated Balance Sheet Data:				
Outstanding as of January 1, 2017	4,841,274	$ 7.78		
Granted	1,405,054	$ 3.28		

Exercised	(2,889)	$ 1.84			
Forfeited and expired	(159,957)	$ 7.38			
Outstanding as of December 31, 2017	6,083,482	$ 6.76	7.0	$	6,709
Options vested and expected to vest as of December 31, 2017	5,980,525	$ 6.79	6.9	$	6,530
Options exercisable as of December 31, 2017	3,562,490	$ 7.94	5.7	$	2,491

The aggregate intrinsic value of options is calculated as the difference between the exercise price of the options and the fair value of our common stock for those shares that had exercise prices lower than the fair value of our

Table of Contents

common stock as of December 31, 2017. The number of options vested and expected to vest is calculated as the total number of options vested plus the number of unvested options remaining after applying our estimated forfeiture rate.

The following table summarizes information about stock options (in thousands):

	Years Ended December 31,		
	2017	2016	2015
Aggregate intrinsic value of options exercised	$ 10	$ 39	$ 1,235

We have not capitalized any stock based-compensation into the cost of inventory nor have we recognized an income tax benefit from the exercise of any stock options as we continue to record a full valuation allowance on our deferred tax assets.

Stock-based Compensation Expense

The weighted-average grant date fair value of stock options granted to employees and directors during the years ended December 31, 2017, 2016 and 2015 was $2.34, $5.70 and $5.81, respectively. The following are the ranges of underlying assumptions used to determine the fair value of stock options granted to employees and non-employees:

	Years Ended December 31,		
	2017	2016	2015
Employees and Directors			
Risk-free interest rate	1.5% - 2.0%	1.5% - 1.7%	1.7% - 1.9%
Expected dividend yield	%	%	%
Expected volatility	82% - 85%	77% - 86%	73% - 92%
Expected term of options (years)	5.9 - 6.1	5.9 - 6.0	5.8 - 6.0
Range of common stock value	$ 2.75 - $5.80	$ 5.90 - $8.97	$ 4.57 - $26.71
Non-Employees			
Risk-free interest rate	1.0% - 2.1%	0.5 - 1.9%	0.1% - 1.9%
Expected dividend yield	%	%	%
Expected volatility	66% - 84%	77% - 97%	56% - 94%
Expected term of options (years)	0.5 - 4.5	02. - 5.5	0.3 - 6.0
Range of common stock value	$ 2.90 - $5.95	$ 4.35 - $9.07	$ 4.04 - $25.01

The following tables summarize the allocation of stock-based compensation expense to employees and non-employees (in thousands):

	Years Ended December 31,		
	2017	2016	2015
Employees and Directors			
Research and development	$ 1,645	$ 1,758	$ 1,412
General and administrative	3,742	2,751	2,012
Total	$ 5,387	$ 4,509	$ 3,424

Non-Employees			
Research and development	$ 93	$ 153	$ 490
General and administrative		16	115
Total	$ 93	$ 169	$ 605

Table of Contents

As of December 31, 2017, there was $6.2 million and $449,000 of total compensation cost related to unvested employee and non-employee stock option awards, respectively, not yet recognized. The fair value of the non-employee stock options is re-measured at each reporting date and, accordingly, the expense to be recognized will change, primarily with changes in the market value of our common stock. Stock-based compensation expense for employee and non-employee stock option awards is expected to be recognized over a remaining weighted-average vesting period of 1.7 years and 2.1 years, respectively. Immediately following the transition described in note 10 to the consolidated financial statements, as of January 3, 2018, there was $12.7 million and $1.3 million of total compensation cost related to unvested employee and non-employee stock option awards, respectively, not yet recognized and expected to be recognized over 2.7 years and 2.0 years, respectively.

8. Income Taxes

Our net loss before income tax was subject to tax in the following jurisdictions for the following periods (in thousands):

	Years Ended December 31,		
	2017	2016	2015
United States	$ (52,066)	$ (40,929)	$ (51,779)
Foreign	(12)	(40)	(244)
	$ (52,078)	$ (40,969)	$ (52,023)

Our rate reconciliation consists of the following:

	Years Ended December 31,		
	2017	2016	2015
Federal statutory rate	35.0%	35.0%	35.0%
State tax (net of federal benefit)	0.0%	0.1%	5.8%
Effects of U.S. tax rate change	(47.6)%	0.0%	0.0%
Federal and state tax credits	46.8%	2.9%	3.0%
Uncertain tax positions	(5.3)%	(16.0)%	0.0%
Stock options	(1.4)%	(1.5)%	(1.0)%
Other	(0.2)%	(2.5)%	0.5%
Change in valuation allowance	(27.3)%	(18.0)%	(43.3)%
Effective tax rate	0.0%	0.0%	0.0%

Deferred income taxes result from temporary differences between the tax basis of assets and liabilities and their reported amounts in the financial statements that will result in taxable or deductible amounts in future years. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in years in which those temporary differences are expected to be recovered or settled. As tax laws and rates change, deferred tax assets and liabilities are adjusted through income tax expense.

On December 22, 2017, H.R. 1/Public Law No. 115-97 known as the Tax Cuts and Jobs Act, or the Tax Act, was signed into law. The effects of this new federal legislation are recognized upon enactment, which is the date a bill is signed into law. The Act includes numerous changes in existing tax law, including a permanent reduction in the federal corporate income tax rate from 35% to 21%. The rate reduction takes effect on January 1, 2018. As a result of the Tax Act, we have revalued our net deferred tax assets as of December 31, 2017 to reflect the rate reduction. We recorded a reduction in our net deferred tax assets of $24.8 million in the fourth quarter of 2017 related to the revaluation of our net deferred tax assets as a result of the Tax Act; however, the revaluation does not result in any additional net income tax expense as our net deferred tax assets are fully offset by the valuation allowance.

Table of Contents

Significant components of our net deferred tax assets are shown below. A valuation allowance has been established as realization of such net deferred tax assets has not met the more likely-than-not threshold requirement. If our judgment changes and it is determined that we will be able to realize these net deferred tax assets, the tax benefits relating to any reversal of the valuation allowance on the net deferred tax assets will be accounted for as a reduction to income tax expense.

	December 31,	
	2017	2016
	(in thousands)	
Deferred tax assets:		
Federal and state tax credits	$ 43,600	$ 6,056
Net operating loss carryforwards	35,903	58,722
Stock-based compensation	2,371	2,760
Foreign net operating loss carryforwards	169	256
Other, net	1,809	1,816
Total deferred tax assets	83,852	69,610
Less valuation allowance	(83,852)	(69,610)
	$	$

We have incurred net operating losses each year since inception due to our history as a development stage company with no realized revenues from our planned principal operations. These cumulative operating losses provide significant negative evidence in the determination of whether or not we will be able to realize our deferred tax assets such as our net operating losses and other favorable temporary differences. Our product candidate is in clinical trials, and there can be no assurance that it will ever be approved or that we will generate taxable income. As a result, we have maintained a full valuation allowance against the entire balance of our net deferred tax assets since the date of inception. The valuation allowance increased by $14.2 million and $7.3 million for the years ended December 31, 2017 and 2016, respectively.

In 2017, we made the decision to amend our federal tax returns to claim an orphan drug credit for the tax periods from 2013 through 2016. As a result, before consideration of any uncertain tax positions, we recorded orphan drug credit carryforwards of $34.2 million and reductions to our federal research and development credit and NOL carryforwards tax effect of $4.5 million and of $7.3 million, respectively, in 2017.

As of December 31, 2017, we had available net operating loss, or NOL, carryforwards of approximately $167.7 million and $200.8 million for federal and state income tax purposes, respectively. These state NOL carryforwards include $189.8 million in California NOLs generated in 2013 through 2017, which have been determined to be uncertain tax positions and, accordingly, are not included in our deferred tax assets. The federal and unexpired state NOLs begin to expire in 2032. In addition, as of December 31, 2017, before consideration of any uncertain tax positions, we had federal orphan drug, federal research and development, and state research and development tax credit carryforwards of $43.8 million, $0.8 million and $3.6 million, respectively. Certain federal orphan drug tax credits and federal research and development credits begin to expire in 2033 and 2032, respectively, and the state research and development tax credits do not expire. These carryforwards and tax credits are net of the Section 382 and 383 limitations discussed below.

During the year ended December 31, 2017, $361,000 of NOLs from our Chinese subsidiary expired leaving $677,000 of NOLs from our Chinese subsidiary as of December 31, 2017. There will be further expirations of this NOL in 2018 and beyond.

Sections 382 and 383 of the Internal Revenue Code, or the IRC, limit a company s ability to utilize certain net operating losses and tax credit carryforwards in the event of a cumulative change in ownership in excess of 50%, as defined. We experienced changes in ownership, as defined in Section 382, in February 2012 and in December

Table of Contents

2013. As a result, the deferred tax asset associated with our federal and state net operating loss carryforwards and federal and state tax credits have been reduced based on the Section 382 limitations. The amount of the reduction in our deferred tax assets is based on the estimated amount of the NOL carryforwards and federal and state research credits we believe cannot be used based on the estimated amount of our Section 382 annual limitation. We have reduced our deferred tax assets by $15.0 million and have estimated that approximately $58.7 million and $37.8 million, respectively, of our federal and state NOLs for tax purposes cannot be used in future years as a result of this change in ownership. Additionally, we have estimated that approximately $2.2 million and $1.6 million of our federal and state research and development tax credits, respectively, cannot be used in future years due to the Section 382 limitation. We have not experienced any additional changes as defined in Section 382 through December 31, 2017. If additional Section 382 changes occur, limitations against the utilization of net operating losses and tax credits could further impact our future cash flows, but would not impact our 2017 consolidated financial statements, due to the existence of a full valuation allowance against our deferred tax assets.

The following table summarizes the activity related to our uncertain tax positions (in thousands):

	Year Ended December 31,	
	2017	2016
Balance at beginning of year	$ 16,095	$ 1,422
Additions based on tax positions related to the current year	5,134	4,408
Changes for prior period tax positions	2,041	10,265
Balance at end of year	$ 23,270	$ 16,095

Our uncertain tax positions relate to the apportionment of losses to California and to expenses qualifying for federal and state tax credits. In 2013, California adopted a single factor, sales, for apportioning income and losses to the state. However, we have filed our California state tax returns utilizing a multiple factor apportionment based on salaries, property and sales in the state. This position is based on a prior court ruling supporting the use of the multiple factor apportionment; however, this ruling was overturned by the California Supreme Court in December 2015. The ruling was filed with the U.S. Supreme Court, and in October 2016, the U.S. Supreme Court declined to hear the case. California has no regulations or guidance nor have there been any rulings addressing how a company with no sales should apportion losses to California. As most of our operations are in California, we intend to file our tax returns using a multiple factor apportionment until such time as California provides a ruling or guidance on such an apportionment.

We do not anticipate any significant changes in the amount of uncertain tax positions as of December 31, 2017 over the next twelve months; however, should California rule or provide guidance on apportionment to companies operating in the state, we would again recognize deferred tax assets for NOL carryforwards for losses apportioned to California based on such rule or guidance. Due to the full valuation allowance that we have on our net deferred tax asset balance, there are no uncertain tax positions that would impact the effective tax rate if recognized.

We are subject to U.S. federal, California and various other states and Chinese income taxes. We are no longer subject to U.S. federal or state income tax examination by tax authorities for tax returns filed for the years ended on or before December 31, 2013 and 2012, respectively. However, to the extent allowed by law, the taxing authorities may have the right to examine the period from 2003 through 2017 where NOLs or tax credits were generated and carried forward, and make adjustments to the amount of the NOL or tax credit carryforwards. We are not currently under

examination by any federal or state jurisdictions.

Table of Contents

9. Selected Quarterly Data (unaudited)

The following financial information reflects all normal recurring adjustments, which are, in the opinion of management, necessary for a fair statement of the results of the interim periods. Summarized quarterly data for 2017 and 2016 are as follows (in thousands, except per share data):

	For the Quarters Ended				
	March 31	June 30	September 30	December 31	Total Year
2017:					
Operating expenses	$ 12,687	$ 12,549	$ 12,639	$ 14,780	$ 52,655
Net loss	$ (12,602)	$ (12,407)	$ (12,481)	$ (14,588)	$ (52,078)
Basic and diluted net loss per share (1)	$ (0.39)	$ (0.29)	$ (0.30)	$ (0.35)	$ (1.31)
2016:					
Operating expenses	$ 9,656	$ 9,546	$ 10,239	$ 11,825	$ 41,266
Net loss	$ (9,589)	$ (9,468)	$ (10,178)	$ (11,734)	$ (40,969)
Basic and diluted net loss per share (1)	$ (0.31)	$ (0.30)	$ (0.32)	$ (0.37)	$ (1.31)

(1) Net loss per share is computed independently for each of the quarters presented. Therefore, the sum of the quarterly per share calculations will not necessarily equal the annual per share calculation.

10. Chief Executive Officer Transition

On November 30, 2017, the board of directors appointed Russell J. Cox as our Chief Executive Officer with an effective start date of January 3, 2018. Mr. Cox will receive a base salary of $540,000 annually and a cash signing bonus of $330,000. Mr. Cox is eligible each year for a target bonus of 50% of his base salary as then in effect. Following his start date, Mr. Cox received a nonstatutory stock option to purchase 1,588,832 shares of our common stock under the Inducement Plan. The option has a 10-year term and an exercise price of $6.30. The option grant will vest over four years with 25% of the total shares vesting one year from his start date and 1/48th of the total shares vesting monthly for the next three years subject to his continued service.

Dr. Terence E. Winters stepped down from being our chief executive officer, and became a consultant on January 1, 2018. As a part of Dr. Winters transition and consulting agreements, Dr. Winters outstanding stock options were modified (i) to extend the period of exercisability for the full term of the option rather than three months from the termination of the consulting agreement, and (ii) to accelerate the vesting of Dr. Winters stock options, including his performance options to the extent applicable, should we terminate the consulting agreement prior to the end of its term including the renewal period. In the period ended December 31, 2017, we recorded $525,000 in severance costs and stock-based compensation expense of $674,000 associated with this stock option modification for Dr. Winters. In future periods, the unvested component of these stock options will be treated in a manner that is consistent with the other options that we have granted to consultants, as is more fully described in note 2 to the consolidated financial statements.

Table of Contents

VITAL THERAPIES, INC.

Condensed Consolidated Balance Sheets

(In thousands, except share and per share amounts)

(Unaudited)

	September 30, 2018	December 31, 2017
Assets		
Current assets:		
Cash and cash equivalents	$ 17,798	$ 56,901
Prepaid expenses and other current assets	1,263	1,220
Total current assets	19,061	58,121
Property and equipment, net	890	2,155
Other assets	37	108
Total assets	$ 19,988	$ 60,384
Liabilities and Stockholders Equity		
Current liabilities:		
Accounts payable	$ 1,131	$ 1,049
Accrued expenses	4,552	9,141
Other current liabilities	8	91
Total current liabilities	5,691	10,281
Long-term liabilities	45	59
Commitments and contingencies (note 4)		
Stockholders equity:		
Preferred stock, $0.0001 par value; 20,000,000 authorized and no shares issued or outstanding at September 30, 2018 and December 31, 2017		
Common stock, $0.0001 par value; 130,000,000 shares authorized at September 30, 2018 and December 31, 2017; 42,369,694 and 42,368,864 shares issued and outstanding at September 30, 2018 and December 31, 2017, respectively	4	4
Additional paid-in capital	349,132	345,915
Accumulated other comprehensive income	80	78
Accumulated deficit	(334,964)	(295,953)
Total stockholders equity	14,252	50,044
Total liabilities and stockholders equity	$ 19,988	$ 60,384

The accompanying notes are an integral part of these unaudited condensed consolidated financial statements.

Table of Contents

VITAL THERAPIES, INC.

Condensed Consolidated Statements of Operations

(In thousands, except share and per share amounts)

(Unaudited)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Operating expenses:				
Research and development	$ 5,989	$ 9,689	$ 24,805	$ 29,151
General and administrative	2,461	2,950	11,054	8,724
Severance Costs	2,395		2,395	
Impairment loss	1,219		1,219	
Total operating expenses	12,064	12,639	39,473	37,875
Loss from operations	(12,064)	(12,639)	(39,473)	(37,875)
Other income (expense):				
Interest income	114	187	445	453
Other income (expense), net	9	(29)	17	(68)
Total other income	123	158	462	385
Net loss	$ (11,941)	$ (12,481)	$ (39,011)	$ (37,490)
Net loss per share, basic and diluted	$ (0.28)	$ (0.30)	$ (0.92)	$ (0.96)
Weighted-average common shares outstanding, basic and diluted	42,369,437	42,207,376	42,369,093	39,054,978

The accompanying notes are an integral part of these unaudited condensed consolidated financial statements.

Table of Contents

VITAL THERAPIES, INC.

Condensed Consolidated Statements of Comprehensive Loss

(In thousands)

(Unaudited)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Net loss	$ (11,941)	$ (12,481)	$ (39,011)	$ (37,490)
Other comprehensive income (loss):				
Unrealized gain (loss) on cash equivalents		(3)	2	4
Foreign currency translation		1		1
Total comprehensive loss	$ (11,941)	$ (12,483)	$ (39,009)	$ (37,485)

The accompanying notes are an integral part of these unaudited condensed consolidated financial statements.

Table of Contents

VITAL THERAPIES, INC.

Condensed Consolidated Statements of Cash Flows

(In thousands)

(Unaudited)

	Nine Months Ended September 30,	
	2018	**2017**
Cash flows from operating activities:		
Net loss	$ (39,011)	$ (37,490)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	628	780
Impairment loss	1,219	
Stock-based compensation	3,097	3,643
Common stock issued for services	115	
Other	218	3
Changes in operating assets and liabilities:		
Prepaid expenses and other current assets	(191)	(125)
Accounts payable	94	211
Accrued expenses	(4,583)	2,512
Other liabilities	(98)	(11)
Net cash used in operating activities	(38,512)	(30,477)
Cash flows from investing activities:		
Purchases of property and equipment	(597)	(574)
Proceeds from sale of equipment	2	7
Net cash used in investing activities	(595)	(567)
Cash flows from financing activities:		
Proceeds from issuance of common stock, net of issuance costs		37,529
Deferred financing costs		(86)
Proceeds from exercise of stock options	4	1
Net cash provided by financing activities	4	37,444
Net change in cash and cash equivalents	(39,103)	6,400
Cash and cash equivalents, beginning of period	56,901	59,991
Cash and cash equivalents, end of period	$ 17,798	$ 66,391
Supplemental disclosure of noncash investing and financing activities:		

Stock issuance costs included in liabilities	$	$ 10
Purchases of property and equipment included in liabilities	$	$ 21

The accompanying notes are an integral part of these unaudited condensed consolidated financial statements.

Table of Contents

VITAL THERAPIES, INC.

Notes to Condensed Consolidated Financial Statements

(Unaudited)

1. Description of Business and Basis of Financial Statements

Description of Business

We are a biotherapeutic company that has been developing a cell-based therapy targeting the treatment of acute forms of liver failure. Our initial product candidate, the ELAD ® System, or ELAD, is a human-cell-based, bio-artificial liver, which was being developed to improve rates of survival among patients with acute forms of liver failure. Since inception, we have devoted essentially all of our efforts to product development, clinical testing and pilot manufacturing and have not recognized revenues from our planned principal operations.

In September 2018, we reported top-line data from our phase 3 clinical trial of ELAD, VTL-308, in 151 subjects with severe alcoholic hepatitis. Although there was a numerical improvement in survival in the ELAD-treated group between three months and one year following randomization, the study failed to meet the primary endpoint of a significant improvement in overall survival through at least ninety-one days. The secondary endpoint of the proportion of survivors at study day ninety-one also showed no statistically significant difference between the groups.

Considering these results, we do not believe the ELAD System can be approved in the United States or the European Union without additional clinical trials, if ever, and that such clinical trials would require substantial capital and time to complete. Consequently, we have ceased any further development of the ELAD System for the United States and Europe, substantially reduced our workforce, discontinued most of our supply and service agreements, and have shifted our strategic focus to identifying and exploring strategic alternatives including a merger, an acquisition or sale of assets or even a dissolution and liquidation of the company.

Our business, operating results, financial condition and prospects are subject to significant risks and uncertainties. As we currently have no commercial products or products in later stage development, it may be difficult to secure additional funding in light of these risks and circumstances. There can be no assurance any transaction will result from our evaluation of strategic alternatives.

Liquidity

We have a history of incurring losses and negative cash flows from operations and have an accumulated deficit of $335.0 million through September 30, 2018. In conjunction with our review of strategic alternatives and our decision to cease the further development of ELAD, we significantly reduced our projected monthly cash usage. Based on these actions, we believe that our existing cash and cash equivalents of $17.8 million would be sufficient to meet our known liabilities and commitments as of September 30, 2018; however, we expect our resource requirements to change materially to the extent we identify and enter into any strategic transactions. We have based this estimate on assumptions that may prove to be wrong, and we could utilize our available capital resources sooner than we currently expect. The timing and amount of our actual expenditures will be based on many factors, including, but not limited to, future research and development efforts if any, the strategic options that we pursue, and any unforeseen cash needs which may deplete current cash and cash equivalents sooner than planned.

We currently have an effective shelf registration statement on Form S-3 on file with the Securities and Exchange Commission, or SEC, which expires June 2021. The shelf registration statement currently permits the offering, issuance and sale by us of up to an aggregate offering price of $200.0 million of common stock, preferred stock, warrants, debt securities or units in one or more offerings and in any combination, of which $60.0 million may be offered, issued and sold under an at-the-market sales agreement with Cantor Fitzgerald & Co. However, we

Table of Contents

expect the amounts available under the shelf registration statement to be significantly limited in the future if our public float remains below $75.0 million as measured on December 31, 2018, although we could use a registration statement on Form S-1 or private placements. Funding, however, is likely to be more difficult to secure due to our past clinical trials not meeting their primary or secondary endpoints.

There is no assurance that we will be able to obtain additional funding if needed on acceptable terms or at all. These factors described above and our history of ongoing losses, raise substantial doubt over whether we will continue as a going concern for one year from the date of the issuance of our condensed consolidated financial statements for the nine months ended September 30, 2018.

Basis of Presentation and Consolidation

The accompanying unaudited interim condensed consolidated financial statements have been prepared in accordance with United States generally accepted accounting principles, or GAAP, and the rules and regulations of the SEC related to a quarterly report on Form 10-Q. Certain information and note disclosures normally included in annual financial statements prepared in accordance with GAAP have been condensed or omitted pursuant to those rules and regulations. The condensed consolidated balance sheet as of December 31, 2017 included in this report has been derived from the audited consolidated financial statements included in our Annual Report on Form 10-K. The unaudited interim condensed consolidated financial statements have been prepared on the same basis as the annual audited consolidated financial statements and, in the opinion of management, reflect all adjustments that are necessary for a fair statement of the financial position, results of operations and cash flows for the periods presented. All such adjustments are of a normal and recurring nature.

In addition, our condensed consolidated financial statements have been prepared assuming that we will continue as a going concern, which contemplates the realization of assets and the settlement of liabilities and commitments in the normal course of business. The condensed consolidated financial statements for the nine months ended September 30, 2018 do not include any adjustments to reflect the possible future effects on the recoverability and classification of assets or the amounts and classification of liabilities that could result from uncertainties related to whether we continue as a going concern.

Unaudited Interim Financial Information

The results for the nine months ended September 30, 2018 are not indicative of results to be expected for the year ending December 31, 2018 or any other future interim period or year. These unaudited condensed consolidated financial statements should be read in conjunction with the audited consolidated financial statements and notes thereto for the year ended December 31, 2017, included in our Annual Report on Form 10-K filed with the SEC on March 13, 2018.

The unaudited interim condensed consolidated financial statements include the accounts of Vital Therapies, Inc. and its wholly-owned subsidiaries located in the United Kingdom and China, both of which are currently inactive. All intercompany accounts and transactions have been eliminated in consolidation. We manage our operations as a single reportable segment for the purposes of assessing performance and making operating decisions.

2. Summary of Significant Accounting Policies

Use of Estimates

The preparation of financial statements in conformity with GAAP requires us to make certain estimates and assumptions that affect the amounts reported in the condensed consolidated financial statements and accompanying notes. Actual results could differ materially from those estimates and assumptions.

Table of Contents

Cash and Cash Equivalents

Cash and cash equivalents consist of cash and highly-liquid investments with original maturities of three months or less when acquired. Cash equivalents are stated at cost unless they are securities, in which case they are recorded at fair value, which approximates original cost.

Fair Value of Financial Instruments

Fair value is defined as the price that would be received to sell an asset or be paid to transfer a liability in an orderly transaction between market participants on the measurement date. Accounting guidance establishes a fair value hierarchy that requires an entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value. The standard describes three levels of inputs that may be used to measure fair value:

Level 1 Quoted prices in active markets for identical assets or liabilities. Our Level 1 assets consisted of money market funds for the periods presented. We had no Level 1 liabilities for the periods presented.

Level 2 Observable inputs other than Level 1 prices, such as quoted prices for similar assets or liabilities, quoted prices in markets with insufficient volume or infrequent transactions (less active markets), or model-derived valuations in which all significant inputs are observable or can be derived principally from or corroborated with observable market data for substantially the full term of the assets or liabilities. We had no Level 2 assets or liabilities for the periods presented.

Level 3 Unobservable inputs to the valuation methodology that are significant to the measurement of the fair value of assets or liabilities. We have measured the fair value of certain of our property and equipment using level 3 unobservable inputs. We had no Level 3 liabilities for the periods presented.

Any transfers into and out of levels within the fair value hierarchy will be recognized at the end of the reporting period in which the actual event or change in circumstances that caused the transfer occurs.

The carrying value of cash and cash equivalents, other current assets and prepaid expenses, accounts payable, accrued expenses and other current liabilities approximates fair value due to the short period of time to maturity.

Property and Equipment

Property and equipment are recorded at cost and depreciated using the straight-line method over the estimated useful lives of the assets (generally three to five years). Leasehold improvements are stated at cost and depreciated on a straight-line basis over the lesser of the remaining term of the related lease or the estimated useful lives of the assets. Construction in progress is not depreciated until the underlying asset is available to be placed in service. Repairs and maintenance costs are charged to expense as incurred.

Impairment of Long-Lived Assets

We evaluate long-lived assets, such as property and equipment, for impairment whenever events or changes in circumstances indicate that the carrying amount of the assets may not be recoverable. Such events or changes in circumstances include, but are not limited to, a significant decrease in the fair value of the underlying asset or asset group, a significant decrease in the benefits realized from the acquired assets, difficulty and delays in integrating the business, or a significant change in the operations of the acquired assets or use of an asset or asset group. A long-lived asset is considered impaired if its carrying amount exceeds the estimated future undiscounted cash flows the asset or

asset group is expected to generate. If a long-lived asset is considered to be impaired, the impairment to be recognized is the amount by which the carrying amount of the asset exceeds the fair value of the asset or asset group. Determining the fair value of an asset or asset group is highly judgmental in nature and involves the use of significant estimates and assumptions for market participants. We base our fair value estimates on assumptions we believe to be reasonable but that are unpredictable and inherently uncertain. Actual future results may differ from those estimates.

Table of Contents

We recognized an impairment charge of $1.2 million on our property and equipment in the condensed consolidated statements of operations for the three and nine months ended September 30, 2018. We did not recognize any impairment loss for the three and nine months ended September 30, 2017.

Clinical Trial Accruals

As part of the process of preparing our condensed consolidated financial statements, we are required to estimate our accrued expenses. Our clinical trial accrual process seeks to account for expenses resulting from our obligations under agreements with clinical sites, clinical research organizations, or CROs, vendors, and consultants in connection with conducting our clinical trials. We account for these expenses according to the progress of each trial as measured by subject enrollment, the timing of various aspects of the trial and if available, information from our service providers. During the course of a clinical trial, we adjust our rate of clinical expense recognition if actual results differ from our estimates. As our understanding of the status and timing of services performed relative to the actual status and timing of services performed may vary, reported amounts that may later be determined to be higher or lower than our estimates for a particular period and adjustments to our research and development expenses may be necessary.

Research and Development

Research and development costs have consisted primarily of employee-related expenses, costs of contractors, clinical trial sites and CROs engaged in the development of ELAD, costs related to our investigation of the mechanism of action of ELAD, expenses associated with obtaining regulatory approvals, and the cost of acquiring and manufacturing clinical trial materials. All research and development costs are expensed as incurred.

Stock-Based Compensation

We measure and recognize compensation expense for all stock-based compensation for employees and directors based on the estimated fair value at the date of grant, and to consultants based on the ongoing estimated fair value. Currently, our stock-based awards consist only of stock options; however, future grants under our equity compensation plan may also consist of shares of restricted stock, restricted stock units, stock appreciation rights, performance awards and performance units. We estimate the fair value of stock options using the Black-Scholes-Merton, or BSM, option pricing model, which requires the use of estimates.

We recognize stock-based compensation cost for employees and directors for ratably vesting stock options on a straight-line basis over the requisite service period of the award. For performance-based stock options to employees and directors, we record stock-based compensation expense only when the performance-based milestone is deemed probable of achievement. We utilize both quantitative and qualitative criteria to judge whether milestones are probable of achievement. If performance-based milestones are later determined not to be probable of achievement, then all previously recorded stock-based compensation expense associated with such options is reversed in the period that we make this determination.

The fair value of options granted to consultants is estimated using the BSM option pricing model and is re-measured at each reporting date with changes in fair value prior to vesting recognized as expense in the condensed consolidated statements of operations across the applicable vesting period. For performance-based stock options held by consultants, we record stock-based compensation expense only when the performance-based milestone is achieved unless there is a performance commitment.

The BSM option pricing model requires the input of highly-subjective assumptions, including the risk-free interest rate, the expected dividend yield of our common stock, the expected volatility of the price of our common stock, and

the expected term of the option. These estimates involve inherent uncertainties and the

Table of Contents

application of management s judgment. If factors change and different assumptions are used, our stock-based compensation expense could be materially different in the future. These assumptions are estimated as follows:

Risk-free Interest Rate

We base the risk-free interest rate assumption on zero-coupon U.S. treasury instruments appropriate for the expected term of the stock option grants.

Expected Dividend Yield

We base the expected dividend yield assumption on the fact that we have never paid cash dividends and have no present intention to pay cash dividends. Consequently, we used an expected dividend yield of zero.

Expected Volatility

The expected stock price volatility for our common stock is estimated based on volatilities of a peer group of similar publicly-traded, biotechnology companies by taking the average historic price volatility for the peers for a period equivalent to the expected term of the stock option grants. We do not use our average historical price volatility as we have only been a publicly-traded company since April 2014.

Expected Term

The expected term represents the period of time that options are expected to be outstanding. As we do not have sufficient historical experience for determining the expected term of the stock option awards granted, we have determined the expected life assumption for employee and director stock options using the comparable average expected term utilizing those companies in the peer group as noted above. For consultant stock options, we estimate the expected term based on the period we expect each consultant to provide services to us.

Leases

We lease all of our research, manufacturing and office space and enter into various other operating lease agreements in conducting our business. At the inception of each lease, we evaluate the lease agreement to determine whether the lease is an operating or capital lease. Some of our lease agreements may contain renewal options, tenant improvement allowances, rent holidays or rent escalation clauses. When such items are included in a lease agreement, we record a deferred rent asset or liability equal to the difference between the rent expense and future minimum lease payments due. The rent expense related to operating leases is recognized on a straight-line basis in the statements of operations over the term of each lease. In cases where our lessor grants us leasehold improvement allowances that reduce our rent expense, we capitalize the improvements as incurred and recognize deferred rent, which is amortized over the shorter of the lease term or the expected useful life of the improvements.

Comprehensive Income (Loss)

Comprehensive income (loss) is defined as the change in equity during a period from transactions and other events and circumstances from non-owner sources. Accumulated other comprehensive income has been reflected as a separate component of stockholders equity in the accompanying condensed consolidated balance sheets.

Foreign Currency Translation and Transactions

The functional currency of each of our subsidiaries in the United Kingdom and China, both of which are currently inactive, is the local currency. Assets and liabilities of the subsidiaries are translated at the rate of exchange at the balance sheet date. Expenses are translated at the average exchange rates in effect during the

Table of Contents

reporting period. Gains and losses resulting from foreign currency translation are included in accumulated other comprehensive income in the accompanying condensed consolidated balance sheets. Gains and losses resulting from foreign currency transactions are included in the condensed consolidated statements of operations, which to date have not been significant.

Income Taxes

We account for income taxes under the asset and liability method, which requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of events that have been included in the condensed consolidated financial statements. Under this method, deferred tax assets and liabilities are determined on the basis of the differences between the financial statements and tax basis of assets and liabilities using enacted tax rates in effect for the year in which the differences are expected to reverse. The effect of a change in tax rates on deferred tax assets and liabilities is recognized in income in the period that includes the enactment date.

We recognize net deferred tax assets to the extent we believe these assets are more likely than not to be realized. In making such a determination, management considers all available positive and negative evidence, including future reversals of existing taxable temporary differences, projected future taxable income, tax-planning strategies, and results of recent operations. If management determines that we would be able to realize our deferred tax assets in the future in excess of their net recorded amount, management would make an adjustment to the deferred tax asset valuation allowance, which would reduce the provision for income taxes. As of September 30, 2018 and December 31, 2017, we maintained a full valuation allowance against our entire balance of deferred tax assets.

We record uncertain tax positions on the basis of a two-step process whereby (1) management determines whether it is more likely than not that the tax positions will be sustained on the basis of the technical merits of the position and (2) for those tax positions that meet the more-likely-than-not recognition threshold, management recognizes the largest amount of tax benefit that is more than 50 percent likely to be realized upon ultimate settlement with the related tax authority. We recognize interest and penalties related to unrecognized tax benefits, if any, within income tax expense, and any accrued interest and penalties are included within the related tax liability line.

Net Loss Per Share

Basic net loss per share attributable to common stockholders is calculated by dividing the net loss by the weighted-average number of common shares outstanding for the period, without consideration for common stock equivalents. Diluted net loss per share attributable to common stockholders is computed by dividing the net loss by the weighted-average number of common shares and, if dilutive, common stock equivalents outstanding for the period determined using the treasury-stock method. Common stock equivalents are comprised of options outstanding under our stock option plan and warrants for the purchase of common stock. For all periods presented, there is no difference in the number of shares used to calculate basic and diluted shares outstanding due to our net loss position.

Potentially dilutive securities not included in the calculation of diluted net loss per share attributable to common stockholders because to do so would be anti-dilutive are as follows:

	As of September 30,	
	2018	**2017**
Options to purchase common stock	7,454,266	6,071,707
Warrants to purchase common stock	240,620	240,620

Table of Contents

Recently Issued and/or Adopted Accounting Standards

In February 2016, the Financial Accounting Standards Board, or FASB, issued Accounting Standards Update, or ASU, No. 2016-02, Leases, or ASU 2016-02. ASU 2016-02 will require that lease arrangements longer than 12 months result in an entity recognizing an asset and liability equal to the present value of the lease payments in the statement of financial position. ASU 2016-02 is effective for annual periods beginning after December 15, 2018, and interim periods therein. This standard requires a modified retrospective transition approach for all leases existing at, or entered into after, the date of initial application, with an option to use certain transition relief. We expect to adopt ASU 2016-02 in 2019. The adoption of this guidance is expected to result in a significant increase in the total assets and liabilities reported on our consolidated balance sheets.

In November 2016, the FASB issued ASU No. 2016-18, *Statement of Cash Flows: Restricted Cash*, or ASU 2016-18. ASU 2016-18 provides guidance on the classification of restricted cash in the statements of cash flows. This ASU requires that our statements of cash flows explain the change during the period in the total of cash, cash equivalents and amounts generally described as restricted cash or restricted cash equivalents. We adopted this standard in the first quarter of 2018, and the adoption did not have any impact on our condensed consolidated financial statements.

In May 2017, the FASB issued ASU No. 2017-09, *Compensation-Stock Compensation (Topic 718): Scope of Modification Accounting,* or ASU 2017-09. The amendments in this update provide guidance on determining which changes to the terms and conditions of share-based payment awards require an entity to apply modification accounting under Topic 718. We adopted this standard in the first quarter of 2018, and the adoption did not have a significant impact on our condensed consolidated financial statements.

In June 2018, the FASB issued ASU No. 2018-07, *Improvements to Non-employee Share-Based Payment Accounting,* or ASU 2018-07. ASU 2018-07, which simplifies the accounting for non-employee share-based payment transactions, specifies that Topic 718 applies to all share-based payment transactions in which a grantor acquires goods or services to be used or consumed in a grantor s own operations by issuing share-based payment awards. ASU 2018-07 is effective for public business entities for fiscal years beginning after December 15, 2018, and early adoption is permitted. We currently expect to adopt ASU 2018-07 in the first quarter of 2019. We do not expect the adoption of this standard to have a material impact on our condensed consolidated financial statements.

In August 2018, the FASB issued ASU No. 2018-13, *Fair Value Measurement Disclosure Framework,* or ASU 2018-13. ASU 2018-13, modifies the disclosure requirements for fair value measurements. The amendments relate to disclosures regarding unrealized gains and losses, the range and weighted average of significant unobservable inputs used to develop Level 3 fair value measurements, and the narrative description of measurement uncertainty and are to be applied prospectively for only the most recent interim or annual period presented in the initial fiscal year of adoption. All other amendments should be applied retrospectively to all periods presented upon their effective date. The amendments are effective for fiscal years beginning after December 15, 2019, and interim periods within those fiscal years, and early adoption is permitted.

Table of Contents

3. Other Financial Information

Property and Equipment

Property and equipment, leasehold improvements, and related accumulated depreciation and amortization were as follows (in thousands):

	September 30, 2018	December 31, 2017
Manufacturing, clinical and laboratory equipment	$ 6,805	$ 7,500
Leasehold improvements	4,764	4,727
Office furniture and equipment	268	234
Construction in progress		17
	11,837	12,478
Less: accumulated depreciation and amortization	(10,947)	(10,323)
Total	$ 890	$ 2,155

Depreciation and amortization expense was $204,000 and $216,000 for the three months ended September 30, 2018 and 2017, respectively, and $628,000 and $780,000 for the nine months ended September 30, 2018 and 2017, respectively.

In September 2018, we ceased substantially all of our development efforts related to ELAD. This resulted in a substantial change in the expected use of our long-lived assets and a significant decrease in the benefits expected to be realized from these assets. Accordingly, we recognized an impairment charge of 1.2 million on our property and equipment in the condensed consolidated statements of operations for the three and nine months ended September 30, 2018 reflecting the difference in the carrying value of such property and equipment and its estimated fair value. The impairment charge is reflected as a reduction in the cost of the related assets.

Accrued Expenses

Accrued expenses consist of (in thousands):

	September 30, 2018	December 31, 2017
Accrued clinical and related costs	$ 3,289	$ 5,377
Accrued compensation and related taxes	1,081	3,591
Accrued other	182	173
Total	$ 4,552	$ 9,141

As a result of the completion of our VTL-308 clinical trial, we gained access to subject-specific information for estimating our clinical accruals as of September 30, 2018. This enabled us to further analyze the clinical trial accrual against the actual services performed and to adjust our clinical trial accrual based on such information. As a result of

this analysis, we reduced our clinical trial accrual as of September 30, 2018 and reduced research and development expense for the three and nine months ended September 30, 2018 by $356,000.

4. Commitments and Contingencies

Operating Leases

We lease office, manufacturing and research and development facilities and equipment under various non-cancellable operating lease agreements. Leases for our office and research and development facilities expire in January 31, 2019 and the lease on our manufacturing facility expires in June 2022. Our manufacturing facility lease provides for periodic rent increases and an option to extend the term for five years.

Table of Contents

We recognize rent expense for our facility operating leases on a straight-line basis. We account for the difference between the minimum lease payments and the straight-line amount as deferred rent. Total rent, property taxes and routine maintenance expense under our operating leases was $270,000 and $253,000 for the three months ended September 30, 2018 and 2017, respectively, and $844,000 and $736,000 for the nine months ended September 30, 2018 and 2017, respectively. Current and long-term deferred rent totaled $8,000 and $45,000 at September 30, 2018, and $91,000 and $59,000 at December 31, 2017, respectively. We have not estimated the contract termination costs associated with any of our leases as we have not yet reached the cease-use date.

Legal Proceedings

We are not currently a party to any litigation, nor are we aware of any pending or threatened litigation against us, that we believe would materially affect our business, operating results, financial condition or cash flows. However, our industry is characterized by frequent claims and litigation including securities litigation, claims regarding patent and other intellectual property rights and claims for product liability. As a result, in the future, we may be involved in various legal proceedings from time to time.

5. Fair Value

The following fair value hierarchy tables present information about each major category of our financial assets measured at fair value on a recurring basis (in thousands):

	Fair Value Measurement at September 30, 2018			
	Fair Value	Level 1	Level 2	Level 3
Assets				
Money market funds	$ 14,940	$ 14,940	$	$

	Fair Value Measurement at December 31, 2017			
	Fair Value	Level 1	Level 2	Level 3
Assets				
Money market funds	$ 55,245	$ 55,245	$	$

There were no liabilities measured at fair value on a recurring basis as of September 30, 2018 or as of December 31, 2017. The carrying amounts of other current assets and prepaid expenses, accounts payable, accrued expenses, and other current liabilities approximate their fair values due to their short-term nature.

For our money market funds, unrealized gains and losses are reported as accumulated other comprehensive income (loss), and realized gains and losses are included in interest income on the condensed consolidated statements of operations. We estimated the fair value of certain property and equipment based on third-party market value appraisals, and classified the fair value of such property and equipment as a Level 3 measurement due to the significance of the unobservable inputs. There were no transfers between Level 1, Level 2 or Level 3 for our assets during the periods presented.

6. Common Stock and Stock Warrants

Shelf Registration Statement

In May 2018 we filed a shelf registration statement on Form S-3, or the 2018 Shelf Registration Statement, which became effective in June 2018. The 2018 Shelf Registration Statement permits: (i) the offering, issuance and sale by us of up to a maximum aggregate offering price of $200.0 million of common stock, preferred stock, warrants, debt securities, and/or units in one or more offerings and in any combination; (ii) sales of up to 2.5 million shares of common stock by certain selling stockholders; and (iii) the offering, issuance and sale by us of up to a

Table of Contents

maximum aggregate offering price of $60.0 million of our common stock that may be issued and sold under an at-the-market sales agreement, or ATM, with Cantor Fitzgerald & Co. No shares have been sold under the 2018 Shelf Registration Statement. We expect the amounts available under the shelf registration statement to be significantly limited in the future if our public float remains below $75.0 million as measured on December 31, 2018.

Under our prior registration statement filed on Form S-3 in May 2015, or the 2015 Shelf Registration Statement, we completed a follow-on public offering raising gross proceeds of $40.3 million in March 2017 with net proceeds to us of $37.5 million. We did not sell any shares under the 2015 Shelf Registration Statement during the nine months ended September 30, 2018. The 2015 Shelf Registration Statement was replaced by the 2018 Shelf Registration Statement in June 2018.

Common Stock Issued for Services

In October 2017, we entered into an independent consulting agreement, or the Consulting Agreement, with two consulting groups, or the Consultants, pursuant to which we issued 60,000 restricted shares of our common stock to the Consultants as partial consideration for investor relations services to be rendered. The restricted shares have not been registered based on a specific exemption from the registration requirements of the Securities Act. We had the right to terminate this agreement for any reason within 180 days following the effective date, whereby each of the Consultants would have been required to promptly surrender to us 40% of the number of restricted shares issued to it. In connection with this transaction, we valued 36,000 shares, or 60% of the shares, at the quoted market price of $207,000, or $5.75, per share, on the date of the agreement. The remaining 24,000 shares were adjusted to fair value based on the closing price at the end of each reporting period with the expense being recorded ratably over the 180-day period. We recognized expense in connection with these consulting shares of $115,000 during the nine months ended September 30, 2018 in general and administrative expenses.

Stock Warrants

We issued warrants in connection with financing activities and for consulting services prior to our initial public offering. As of September 30, 2018, warrants for 240,620 shares of common stock were outstanding and exercisable at an exercise price of $92.99. The warrants expire in September 2019.

Stock Reserved for Future Issuance

Shares reserved for future issuance at September 30, 2018 are as follows:

	Number of Shares
Common stock reserved for issuance for outstanding options	7,454,266
Common stock options available for future grant:	
2014 Equity Incentive Plan	1,548,678
2017 Inducement Equity Incentive Plan	254,708
Common stock reserved for issuance for outstanding warrants	240,620
Total common shares reserved for future issuance	9,498,272

7. Stock Compensation Plans

Equity Incentive Plans

Our 2014 Equity Incentive Plan, or the 2014 Plan, became effective in April 2014 and replaced our 2012 Stock Option Plan, or the 2012 Plan, with respect to future awards. The 2014 Plan provides for the grant of stock options, restricted stock, restricted stock units, stock appreciation rights, performance awards and performance

units to employees, directors and consultants. The 2012 Plan provided for the grant of stock options, restricted stock, restricted stock units, stock purchase rights and performance awards to employees, directors and consultants.

Shares available for grant under the 2014 Plan include any shares remaining available or becoming available in the future under the 2012 Plan due to cancellation or forfeiture. In addition, the 2014 Plan provides for annual increases in the number of shares available for issuance thereunder beginning upon its effective date in April 2014, and on each annual anniversary, equal to the lower of:

- 1,200,000 shares of our common stock;
- 3% of the outstanding shares of our common stock on the second-to-the-last day prior to each anniversary date of the effectiveness date of our initial public offering; or
- an amount as our board of directors, or the Board, may determine.

Pursuant to such provisions, the number of shares available for issuance under the 2014 Plan was increased by 1,200,000 shares effective April 16, 2018. Shares available for grant under the 2014 Plan totaled 1,548,678 shares as of September 30, 2018.

In September 2017, our board of directors approved the 2017 Inducement Equity Incentive Plan, or the Inducement Plan, and amended and restated the Inducement Plan in November 2017, or the Inducement Plan, which has terms and conditions substantially similar to our 2014 Plan. Under the Inducement Plan, 1,850,000 shares of our common stock were reserved to be used exclusively for non-qualified grants to individuals who were not previously our employees or directors as an inducement material to the individual s entry into employment with us within the meaning of Rule 5635(c)(4) of the Nasdaq Listing Rules. During the nine months ended September 30, 2018, we granted options to purchase 1,699,636 shares of our common stock under the Inducement Plan and 104,344 shares were forfeited or cancelled, leaving 254,708 shares available for grant under the Inducement Plan.

Option grants made under the 2014 Plan and the 2012 Plan generally vest over one year or ratably over four years except for performance-based stock options. Our performance-based stock options were set to become fully vested and exercisable only on achievement of the performance conditions while the participant was a continuing service provider. Options currently outstanding under the Inducement Plan become 25% vested on the one year anniversary of the grant date and then vest ratably over an additional three years or ratably over four years. Options generally expire ten years from the grant date or earlier in accordance with the terms of the plans and the related stock option agreement.

In 2015, the Board approved grants for performance-based stock options to certain employees and consultants under the 2014 Plan. Performance-based stock options that were not forfeited would have fully vested on the third anniversary of the grant date if (i) our VTL-308 clinical trial had achieved statistical significance in its primary efficacy endpoint and (ii) the participant was a continuing service provider through the third anniversary of the grant date (as such terms are defined in the 2014 Plan). Prior to the announcement of the VTL-308 clinical trial results, we deemed the performance conditions as being probable and recorded stock-based compensation expense over the requisite service period for all performance-based stock options held by employees of $119,000 and $357,000 for the three and nine months ended September 30, 2018, respectively. In September 2018, we announced that the VTL-308 clinical trial failed to achieve its primary efficacy endpoint. Accordingly, the performance conditions of the

performance-based stock options were not met. In connection with this determination, we recorded a reversal of stock-based compensation expense of $1.7 million, including $873,000 to research and development expense and $862,000 to general and administrative expense in the condensed consolidated statements of operations for the three and nine months ended September 30, 2018.

Table of Contents

The following table summarizes stock option activity under the 2012 Plan, the 2014 Plan and the Inducement Plan:

	Options	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Term (Years)	Aggregate Intrinsic Value
Outstanding as of January 1, 2018	6,083,482	$ 6.76		
Granted	2,815,900	$ 6.05		
Exercised	(830)	$ 5.35		
Forfeited or expired	(1,444,286)	$ 5.33		
Outstanding as of September 30, 2018	7,454,266	$ 6.77	6.5	$
Options vested and expected to vest as of September 30, 2018	6,744,346	$ 6.87	6.2	$
Options exercisable as of September 30, 2018	4,473,207	$ 7.34	4.7	$

Stock-Based Compensation Expense

The weighted-average grant date fair value of stock options granted during the nine months ended September 30, 2018 and 2017 was $4.18 and $2.29, respectively. The following are the ranges of underlying assumptions used in the BSM option pricing model to determine the fair value of stock options granted to employees and to non-employees under all stock plans:

	Nine Months Ended September 30,	
	2018	2017
Employees:		
Risk-free interest rate	2.0% - 2.5%	1.5% - 1.9%
Expected dividend yield	0%	0%
Expected volatility	79.7% - 82.0%	82.6% - 85.4%
Expected term of options (years)	5.9 - 6.2	5.9 - 6.1
Fair value of common stock	$0.45 - $8.00	$2.75 - $5.05
Non-employees:		
Risk-free interest rate	1.0% - 3.0%	1.0% - 1.9%
Expected dividend yield	0%	0%
Expected volatility	70.7% - 82.3%	71.6% - 83.9%
Expected term of options (years)	0.1 - 9.3	0.8 - 4.5
Fair value of common stock	$0.28 - $6.85	$2.90 - $5.05

Net stock-based compensation expense for all stock awards recognized in our condensed consolidated statements of operations is as follows (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Employees:				
Research and development	$ (474)	$ 414	$ 299	$ 1,244
General and administrative	233	777	2,592	2,343
Total	$ (241)	$ 1,191	$ 2,891	$ 3,587
Non-employees:				
Research and development	$ (11)	$ 33	$ 80	$ 56
General and administrative	(11)		126	
Total	$ (22)	$ 33	$ 206	$ 56

Table of Contents

As of September 30, 2018, there was $9.2 million and $11,000 of total compensation cost related to unvested employee and non-employee stock option awards, respectively, not yet recognized. The fair value of the non-employee stock options is re-measured at each reporting date and, accordingly, the expense to be recognized will change, primarily with changes in the market value of our common stock. Stock-based compensation expense for employee and non-employee stock option awards is expected to be recognized over a remaining weighted-average vesting period of 2.8 years and 2.6 years, respectively.

8. Severance Costs

In September 2018, we announced a staff reduction plan in order to reduce operating expenses and to conserve cash resources. The plan reduced our workforce by approximately 85%. As a result, we estimate we will incur approximately $2.4 million in costs for the affected employees, including severance payments, limited reimbursement of medical insurance premiums and outplacement services. The staff reduction plan was completed by the end of September 2018.

During the three months ended September 30, 2018, we paid $1.7 million in severance benefits to separating employees related to the staff reduction plan. At September 30, 2018, unpaid severance costs of $704,000 are included in current liabilities in the condensed consolidated balance sheet and are expected to be paid by the end of the first quarter of 2019.

9. Subsequent Event

On October 10, 2018, Jean-Jacques Bienaimé, Douglas E. Godshall, Errol R. Halperin, J. Michael Millis, M.D. and Muneer A. Satter tendered their resignations from the Board, and as a member of each committee on which such director served in order to reduce expenses. The Board has accepted each such resignation. The decision of each of Messrs. Bienaimé, Godshall, Halperin, Satter and Dr. Millis did not result from any disagreement with the company on any matter related to our operations, policies or practices. Following the resignation of Messrs. Bienaimé, Godshall, Halperin, Satter and Dr. Millis, the size of the Board was reduced its size to four members in accordance with the provisions of our Certificate of Incorporation and bylaws.

On October 11, 2018, we entered into an investment banking agreement, or the Engagement Agreement, with Ladenburg Thalmann & Co. Inc., or Ladenburg, pursuant to which Ladenburg will act as our strategic financial advisor to assist in the review of our business and assets and exploration of strategic opportunities for enhancing stockholder value, including the potential sale or merger of the company. Under the Engagement Agreement, as compensation for the services provided by Landenburg, the Company shall pay, or cause to be paid, to Ladenburg, the following nonrefundable fees: (i) if the Company consummates a Transaction, it shall pay to Ladenburg a transaction fee of $1,000,000, or the Transaction Fee, at the closing of the Transaction, (ii) a retainer fee of $75,000, which is creditable against the Transaction Fee, and (iii) an opinion fee of $250,000. While we have commenced evaluating our available options, no conclusion as to any specific option or transaction has been reached, nor has any specific timetable been fixed for this effort, and there can be no assurance that any strategic or financial option or transaction will be presented, implemented or consummated.

On October 25, 2018, we received a letter from the staff of Nasdaq providing notification that, for the previous 30 consecutive business days, the closing bid price for our common stock was below the minimum $1.00 per share requirement, or the Bid Price Requirement, for continued listing on the Nasdaq Global Select Market. The notification had no immediate effect on the listing of our common stock. In accordance with Nasdaq listing rules, we are afforded

180 calendar days, or until April 23, 2019, to regain compliance with the Bid Price Requirement. If our common stock is delisted, this would, among other things, substantially impair our ability to raise additional funds to sustain our operations and our ability to successfully enter into strategic transactions, and could result in the loss of investor interest.

Table of Contents

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS OF

IMMUNIC AG

2017 Consolidated Financial Statements	
Independent Auditor s Report	F-43
Consolidated Statement of Profit or Loss and Comprehensive Income for the Year Ended 31 December 2017	F-44
Consolidated Statement of Financial Position as of 31 December 2017	F-45
Consolidated Statement of Changes in Equity for the Year Ended 31 December 2017	F-46
Consolidated Statement of Cash Flows for the Year Ended 31 December 2017	F-47
Notes to Consolidated Financial Statements as of 31 December 2017	F-48
2016 Consolidated Financial Statements	
Independent Auditor s Report	F-75
Consolidated Statement of Profit or Loss and Comprehensive Income for the Year Ended 31 December 2016	F-76
Consolidated Statement of Financial Position as of 31 December 2016	F-77
Consolidated Statement of Changes in Equity for the Year Ended 31 December 2016	F-78
Consolidated Statement of Cash Flows for the Year Ended 31 December 2016	F-79
Notes to Consolidated Financial Statements as of 31 December 2016	F-80
Interim Consolidated Financial Statements as of 30 September 2018	
Consolidated Statement of Profit or Loss and Comprehensive Income for the Period Ended 30 September 2018	F-105
Consolidated Statement of Financial Position as of 30 September 2018	F-106
Consolidated Statement of Changes in Equity for the Period Ended 30 September 2019	F-107
Consolidated Statements of Cash Flows for the Period Ended 30 September 2019	F-108
Notes to Interim Consolidated Financial Statements as of 30 September 2018	F-109

Table of Contents

INDEPENDENT AUDITOR S REPORT

The Board of Managers

Immunic AG:

Report on the Financial Statements

We have audited the accompanying financial statements of Immunic AG (the Company), which comprise the balance sheet as of December 31, 2017, and the related statements of income, changes in equity, and cash flows for the year then ended, and the related notes to the financial statements.

Management s Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with the International Financial Reporting Standards as issued by the International Accounting Standards Board; this includes the design, implementation, and maintenance of internal controls relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor s Responsibility

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America and in accordance with International Standards on Auditing. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor s judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal controls relevant to the entity s preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity s internal controls. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Immunic AG as of December 31, 2017, and the results of its operations and its cash flows for the year then ended, in accordance with the International Financial Reporting Standards as issued by the International Accounting Standards Board.

/s/ Baker Tilly GmbH & Co. KG Wirtschaftsprüfungsgesellschaft (Düsseldorf)

Munich, Germany

January 30, 2019

Table of Contents

Immunic AG Group

Consolidated financial statements as of 31 December 2017

Consolidated statement of profit or loss and comprehensive income

For the year ended 31 December 2017

EUR	Note	2017	2016
Other operating income	4.1	42.946,68	5.500,00
Research and development expenses	4.2	-6.979.968,87	-721.932,07
Adminstrative expenses	4.3	-959.687,44	-455.851,45
Other operating expenses	4.4	-183.348,64	-29.612,78
Interest and similar expenses	4.5	-3.910,74	0,00
Income before income tax expense		**-8.083.969,01**	**-1.201.896,30**
Income tax expense	4.6	0,00	0,00
Income after income tax expense		**-8.083.969,01**	**-1.201.896,30**
Thereof attributable to owners of Immunic AG		-8.083.969,01	-1.201.896,30
Earnings per share in EUR (basic)	4.7	-26,81	-10,68
Earnings per share in EUR (diluted)	4.7	-26,81	-10,68

Table of Contents

Immunic AG Group

Consolidated financial statements as of 31 December 2017

Consolidated statement of financial position

As of 31 December 2017

EUR	Note	31 December 2017	31 December 2016
ASSETS			
Intangible assets	5.1	2.734.788,00	2.933.333,00
Property, plant and equipment	5.2	19.692,00	5.879,00
Non-current assets		**2.754.480,00**	**2.939.212,00**
Trade and other receivables	5.3	47.600,00	0,00
Other non-financial assets	5.4	362.821,67	557.069,48
Cash and cash equivalents	5.6	3.759.814,91	5.369.309,87
Current assets		**4.170.236,58**	**5.926.379,35**
Total assets		**6.924.716,58**	**8.865.591,35**
EQUITY AND LIABILITIES			
Share capital	5.7	362.997,00	234.375,00
Capital reserve	5.7	15.465.497,86	8.589.550,00
Retained earnings		-9.285.865,31	-1.201.896,30
Total equity		**6.542.629,55**	**7.622.028,70**
Provisions	5.8	51.250,00	16.500,00
Trade payables	5.9	211.314,12	1.206.618,97
Other non-financial liabilities	5.10	119.522,91	20.443,68
Current liabilities		**382.087,03**	**1.243.562,65**
Total equity and liabilities		**6.924.716,58**	**8.865.591,35**

Table of Contents

Immunic AG Group

Consolidated financial statements as of 31 December 2017

Consolidated statement of changes in equity

For the year ended 31 December 2017

		Attributable to shareholders of Immunic AG			
EUR	Number of shares	Share capital	Capital reserve	Retained earnings	Total equity
Balance at 25 January 2016	**50.000**	**50.000,00**	**0,00**	**0,00**	**50.000,00**
Capital increase, cash-based	184.375	184.375,00	8.589.550,00	0,00	8.773.925,00
Income after income tax expense	0	0,00	0,00	-1.201.896,30	-1.201.896,30
Balance at 31 December 2016	**234.375**	**234.375,00**	**8.589.550,00**	**-1.201.896,30**	**7.622.028,70**
Capital increase, cash-based	128.622	128.622,00	6.875.947,86	0,00	7.004.569,86
Income after income tax expense	0	0,00	0,00	-8.083.969,01	-8.083.969,01
Balance at 31 December 2017	**362.997**	**362.997,00**	**15.465.497,86**	**-9.285.865.31**	**6.542.629,55**

Table of Contents

Immunic AG Group

Consolidated financial statements as of 31 December 2017

Consolidated statement of cash flows

For the year ended 31 December 2017

EUR	Note	2017	2016
Cash flows from operating activities			
Income after income tax expense		**-8.083.969,01**	**-1.201.896,30**
Changes in			
Trade receivables	5.3	-47.600,00	0,00
Other non-financial assets	5.4	194.247,81	-557.069,48
Trade payables	5.9	4.695,15	206.618,97
Other non-financial liabilities	5.10	99.079,23	20.443,68
Provisions	5.8	34.750,00	16.500,00
Depreciation of property, plant and equipment	5.2	10.076,23	954,94
Amortization of intangible assets	5.1	200.296,16	66.667,00
Net interest expense	4.5	3.910,74	0,00
Net cash flows from operating activities		**-7.584.513,69**	**-1.447.781,19**
Cash flows from investing activities			
Disbursements for investments in property, plant and equipment	5.2	-23.889,23	-6.833,94
Disbursements for investments in intangible assets	5.1	-1.001.751,16	-2.000.000,00
Net cash flows from investing activities		**-1.025.640,39**	**-2.006.833,94**
Cash flows from financing activities			
Proceeds from issue of share capital	5.7	128.622,00	184.375,00
Proceeds from share premium reserves	5.7	6.875.947,86	8.589.550,00
Interest paid	4.5	-3.910,74	0,00
Net cash flows from financing activities		**7.000.659,12**	**8.773.925,00**
Net increase/decrease in cash and cash equivalents		**-1.609.494,96**	**5.319.309,87**
Cash and cash equivalents at the beginning of the period		**5.369.309,87**	**50.000,00**
Cash and cash equivalents at the end of the period		**3.759.814,91**	**5.369.309,87**

Table of Contents

Immunic AG Group

Consolidated financial statements as of 31 December 2017

1 General information

Immunic AG (the Company or the Group) is incorporated under German law with its registered office in Planegg, Germany. Immunic AG is registered in the commercial register of the local court of Munich, Germany, under number HRB 223333. The Company s address is Am Klopferspitz 19, 82158 Planegg-Martinsried, Germany.

The company was established on 25 January 2016 and traded under the name Blitz 16-571 AG, based in München, Germany.

On 23 March 2016 the company name was changed to Immunic AG and the company headquarters moved to Planegg-Martinsried.

The Company is the parent company of Immunic Research GmbH, Halle (Saale), Germany. The subsidiary was founded on 2 August 2016.

The business purpose of the group is research, development, manufacturing, approval and marketing of drugs. Immunic AG is the specialist for selective oral drugs in immunology. As a clinical stage company, clinical proof-of-concepts for best-in-class therapies of chronic inflammatory and autoimmune diseases are being delivered.

2 Basis of preparation

The 2017 consolidated financial statements of the Company, comprising the statement of financial position, statement of profit or loss, statement of comprehensive income, statement of changes in equity, statement of cash flows and supplementary notes, were prepared according to the International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB), as well as with the supplementary commercial law regulations of Article 315e (3) of the German Commercial Code (HGB). The term IFRS also refers to all valid International Accounting Standards (IAS) and all interpretations and amendments of the International Financial Reporting Standards Interpretations Committee (IFRS IC) formerly International Financial Reporting Interpretations Committee (IFRIC) and the former Standing Interpretations Committee (SIC).

The consolidated financial statements were prepared on the basis of historical cost, except for share-based payments, which were measured at fair value.

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction in the principal market at the measurement date under current market conditions (e.g. an exit price) regardless of whether that price is directly observable or estimated using another valuation technique.

Level 1: Quoted prices (unadjusted) in active markets for identical assets or liabilities that can be accessed at the measurement date.

Level 2: Inputs other than quoted prices from Level 1 that are directly observable or can be indirectly derived for the asset or liability.

Level 3: Unobservable inputs for the asset or liability.

As a rule, the Group classifies assets and liabilities as current if they are expected to be realized or settled within twelve months after the end of the reporting period. If assets and liabilities have both current and non-current components, they are broken down into these different components and recognized as current and non-current assets or liabilities according to the structure of the statement of financial position.

Table of Contents

Immunic AG Group

Consolidated financial statements as of 31 December 2017

The consolidated income statement is prepared in line with the function of expense method. The Company prepares and publishes the consolidated financial statements in euros (EUR). Deviations of up less than one unit (EUR, %) are mathematical rounding differences.

All IAS/IFRS (International Accounting Standards/International Financial Reporting Standards) whose application was mandatory for 31 December 2017 and all SIC/IFRIC (Standing Interpretations Committee/International Financial Reporting Interpretations Committee) interpretations effective as of 31 December 2017 were complied with.

3 Scope of consolidation

3.1 Fully consolidated entities

In 2017, the Company s scope of consolidation comprised the parent company and Immunic Research GmbH, Halle (Saale), Germany.

3.2 Unconsolidated entities

Immunic Australia Pty Ltd., Collingwood, Australia, was established on 28 November 2017. The registration in the Australian Business Register went effective on 1 January 2018 and also the subsidiaries business activities started in 2018. Full consolidation of the entity will commence 1 January 2018.

4 Notes to the consolidated statement of profit or loss

4.1 Other operating income

The other operating income amounts to EUR 42,946.68 (2016: EUR 5,500.00).

4.2 Research and development expenses

EUR	2017	2016
External services	6.357.764,67	622.194,21
Personnel expenses	422.204,20	33.070,86

Amortization on licences	200.000,00	66.667,00
Research and development expenses	**6.979.968,87**	**721.932,07**

Research & Development expenses include mainly external development expenses and internal personnel expenses for the two development programs IMU-838 and IMU-935. These two programs include orally available, small molecule inhibitors of DHODH (IMU-838 program) and inverse agonists of RORyt (IMU-935 program) relevant to diseases such as ulcerative colitis, Crohn s disease and psoriasis. In 2017 Immunic completed its clinical phase 1 program for IMU-838 exploring its pharmacokinetic properties, as well as its safety and tolerability. The program comprised a single ascending dose (SAD) and multiple ascending dose (MAD) study in healthy volunteers. Furthermore the preclinical development of program IMU-935 was driven forward.

Table of Contents

Immunic AG Group

Consolidated financial statements as of 31 December 2017

4.3 Administrative expenses

EUR	2017	2016
Personnel expenses	585.393,77	102.635,28
Legal and consulting costs	251.372,03	343.777,26
Remuneration supervisory board	65.600,00	0,00
Miscellaneous expenses	28.239,57	6.765,88
Insurance premiums, fees, duties	11.620,67	1.395,30
Depreciation and amortization	10.372,39	954,94
Rental and leasing	7.089,01	322,79
Adminstrative expenses	**959.687,44**	**455.851,45**

4.4 Other operating expenses

EUR	2017	2016
Advertising and travel expenses	148.628,51	20.781,79
Rental and leasing	24.005,80	1.107,16
Miscellaneous expenses	5.806,32	7.534,38
Maintenance and repairs	4.908,01	189,45
Other operating expenses	**183.348,64**	**29.612,78**

4.5 Interest and similar income and expenses

In the reporting period miscellaneous interest and similar expenses amount to EUR 3.910,74 (2016: EUR 0,00).

4.6 Income tax expense

Subject to the current financial performance and earnings situation, the group did not generate any taxable income and as such did not incur any income tax expense.

4.7 Earnings per share

		2017	2016
Income after income tax expense attributable to owners of Immunic AG	EUR	-8.083.969	-1.201.896
Weighted average number of ordinary shares to calculate earnings per share			
Basic	Number	301.554	112.587
Diluted	Number	301.554	112.587
Earnings per share			
Basis	EUR	-26,81	-10,68
Diluted	EUR	-26,81	-10,68

Table of Contents

Immunic AG Group

Consolidated financial statements as of 31 December 2017

5 Notes to the statement of financial position

5.1 Intangible assets

EUR	Patents, concessions, other rights	Total
Historical cost		
Balance as of 1 January 2017	3.000.000,00	3.000.000,00
Additions	1.751,16	1.751,16
Balance as of 31 December 2017	3.001.751,16	3.001.751,16
Cumulative amortization		
Balance as of 1 January 2017	-66.667,00	-66.667,00
Additions	-200.296,16	-200.296,16
Balance as of 31 December 2017	-266.963,16	-266.963,16
Net carrying amounts as of 31 December 2017	2.734.788,00	2.734.788,00

Major additions included the acquisition of the IP rights of IMU-838 and IMU-935 (formally named IMU-366). The initial payment was made in 2016 with the amount of EUR 2.000.000,00, whereof EUR 1.400.000,00 was allocated to IMU-838 and EUR 600.000,00 to IMU-935 (formally named IMU-366). After the successful completion of a clinical phase I in 2017 a second payment of EUR 1.000.000,00 was due. At signing of the agreement in 2016, the successful completion of the clinical phase I was deemed to be highly probable, consequently this second tranche was capitalized in 2016 and thereof EUR 700.000,00 was allocated to IMU-838 and EUR 300.000,00 to IMU-935 (formally named IMU-366).

The licenses are amortized over their useful life of 15 years.

EUR	Patents, concessions, other rights	Total
Historical cost		
Balance as of 25 January 2016	0,00	0,00
Additions	3.000.000,00	3.000.000,00
Balance as of 31 December 2016	3.000.000,00	3.000.000,00
Cumulative amortization		

Balance as of 25 January 2016	0,00	0,00
Additions	-66.667,00	-66.667,00
Balance as of 31 December 2016	-66.667,00	-66.667,00
Net carrying amounts as of 31 December 2016	2.933.333,00	2.933.333,00

The amortization of EUR 200.296,16 (2016: EUR 66.667,00) was recognized in the consolidated statement of profit or loss under research and development expenses.

No impairment losses or reversals of impairment losses were recognized in the periods shown.

Currently the Group has no intangible assets with indefinite useful lives.

Table of Contents

Immunic AG Group

Consolidated financial statements as of 31 December 2017

5.2 Property, plant and equipment

EUR	Property, plant and equipment	Total
Historical cost		
Balance as of 1 January 2017	6.833,94	6.833,94
Additions	23.889,23	23.889,23
Balance as of 31 December 2017	30.723,17	30.723,17
Cumulative depreciation		
Balance as of 1 January 2017	-954,94	-954,94
Additions	-10.076,23	-10.076,23
Balance as of 31 December 2017	-11.031,17	-11.031,17
Net carrying amounts as of 31 December 2017	19.692,00	19.692,00

EUR	Property, plant and equipment	Total
Historical cost		
Balance as of 25 January 2016	0,00	0,00
Additions	6.833,94	6.833,94
Balance as of 31 December 2016	6.833,94	6.833,94
Cumulative depreciation		
Balance as of 25 January 2016	0,00	0,00
Additions	-954,94	-954,94
Balance as of 31 December 2016	-954,94	-954,94
Net carrying amounts as of 31 December 2016	5.879,00	5.879,00

Mayor addtions relate to computer hardware and office equipment. The useful lives range from 1 to 13 years.

The depreciation on property, plant and equipment of EUR 10.076,23 (2016: EUR 954,94) was recognized in the consolidated statement of profit or loss under administrative expenses.

No impairment losses or reversals of impairment losses were recognized on property, plant and equipment in the periods shown.

5.3 Trade and other receivables

The trade receivables as of 31 December 2017 amount to EUR 47.722,30 (2016: EUR 0,00). The group received the cash for the outstanding receivables in April and May 2018.

No valuation allowances have been applied to trade receivables.

With regard to the receivables there are no indications that the debtors will not meet their payment obligations.

Trade receivables do not bear interest and have a term of less than one year.

Table of Contents

Immunic AG Group

Consolidated financial statements as of 31 December 2017

Aging of trade receivables

EUR	31 December 2017	31 December 2016
Not past due and not individually impaired	0,00	0,00
Past due but not individually impaired		
Past due 1 to 30 days	0,00	0,00
Past due 30 to 60 days	0,00	0,00
Past due 60 to 90 days	0,00	0,00
Past due 90 to 180 days	47.722,30	0,00
Total past due but not individually impaired	47.722,30	0,00
Carrying amount of trade receivables	**47.722,30**	**0,00**

At the end of the reporting period, there is no indication of any significant defaults of trade receivables that are neither past due nor impaired.

5.4 Other current non-financial assets

EUR	31 December 2017	31 December 2016
VAT receivables	299.297,13	541.521,52
Prepaid expenses	51.407,28	14.584,68
Miscellaneous	12.117,26	963,28
Other current non-financial assets	**362.821,67**	**557.069,48**

5.5 Deferred tax assets

In general, deferred tax assets for deductible temporary differences as well as tax loss carryforwards need to be recognized for companies, which will have sufficient taxable income in future periods in order to be able to utilize the tax benefits from temporary differences and loss carryforwards.

The total tax loss carryforwards of EUR 9.285.865,31 (2016: EUR 1.201.896,30) are not expected to be usable within a reasonable period. As such no deferred tax assets were recognized.

Deferred tax assets on temporary differences relating to stock option liabilities were not taken into account, since currently it is not probable that the corresponding tax benefits will be realized.

5.6 Cash and cash equivalents

EUR	31 December 2017	31 December 2016
Cash in hand	500,91	0,00
Bank balances	3.759.314,00	5.369.309,87
Cash and cash equivalents	**3.759.814,91**	**5.369.309,87**

Table of Contents

Immunic AG Group

Consolidated financial statements as of 31 December 2017

5.7 Equity

Subscribed capital corresponds to the share capital according to Immunic AG´s bye-laws and the entry in the commercial register and has been fully paid up. Share capital amounts to EUR 362.997,00 and is divided in 362.997 individual shares with a theoretical interest of EUR 1,00 each in the share capital. It comprises 50.000 individual shares, 13.541 preference shares (series A-1 and 299.456 preference shares (series A-2).

By resolution of the general meeting of 6 September 2016 the management board has been authorized to increase, with the supervisory board´s approval, the share capital until 30 June 2021 one or several times by a total amount of EUR 117.187,00 against cash contribution, whereas the shareholders subscription right shall be excluded (authorized capital 2016/I).

This was entered in the commercial register on 10 October 2016. Due to the aforementioned authorization, the share capital was increased for EUR 41.666,00 to EUR 276.041,00. Such increase was entered in the commercial register on 27 January 2017. After a partial exploitation, authorized capital 2016/I still amounts to EUR 75.521,00. The general meeting of 25 August 2017 decided on the increase of share capital by EUR 86.956,00 and a revision of the bye-laws. The following has been changed: Share Capital. The capital increase was entered in the commercial register on 11 September 2017.

In the business year 2017, an amount of EUR 6.875.947,86 was contributed to capital reserves. In the business year 2016, an amount of EUR 8.589.550,00 was contributed to capital reserves. When preparing the consolidated annual financial statements as of 31 December 2017, a loss carryforward in the amount of EUR 1.201.896,30 was included in the net loss by taking into account the partial appropriation of profits. The development of equity is presented in the consolidated statement on the change of equity.

5.8 Provisions

The following provisions are reported as other provisions in the statement of financial position:

EUR	**Unbilled Services**	**Accounting and Audit**	**Other**	**Total**
25 January 2016		**0**		
Provisions added during the year	0,00	16.500,00	0,00	16.500,00
31 December 2016	**0,00**	**16.500,00**	**0,00**	**16.500,00**
Provisions added during the year	20.150,00	29.100,00	2.000,00	51.250,00
Provisions used during the year	0,00	-15.981,00	0,00	-15.981,00

Provisions reversed during the year	0,00	-519,00	0,00	-519,00
31 December 2017	**20.150,00**	**29.100,00**	**2.000,00**	**51.250,00**

5.9 Current trade payables

The trade payables (2017: EUR 211.314,12; 2016: EUR 1.206.618,97) are exclusively to third parties and are secured to the extent customary in the industry by the suppliers retention of title.

Table of Contents

Immunic AG Group

Consolidated financial statements as of 31 December 2017

5.10 Other current non-financial liabilities

EUR	31 December 2017	31 December 2016
Liabilities from wage and church taxes	67.223,91	17.243,68
Liabilities to members of supervisory board	29.900,00	0,00
Employee related liabilities	20.795,22	3.200,00
Social security	1.602,98	0,00
Other current non-financial liabilities	**119.522,11**	**20.443,68**

6 Notes on the consolidated statement of cash flows

Cash flows from investing activities include payments of EUR 1.000,000,00 (2016: EUR 2.000.000,00) for the acquisition of the licences IMU-838 and IMU-366.

Immunic AG is entirely financed by equity. The group received cash from the issue of share capital of EUR 128.622,00 (2016: EUR 184.375,00) and share premium reserves of EUR 6.875.947,86 (2016: EUR 8.589.550,00).

7 Additional disclosures regarding financial instruments

Financial assets and liabilities can be broken down into the IAS 39 measurement categories as follows for the reporting periods 2017 and 2016:

		Measurement balance sheet according to IAS 39				Fair value	
		Carrying amount					
EUR	Categories acc. to IAS 39	31 December 2017	Amortised costs	Fair value through OCI	Fair value - through profit or loss	31 December 2017	Hierarchy
Financial assets assigned to categories							
Trade recivables	LaR	47.600	47.600	0	0	47.600	Level 2
Cash-in-hand and cash equivalents	LaR	3.759.815	3.759.815	0	0	3.759.815	Level 2
Financial liabilities assigned to categories							

Trade payables	FLAC	211.314	211.314	0	0	211.314	Level 2

		Measurement balance sheet according to IAS 39				Fair value	
	Categories acc. to IAS 39	Carrying amount 31 December 2016	Amortised costs	Fair value - through OCI	Fair value through profit or loss	31 December 2016	Hierarchy
EUR							
Financial assets assigned to categories							
Trade receivables	LaR	0	0	0	0	0	Level 2
Cash-in-hand and cash equivalents	LaR	5.369.310	5.369.310	0	0	5.369.310	Level 2
Financial liabilities assigned to categories							
Trade payables	FLAC	1.206.619	1.206.619	0	0	1.206.619	Level 2

Table of Contents

Immunic AG Group

Consolidated financial statements as of 31 December 2017

The total of the carrying amounts of the financial instruments categories specified by IAS 39 are as follows:

	Carrying amount	
EUR	**31 December 2017**	**31 December 2016**
Summary per category		
Loans and receivables (LaR)	3.807.415	5.369.310
Financial liabilities at amorticed costs (FLAC)	211.314	1.206.619

8 Share-based payments

Virtual Stock Options Program for the Members of the Supervisory Board

Under the virtual stock options program for the members of the supervisory board (the VSOP SB), the Company may grant virtual stock options of the Company to members of the Company s supervisory board for the time period of their office as member of the Company s supervisory board. The VSOP SB shall incentivize the beneficiaries to dedicate their working capabilities in the best manner possible to the benefit of the Company. The shareholders meeting has passed the VSOP SB with a total volume of 1.840 virtual stock options, of which 260 were granted by 26 September 2017. The virtual stock options vest if and when an exit event occurs, i.e. a direct initial public offering has taken place, or an indirect initial public offering has taken place, or a trade sale has been consummated, or a disposal of the Company s assets been consummated, or another financially equivalent circumstance has been consummated where the previous shareholders of the Company are put in the same position as in the aforementioned cases and a realization has occurred. An exit event results in the exercise of the virtual stock options. The virtual stock options granted will not vest if the exit event does not occur. The VSOP SB is a cash-settled virtual stock options program. The Company accounts for the VSOP SB as a cash-settled stock-based payment transaction.

The liability for the virtual stock options program is measured, initially and at the end of each reporting period until settled, at the fair value of the virtual stock options by applying an option pricing model, taking into account the terms and conditions on which the virtual stock options were granted; in particular, their characteristic as zero-cost options with a determined exercise price of nil.

Expense arising from stock-based payment transactions

The expense recognized for employee services received during the year is shown in the following table:

EUR	**1 January - 31 December 2017**	**25 January - 31 December 2016**

Expense arising from cash-settled stock-based payment transactions	29.900	0

EUR	**31 December 2017**	**31 December 2016**
Liability arising from cash-settled stock-based payment transactions	29.900	0

There were no cancellations or modifications to the awards in 2017.

Table of Contents

Immunic AG Group

Consolidated financial statements as of 31 December 2017

Movements during the year

The following table illustrates the number and weighted average exercise prices of, and movements in, stock options during the year:

	31 December 2017		31 December 2016	
	Number of virtual stock options	Exercise price (EUR)	Number of virtual stock options	Exercise price (EUR)
Outstanding at 1 January	0		0	
Granted during the period	260	0,00	0	
Forfeited during the period	0		0	
Exercised during the period	0		0	
Expired during the period	0		0	
Outstanding at 31 December	260	0,00	0	
Exercisable at 31 December	0		0	

The fair value of each virtual stock options granted during the year was EUR 115.

The exercise price of virtual stock options outstanding at the end of the year was EUR 0. The remaining contractual life for the virtual stock options was not limited.

Measurement

The fair value of the Company s stock of EUR 115 was determined based on prices paid in recent transactions.

As the fair value of the zero-cost option granted in course of the VSOP SB equals the fair value of the underlying stock (assuming no dividends), further inputs usually used to determine the fair values of stock options were not collected.

9 Critical estimates and judgements

In the process of applying the accounting policies, Group management made judgments that significantly influence the amounts recognized in the consolidated financial statements. Accordingly, the preparation of the consolidated financial statements requires to a certain degree assumptions and estimates that affect the amount and disclosure of the assets and liabilities, income and expenses, and contingent liabilities recognized for the period under review. They relate primarily to the assessment of the recoverability of assets, the Group s uniform definition of economic useful lives for property, plant and equipment and the recognition and measurements provisions.

The assumptions and estimates are premised on the knowledge currently available. In particular, the expected future business performance was based on the circumstances at the time the consolidated financial statements were prepared and the future development of the environment deemed to be realistic. If these framework conditions develop differently than assumed and outside of the management s sphere of influence, the ensuing amounts can differ from the original estimates.

The key assumptions concerning the future and other key sources of estimation uncertainty at the end of the reporting period, due to which there is a significant risk that an adjustment to the carrying amounts of assets and liabilities will be necessary in upcoming reporting periods, are described below.

Immunic AG Group

Consolidated financial statements as of 31 December 2017

Definition of the useful lives of property, plant and equipment and of software and licenses

The Company bases its estimates of the useful lives of assets on past experience. However, accelerated technological progress means that, for example, faster depreciation and amortization may be necessary.

Classification as operating or finance lease

Lease classification depends primarily on estimates of the economic useful life of the leased asset, its fair value at the date of classification and assumptions or estimates of the discount rate to be used.

Valuation allowances on receivables

The management bases its estimates regarding the size of valuation allowances on the principle of individual measurement. In part, estimates of the requirement for specific valuation allowances are subjective estimates regarding the customers credit quality. They are therefore subject to an inherent assessment uncertainty.

Provisions

Provisions differ from other liabilities in terms of uncertainties regarding the timing or amount of expenditures required in the future. A provision must be recognized when the Company has a present obligation (legal or constructive) as a result of a past event, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation (see IAS 37.14).

There are considerable recognition and measurement uncertainties due to differing economic and legal assessments and the difficulties of determining the probability of occurrence.

10 Financial risk management

The management of the Group monitors and manages the financial risks associated with the Group s businesses by means of internal risk reporting, in which the Group analyses risks according to their scale and scope. These risks include credit risk, liquidity risk and market risk (foreign currency risk and interest rate risk).

In some cases, the Group may minimize the effects of these risks with derivative financial instruments. The use of financial derivatives is governed by guidelines set by the Group management, which contain requirements for the management of currency, interest rate and default risks. In addition, basis rules are laid down for the use of derivative and non-derivative financial transactions and for the investment of excess liquidity. Compliance with the guidelines and risk limits is monitored continuously. The Group does not contract or trade financial instruments, including derivative financial instruments, for speculative purposes.

10.1 Credit risk

There are credit risks with regard in particular to trade receivables and other receivables. They are limited by limiting and constantly monitoring the individual receivables. There are no specific credit risks with regard to customers. Risks from deterioration in customers solvency and credit rating are already actively countered as part of acquisition management at the time of customer acquisition. There have been no major defaults in the past.

Free liquidity is usually deposited in current accounts and term deposits at commercial banks. The maximum default risk of the recognized assets equals their carrying amount.

Table of Contents

Immunic AG Group

Consolidated financial statements as of 31 December 2017

10.2 Liquidity risk

Prudent liquidity management includes holding a sufficient reserve of cash and cash equivalents.

The management of the Group monitors the liquidity of the operating companies and the Group as a whole with rolling cash flow projections.

The risk from contractually agreed cash flows for financial liabilities is set out below:

31 December 2017

EUR	Up to 1 year	1-5 years	More than 5 years	Total
Trade Payables	211.314,12	0,00	0,00	211.314,12
Total	**211.314,12**	**0,00**	**0,00**	**211.314,12**

31 December 2016

EUR	Up to 1 year	1-5 years	More than 5 years	Total
Trade Payables	1.206.618,97	0,00	0,00	1.206.618,97
Total	**1.206.618,97**	**0,00**	**0,00**	**1.206.618,97**

10.3 Market risk

10.3.1 Foreign currency risks

The operating business is subject to minor currency risks due to purchases and sales arranged in currencies other than the euro.

10.3.2 Interest rate risk

Currently the company does not hold any interest bearing liabilities.

11 Capital risk management

The Group s objectives with regard to capital management are firstly to secure the business as a going concern in order to continue providing shareholders with returns and the other stakeholders with the deliverables owed, and secondly to maintain an optimum capital structure in order to reduce the cost of capital. As required, the Group maintains or changes the capital structure by adjusting the dividend payments to shareholders, making capital repayments to shareholders, or selling assets in order to repay liabilities.

EUR	31 December 2017	% of total equity and liabilities	31 December 2016	% of total equity and liabilities
Equity	6.542.630	96,9%	7.622.029	86,3%
Financial liabilities	211.314	3,1%	1.206.619	13,7%
Total equity and financial liabilities	**6.753.944**	**100,0%**	**8.828.648**	**100,0%**

Table of Contents

Immunic AG Group

Consolidated financial statements as of 31 December 2017

12 Contingent liabilities

In May 2016 the company entered into an Asset and Purchase Agreement (APA) with 4SC AG. This agreement includes payments (Tranches III and IV) that are contingent to certain events to occur. The arrangement requires the Company to pay an amount equal to 4.4% of the aggregated net sales for a certain period as defined in the agreement (Tranche III). Net Sales have not yet been generated and it remains highly uncertain whether a commercial sale of a product will be achieved in the near future. Tranche IV of this APA would require the Company to pay 4 % of any exit proceeds to 4SC. As of the date of issuance of the consolidated financial statements there is no evidence of an exit event such as described in the arrangement.

13 Financial commitments

The Group leases office space and office equipment. The underlying lease agreements have a lease term of between one and three years.

As of the end of the reporting period, the future minimum lease payment obligations due to non-cancellable operating leases were as follows:

EUR	31 December 2017	31 December 2016
Commitments for minimum lease payments in relation to non-cancellable operating leases are payable as follows:		
Up to 1 year	29.590,80	20.248,98
1-5 years	28.854,00	38.336,16
> 5 years	0,00	0,00
Total	**58.444,80**	**58.585,14**

14 Related party disclosures

According to IAS 24, the Group s related parties are

the parent company Immunic AG, Planegg, and its subsidiaries and material investments outside the Group;

other parties that can be influenced by or can influence the reporting entity, such as

- the members of the Company s management board and supervisory board;
- the members of Immunic AG s management board and supervisory board;
- interests held by members of the management board or supervisory board of the Company or Immunic AG in companies outside of the Group and the Immunic Group.

Balances and transactions between the Company and its subsidiaries that are related parties were eliminated in the process of consolidation and are not described in these notes. Details on transactions between the Group and other related parties are given below.

14.1 Business relations with Immunic AG and other subsidiaries and investments not belonging to the Group

Over the course of the reporting period, Group companies conducted the following transactions with related parties not covered by the scope of consolidation.

Table of Contents

Immunic AG Group

Consolidated financial statements as of 31 December 2017

In 2016 Life Care Partners GmbH, Nenzlingen/Basel, Switzerland, provided various consulting services to the company. Amounts of CHF 21.600,00 and CHF 8.647,24 were charged.

In 2017 Life Science Partners provided consulting services to the company and charged EUR 9.007,61.

There were no balances outstanding from these transactions at the end of the reporting period.

14.2 Business relations with and payments to members of the management board and the supervisory board

In the period under review and in the comparative period, there were the following business relations with key management personnel of the Group, consisting of the members of the management board and the supervisory board:

During the reporting year, the management boards´s remuneration amounted to EUR 723.000,00. Such amount includes bonus payments to management board members in the amount of EUR 102.300,00. The individual management board members remuneration in the past reporting year is as follows:

EUR	Fixed remuneration	Variable remuneration (bonus)	Total
Dr. Daniel Vitt	215.000,00	33.000,00	248.000,00
Dr. Manfred Gröppel	150.000,00	26.400,00	176.400,00
Dr. Rolf Andreas Mühler	156.000,00	26.400,00	182.400,00
Dr. Hella Kohlhoff	100.000,00	16.500,00	116.500,00
Total	**621.000,00**	**102.300,00**	**723.300,00**

During the reporting year, the supervisory board´s remuneration amounts to EUR 25.000,00 for Dr. Gerhard Ries and 260 stock options granted to Dr. Thomas Taapken (see Fn. 8 for details). The individual advisory board members remuneration in the past reporting year is as follows:

	Remuneration
Dr. Jörg Neermann	No Remuneration
Dr. Gerhard Ries	EUR 25.000,00
Dr. Thomas Taapken	260 Stock Options
Vincent Ossipow	No Remuneration

Jan Van den Bosche No Remuneration

Outstanding liabilities against members of the boards amount to EUR 11.349,96 as of 31 December 2017 (2016: EUR 0,00).

In the periods described, the Company neither granted nor received loans to or from employees in key positions.

15 Additional information according to HGB

The average number of employees is shown in the table below:

	2017	2016
Employees	5	0
Total	5	0

Table of Contents

Immunic AG Group

Consolidated financial statements as of 31 December 2017

Auditor s fees break down as follows:

EUR	2017	2016
Audit fees	18.000,00	0,00
Total	18.000,00	0,00

16 Events after the end of the reporting period

In January and February 2018, an amount of EUR 10.131.701,90 was contributed to capital reserves (Tranche II). Tranche III (EUR 5.789.739,24) was contributed to capital reserves in November / December 2018.

In May 2018 the Company granted 144 stock options to two key employees.

In November 2018 the Company signed an engagement letter with BMO Capital Markets Corp. (BMO) subject to which BMO acts as exclusive financial advisor in connection with a possible acquisition. In exchange BMO will receive a fee payable in respect of any transaction that is consummated and payable promptly on the closing thereof, equal to $1,000,000 (transaction fee). In addition under certain conditions the agreement includes a fee of 20% of any transaction-related break-up fee.

In November 2018 the company entered into an agreement with Daiichi Sankyo Co., Ltd. granting Immunic the exclusive right to license a group of compounds, designated by Immunic as IMU-856. The group of compounds uses a new pharmaceutical target based on animal models and promises an innovative way to a potentially disease-modifying treatment of inflammatory bowel disease (IBD). This development program also contains an orally available drug lead compound that is currently undergoing formal toxicology assessment in preparation of first human use. Immunic will be responsible for all further development as well as for all clinical development activities.

In December 2018 Immunic AG signed exit bonus agreements with all members of the management board. In case of an exit event each member of the management board has the right to receive 2,00% of the overall disposal proceeds, including contingent or deferred proceeds like earn-out payments, reduced by transaction costs incurred.

In December 2018 the Company agreed a term sheet on a potential reverse merger with a public US company.

Other than the above reported item, as of the issue date of these consolidated financial statements there were no material subsequent events that would require recognition or adjustment of the consolidated financial statements.

17 Summary of significant accounting policies

This note provides a list of the significant accounting policies adopted in the preparation of these consolidated financial statements. These policies have been consistently applied to all the years presented, unless otherwise stated. The financial statements are for the Group consisting of the Company and its subsidiaries.

Table of Contents

Immunic AG Group

Consolidated financial statements as of 31 December 2017

17.1 Effects of new accounting standards

17.1.1 Amended standards adopted by the Group

The Group has applied the following standards and amendments for the first time for its annual reporting period commencing 1 January 2017:

Recog*nition of Deferred Tax Assets for Unrealised Losses Amendments to IAS 12,* and

Disclosure initiative amendments to IAS 7.

Adoptions of these amendments had no material impact on the Company s financial position.

17.1.2 New standards and interpretations not yet adopted

The following new or amended standards and interpretations have already been published by the IASB. The Company has not applied the standards early.

New standards		Effective for annual periods beginning on or after:
IFRS 9	Financial instruments	1 January 2018
IFRS 15	Revenue from contracts with customers	1 January 2018
IFRS 16	Leases	1 January 2019
Amendments to IFRS 10 and IAS 28	Sale or contribution of assets between an investor and its associate or joint venture	Effective date postponed indefinitely
Amendments to IFRS 2	Classification and measurement of share-based payment transactions	1 January 2018
Annual improvements to IFRS	2014 2016 cycle	1 January 2017 or 2018
Amendments to IAS 40	Transfers of investment property	1 January 2018
IFRIC 22	Foreign currency transactions and advance considerations	1 January 2018
IFRIC 23		1 January 2019

	Uncertainty over income tax treatments

IFRS 9 Financial Instruments

IFRS 9 Financial Instruments includes requirements for recognition, measurement and derecognition of financial assets and liabilities. The IASB issued the final version of the standard on 24 July 2014 in connection with the completion of the various phases of its extensive project on financial instruments. The previous recognition of financial instruments under IAS 39 Financial Instruments: Recognition and Measurement can now be fully superseded by recognition under IFRS 9. The current version of IFRS 9 supersedes all previous versions. The new standard is effective for annual period beginning on or after 1 January 2018. Early application is permitted. The Group will apply the standard for the first time for the financial year beginning on 1 January 2018 using the modified retrospective method.

In a group-wide project, the Group currently analyses the expected effects on the consolidated financial statements. The analysis is based on the Group s financial assets and financial liabilities as of 31 December 2017 and of the facts and circumstances existing at this date.

Classification and measurement

Based on the current project status, the Group does not expect a significant impact on its balance sheet or equity on applying the classification and measurement requirements of IFRS 9. It expects to continue measuring at fair

Immunic AG Group

Consolidated financial statements as of 31 December 2017

value all financial assets currently held at fair value. As there are currently no material available-for-sale assets with gains and losses recorded in OCI, there will be no material effect from the new classification and measurement requirements.

Loans as well as trade receivables are allocated to a business model when they arise. Usually these instruments are held to collect contractual cash flows and are expected to give rise to cash flows representing solely payments of principal and interest. The Group analyzed the contractual cash flow characteristics of those instruments and concluded that they meet the criteria for amortized cost measurement under IFRS 9.

The Group will not apply the fair value option to eliminate an accounting mismatch.

Impairment

IFRS 9 requires the Immunic Group to record expected credit losses on all of its debt securities, loans and trade receivables, either on a 12-month or lifetime basis. Immunic Group will apply the simplified approach and record lifetime expected losses on all trade receivables.

Hedge accounting

As of the reporting date the Group has no hedging instruments and therefore there will be no effect from the transition to IFRS 9.

IFRS 15 Revenue from Contracts with Customers

In May 2014, the IASB published IFRS 15, Revenue from Contracts with Customers .

The objective of IFRS 15 is to aggregate the revenue recognition rules included in various standards and interpretations and define basic principles applicable to all industries and all types of sales transactions with a five-step revenue recognition model.

IFRS 15 determines the timing and the amount of revenue recognition. Revenue recognized should reflect the transfer of the promised goods or services to the customer at the amount corresponding to the consideration that the enterprise expects to receive in exchange for those goods or services.

In addition, the new standard requires the disclosure of a number of quantitative and qualitative information.

IFRS 15 replaces IAS 11, construction contracts , and IAS 18, revenue , and the related interpretations. The standard is effective for annual periods beginning on or after 1 January 2018; early adoption is permitted. The Group will apply the standard for the first time for the financial year beginning on 1 January 2018 using the modified retrospective method and will apply the standard retrospectively only to contracts that are not completed contracts on the date of

initial application.

Due to the business model and current clinical stages of the developments by the company, the sales cycle and accordingly revenue recognition is not yet of the essence to the consolidated financial statements and as such, no effect is expected by means of the transition to IFRS 15.

IFRS 16 Leases

In January 2016, the IASB adopted IFRS 16 Leases , the new standard for lease accounting. IFRS 16 will replace IAS 17 and the associated interpretations.

Immunic AG Group

Consolidated financial statements as of 31 December 2017

In accordance with IFRS 16, all leases are accounted for by the lessee in such a way that the right of use associated with the lease is recognized as an asset (so-called right of use asset) on the asset side and the corresponding discounted lease liability on the liability side.

Relief is available for leased assets of low value and for leases with short terms. The lease payments for these leases can be recognized as an expense on a straight-line basis (or another systematic basis for distribution) over the term of the lease.

Under the previous IAS 17, a distinction was made between on-balance-sheet finance leases and off-balance-sheet operating leases. This distinction between two different types of leases will no longer apply for the lessee when IFRS 16 comes into force. If a contract is classified as a lease, it falls within the scope of this Standard and must therefore be accounted for. Otherwise, it is a service contract that affects expenses.

In the case of the lessor, however, the provisions of the new standard are similar to the previous provisions of IAS 17. The criteria of IAS 17 were adopted for classification in accordance with IFRS 16. IFRS 16 also contains a number of additional regulations on the disclosure and disclosures in the notes as well as on sale and leaseback transactions.

The modified retrospective approach is applied for the transition to the new regulation. As a result, the new standard will only be applied to the most recent reporting period presented in the financial statements for 2019. The effects of the application of IFRS 16 on the consolidated financial statements are currently being examined. In principle, an extension of the balance sheet is assumed due to the scope of operating lease agreements.

Amendments to IFRS 10 and IAS 28 Sale or Contribution of Assets between an Investor and its Associate or Joint Venture

The amendments address a conflict between the requirements of IAS 28 Investments in Associates and Joint Ventures and IFRS 10 Consolidated Financial Statements. They clarify that in a transaction involving an associate or joint venture, the extent of gain or loss recognition depends on whether the assets sold or contributed constitute a business according to IFRS 3. The IASB has now deferred the effective date of the amendments indefinitely.

The Group holds no investments in associates or joint ventures. The amendments have no effect on the consolidated financial statements.

Amendments to IAS 12 Recognition of Deferred Tax Assets for Unrealized Losses

The amendments include the following clarifications:

Unrealized losses on assets recognized at fair value (e.g. fixed-interest debt instruments) but measured at cost for tax purposes give rise to a deductible temporary difference regardless of whether the Company plans to sell the instrument, to hold it to maturity, or a combination of the two.

Where tax law restricts the utilization of tax losses (e.g. if losses from the disposal of securities may only be used against corresponding gains on disposal), the Company must assess whether deferred tax assets are to be recognized for deductible temporary differences separately for deductible temporary differences of the same type.

Estimates for future taxable profits can in certain circumstances assume that an asset can be realized at greater than its carrying amount. They also exclude tax deductions resulting from the reversal of deductible temporary differences.

Table of Contents

Immunic AG Group

Consolidated financial statements as of 31 December 2017

The management assumes that the amendments to IAS 12 will not have significant effects on the consolidated financial statements.

Amendments to IFRS 2 Classification and Measurement of Share-Based Payment Transactions

The amendments involve a number of individual issues pertaining to the accounting of cash-settled share-based payment transactions. IFRS 2 now contains requirements on determining the fair value of obligations resulting from share-based payment transactions. The Company does not expect material impacts due to the amendments of IFRS 2 on its consolidated financial statements.

Annual Improvements to IFRSs (2014-2016)

Three IFRSs were amended in the Annual Improvements to IFRSs (2014-2016). In IFRS 12, it was clarified that disclosures pursuant to IFRS 12 generally also apply to an entity s interests in subsidiaries, joint ventures and associated companies that are classified as held for sale in accordance with IFRS 5, with the exception of the disclosures outlined in IFRS 12.B10-B16 (Financial Information). In IAS 28, it was clarified that the election to measure an investment in an associated company or a joint venture held by an entity that is a venture capital organization or other qualifying entity, can be exercised on an investment-by-investment basis. The short-term exemptions in IFRS 1, Appendix E (IFRS 1.E3-E7) for first-time IFRS users were deleted. The Company does not expect material impacts due to the above mentioned amendments on its consolidated financial statements.

Supplementary information on IFRIC 22 Foreign Currency Transactions and Advance Consideration

IFRIC 22 addresses an application question for IAS 21 The Effects of Changes in Foreign Exchange Rates. It clarifies the point in time for determining the exchange rate used to translate foreign-currency transactions containing advance payments that have been made or received. The date of the initial recognition of an asset or liability resulting from advance consideration is essential for determining the exchange rate for the underlying asset, income or expense. The Company does not expect impacts due to the above clarifications on its consolidated financial statements.

17.2 Significant accounting and valuation principles

The consolidated financial statements are based on uniform accounting and valuation principles. The annual financial statements of the companies which are included in the consolidated financial statements are prepared as of the reporting date of the consolidated financial statements.

The main accounting and valuation principles are explained below.

17.2.1 Principles of consolidation

Subsidiaries are companies controlled by the Company. The Group gains control when it exercises the power of disposition over the associated company, is exposed to variable returns from the investment, and has the ability to use its power over the associated company to influence the amount of the associated companies return.

The assessment of control is reviewed by Immunic AG if there are indications that one or more of the aforementioned criteria have changed.

The results of the subsidiaries acquired during the year are recognized in the consolidated profit and loss statement and in the other consolidated income as of the actual date of acquisition or until the actual date of disposal.

Table of Contents

Immunic AG Group

Consolidated financial statements as of 31 December 2017

The **acquisition of a company** is accounted for using the purchase method (acquisition method). The consideration transferred in the context of a company acquisition corresponds with the fair value of the assets given, the equity instruments issued and the liabilities incurred or assumed at the time of the transaction. In addition, they include the fair values of any recognized assets or liabilities resulting from a contingent consideration agreement. All costs associated with the acquisition are recognized as an expense when incurred. Assets, liabilities and contingent liabilities identifiable as parts of a business combination are initially measured for the initial consolidation at fair value at the date of acquisition.

Goodwill is recognized and tested for impairment at least once a year. It is calculated as the excess of the cost of the acquisition, the amount of the non-controlling interest of the acquiree and the fair value of any previously held equity interest at the acquisition date over the interest group of the net assets measured at fair value. If the acquisition costs are lower than the fair value of the net assets of the acquired subsidiary, the difference will be recognized directly in the consolidated income statement following a re-examination.

Balances and transactions with consolidated subsidiaries as well as income and expenses resulting therefrom are eliminated in full for the purpose of preparing the consolidated financial statements.

For temporary differences from consolidation, the tax deferrals required under IAS 12 were recognized.

17.2.2 Currency translation

The consolidated financial statements were prepared on the basis of the functional currency concept. Functional currency is the primary currency of the economic environment in which the Company operates. It is the Euro, which is also the presentation currency of the consolidated financial statements.

17.2.3 Other intangible assets

Acquired intangible assets, including software and licenses and internally generated intangible assets are recognized at cost.

To determine the recognition of internally generated intangible assets research and development expenses are to be separated. Expenditure on research activities undertaken with the prospect of gaining new scientific or technical knowledge and understanding is recognized as an expense in the period it is incurred.

The recognition of internally generated intangible assets is based on the cumulative fulfillment of IAS 38 recognition criteria: The technical feasibility of the development project and a future economic benefit from the development project must be demonstrated and the company must have the intent and the ability to complete the intangible asset, to use it or sell it. Furthermore, adequate technical, financial and other resources must be available to complete and it

must be possible to reliably determine the attributable expenditure for the intangible asset during its development.

The recognized costs cover the directly attributable costs for the development process and development-related overheads. According to IFRS, borrowing costs that are directly attributable to the acquisition, construction or production of a so called qualifying asset should be recognized as part of the cost. In the reporting and comparative period, no qualified assets were acquired or generated for which it would have been necessary to recognize borrowing costs

Table of Contents

Immunic AG Group

Consolidated financial statements as of 31 December 2017

If a useful life can be determined, then these intangible assets are amortized on a straight-line basis over the useful life. The following useful lives are used for amortization:

	Useful life in years
Software	3
Purchased concessions, industrial rights and similar rights and assets	3 to 15

Currently the Group has no intangible assets with indefinite useful lives.

17.2.4 Property, plant and equipment

Property, plant and equipment are recognized at cost less accumulated depreciation if the asset is depreciable, and impairments.

The cost of an item of property, plant and equipment covers all costs directly attributable to the acquisition of the asset. Repairs and maintenance are recognized in the consolidated income statement as an expense in the reporting period in which they are incurred. Initially internally generated assets are recognized with the directly attributable production costs and production-related overheads.

Depreciation is recognized on a straight-line basis over the estimated useful life in the consolidated income statement.

The following useful lives are mainly used:

	Useful life in years
Operating and office equipment	1 to 13

Assets leased under finance leases are depreciated over the shorter of the lease term and its useful life. Land is not depreciated.

To the extent there are material elements of property, plant and equipment contain components with considerably deviating using lives, these are recognized separately and depreciated over the respective useful life.

According to IFRS, borrowing costs that are directly attributable to the acquisition, construction or production of a so called qualifying asset should be recognized as part of cost. In the reporting and comparative period, no qualified assets were acquired or generated for which it would have been necessary to recognize borrowing costs.

The residual values and economic useful lives are checked to the end of every reporting period and adjusted where appropriate. The economic useful lives are based on estimates and are based to a large extent on experience in relation to historical use and technical development.

Gain and loss arising from disposals of assets shall be determined as the difference between the net disposal proceeds and the carrying amount of the asset and shall be recognized in profit or loss.

If there are indications of an impairment loss and if the carrying amount of property, plant and equipment exceeds the recoverable amount impairment losses are recognized. Recoverable amount is the higher of an asset s fair value less costs to sell and its value in use. If the reason for impairment taken no longer applies, a reversal to historical cost is undertaken.

Table of Contents

Immunic AG Group

Consolidated financial statements as of 31 December 2017

17.2.5 Impairment

For assets with a specific useful life, in accordance with IAS 36 a test is made at the end of the reporting period if there are indications of material impairment e.g. specific events or market developments which indicate a possible loss in value. In the reporting and previous period, there were no indications of impairment for depreciable intangible assets and property, plant and equipment.

Intangible assets with indefinite useful lives and internally generated assets under construction must be tested for impairment at the end of each reporting period. In the reporting period and in 2016, there were no intangible assets with indefinite useful lives.

In the case of indications for impairment or during the obligatory annual impairment test for intangible assets with indefinite useful life, the recoverable amount of the asset is determined. The recoverable amount of an asset is the higher of the fair value of the asset or cash-generating unit (CGU) less costs to sell and its value in use. Recoverable amount is determined for an individual asset, unless the asset does not generate cash inflows that are largely independent of those from other assets or groups of assets. In the latter case, the recoverable amount is to be determined on the basis of a CGU to which assets or a group of assets are allocated until an aggregation of assets that generates largely independent cash inflows is established. This is also the case for goodwill. Goodwill resulting from a business combination is allocated from the date of acquisition to the CGU or group of cash-generating units that is expected to benefit from the synergies of the combination and at which level the goodwill is monitored for internal management purposes.

To determine the value in use the expected cash flows are discounted to the present value on the basis of a pre-tax discount rate reflecting the current market assessments in respect to the interest effect and the specific risks of the asset. In determining the value in use, account is taken of the current and future expected income level as well as technological, economic and general development trends on the basis of approved financial budgets. To determine the fair value less costs to sell, account is taken of any recent market transactions.

If the carrying amount exceeds the recoverable amount of the asset or the CGU, an impairment loss is recognized in profit and loss at the level that the carrying amount exceeds the recoverable amount.

For goodwill if the impairment requirement is higher that the carrying amount of the goodwill of the CGU, then the goodwill is first fully amortized and the remaining impairment requirement distributed to the other assets of the CGU. In doing so for goodwill in the impairment test account is taken of the necessary impairment on individual assets of the CGU.

Reversals on the new recoverable amount are made, except for goodwill, when the reasons for the impairment in previous year no longer apply. The upper limits for reversals are the depreciated historical costs which would have resulted if no impairments have been recognized in previous years. In the reporting and comparative period, there were no reversals on intangible assets or property, plant and equipment.

17.2.6 Recognition of leases

A lease is an agreement whereby the lessor conveys to the lessee in return for a payment or series of payments the right to use an asset for an agreed period of time. The companies of the Company conclude contracts only as lessee.

Leases are classified as a finance lease if the leasing conditions transfer substantially all the risks and rewards incidental to lessor. Assets which are rented or leased and whose economic ownership is at the respective group company (finance lease), at the beginning of the contract the future leasing payments are recognized at the

Immunic AG Group

Consolidated financial statements as of 31 December 2017

lower of fair value or present value. Correspondingly liabilities at the same level are recognized in the statement of financial position against the lessor under financial liabilities . In measuring present value the interest rate underlying the agreement is used and if not available the marginal refinancing rate. The depreciation of these assets and the reversal of the liability take place across the contract period. If the useful life of the asset is shorter than the contract period, then this is relevant for determining the depreciation period. While the leasing asset is subject to straight-line depreciation over the term of the leasing agreement, the relevant leasing liability is amortized on a progressive basis using the effective interest rate method. As a result, during the period of the leasing contract there is a difference between the leasing obligation and the carrying amount of the leasing object.

Lease payments under an operating lease are recognized as an expense in the income statement on a straight-line basis over the lease term unless another systematic basis is more representative of the time pattern of the user s benefit.

Operate leasing contracts existing particularly for buildings, office space, technical equipment and machinery, office equipment as well as vehicles and hardware.

The Group does not enter into lease agreements as lessor.

17.2.7 Cash and cash equivalents

Cash and cash equivalents are cash, immediately disposable bank assets and short-term deposits at banks, all of which have a duration below three months. Utilized bank overdrafts are recognized under current finance liabilities.

17.2.8 Financial instruments

In accordance with IAS 32, a financial instrument is defined as any contract that gives rise to a financial asset of one entity and a financial liability or equity instrument of another entity. According to IFRS, they can include non-derivative financial instruments, such as trade receivables and payables, as well as derivative financial instruments.

Upon initial recognition, financial assets and financial liabilities are designated at fair value, which generally corresponds to origination cost. Transaction costs which are directly attributable to the acquisition or issue of the financial instrument are only then recognized at carrying amount if the corresponding financial instrument is not measured at fair value with changes in fair value recognized in profit or loss. The subsequent measurement depends on the categorization of the financial instruments.

a) Financial assets

A financial asset is any asset that is in particular:

- Trade and other receivables,
- Other financial assets and
- Cash and cash equivalents

Financial assets with a remaining term of more than twelve months are presented separately as non-current financial assets.

The Company divides financial assets into one of the following categories, with the held to maturity financial assets category not used by the Group due to lack of relevance.

Table of Contents

Immunic AG Group

Consolidated financial statements as of 31 December 2017

Assets at fair value through profit or loss

Assets at fair value through profit or loss are financial assets held for trading purposes. A financial asset is assigned to this category if it is acquired with the intention to sell in the short term. Derivatives also are included in this category if they do not qualify as hedges. Any gain or loss resulting from the fair value measurement is recognized in profit or loss. The recognized net gain or loss includes any dividends and interest on the financial asset. As of 31 December 2017 and 31 December 2016 there were no assets at fair value through profit and loss.

Available-for-sale financial assets

Available for sale financial assets are non-derivative financial assets that are designated to this category or cannot be assigned to any of the other categories. This category includes equity investments and debt securities. After initial measurement, Available for sale financial assets are subsequently measured at fair value with unrealized gains or losses recognized in OCI and credited to the Available for sale reserve until the investment is derecognized, at which time, the cumulative gain or loss is recognized in other operating income, or the investment is determined to be impaired, when the cumulative loss is reclassified from the available for sale reserve to the statement of profit or loss in finance costs. Interest earned whilst holding available for sale financial assets is reported as interest income using the effective interest rate method.

Loans and receivables

Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. They are measured at amortized cost less impairment losses using the effective interest rate method. Group loans and receivables are recognized in the consolidated statement of financial position under Trade and other receivables , Other financial assets and Cash and cash equivalents .

b) Impairment of financial assets

Financial assets, with the exception of the financial assets measured at fair value through profit or loss, are tested for possible impairment indicators at each reporting date. Financial assets are considered impaired if, as a result of one or more events occurring after the initial recognition of the asset, there is an objective indication that the expected future cash flows of the financial assets have changed negatively.

In the case of equity investments classified as available for sale, a substantial or persistent reduction in the fair value of the assets below their acquisition costs is an objective indication of an impairment.

For all other financial assets, there may be objective indications for an impairment in the following:

significant financial difficulties for the issuer or counterparty,

a breach of contract such as a default or default of interest or redemption payments,

an increased likelihood that the borrower will enter into insolvency or any other restructuring, or

the disappearance of an active market for this financial asset caused by financial difficulties.

For some categories of financial assets, e.g. trade receivables for which there is no impairment on a one-off basis, an impairment test is carried out on a portfolio basis. An objective indication of an impairment of a portfolio of receivables may be the Group s past experience of past payments, an increase in the frequency of defaults within the portfolio, and observable changes in the national or local economic environment to which defaults of receivables are linked.

Immunic AG Group

Consolidated financial statements as of 31 December 2017

In the case of financial assets measured at amortized cost, the impairment loss corresponds to the difference between the carrying amount of the asset and the present value of the expected future cash flows at the original effective interest rate of the financial asset.

Impairment results in a direct reduction in the carrying value of all financial assets affected, except for trade receivables whose carrying value is reduced by an impairment account. If a value-adjusted trade receivable is assessed as uncollectible, consumption is made against the impairment account. Subsequent inputs to amounts already recognized as an allowance are also posted against the impairment account. Changes in the carrying value of the impairment account are recognized in profit or loss through the consolidated statement of profit or loss.

If the amount of the impairment loss of a financial asset valued at amortized cost in one of the following financial years decreases and if this reduction can be attributed objectively to an event occurring after the impairment was recognized, the previously recorded impairment is reversed through the consolidated statement of profit or loss. However, a write-up may not exceed the amount that would have resulted if the cost of the asset had been amortized without impairment.

c) Financial liabilities

The financial liabilities primarily include:

Trade payables

Other financial liabilities (especially liabilities to banks)

Trade payables

At initial recognition, trade payables are measured at nominal value which corresponds to the fair value. As there are only current trade payables, the effective interest method is not used in any subsequent measurement.

Other financial liabilities

At initial recognition other financial liabilities are measured at fair value less transaction costs incurred.

Financial liabilities from original financial instruments are measured at amortized cost using the effective interest rate method. Financial assets and financial liabilities from derivative financial instruments, for which there is no hedge accounting, are measured at fair value through profit or loss.

The liability is classified as current because, at the end of the reporting period date, the entity does not have an unconditional right to defer its settlement to at least twelve months after the balance sheet date.

Financial instruments are derecognized from the balance sheet, if the rights for payments are expired or transferred and the Group transfers materially all risks and rewards relating to ownership.

Netting of financial assets and liabilities is only done, if netting amount is legally enforceable at that point in time. Due to lack of fulfilling this requirement, the Group does not net financial assets and liabilities.

The fair-value option in accordance to IAS 39 is not used.

Table of Contents

Immunic AG Group

Consolidated financial statements as of 31 December 2017

d) Derivative financial instruments

Currently, the Group does not hold any derivative financial instruments and it does not apply hedge accounting.

17.2.9 Other provisions

A provision is recognized when the Group has a present obligation (legal or constructive) as a result of a past event, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation (see IAS 37.14).

The provision amount is recognized at the expected settlement amount. Non-current provisions are discounted on the basis or the relevant market interest rates to the end of the reporting period.

17.2.10 Recognition of income and expense

Sales are recognized as revenue at the fair value of the consideration received or receivable, less any returns, trade discounts and volume rebates.

Sale of goods

Revenue from the sale of goods is recognized if based on the agreement with the respective customer (1) the significant risks and rewards associated with ownership of the goods and products were transferred to the buyer, (2) it is sufficiently probable that the economic benefits associated with the transaction will flow to the enterprise, (3) the costs incurred and the returns in respect of the transaction can be measured reliably, (4) the enterprise does not retain effective control over the goods and (5) the amount of revenue can be measured reliably. Depending on the respective customer contract and the respective order, the time of revenue recognition regularly is the same at the time of delivery or acceptance. Revenue is recognized when the Company acts as principal and not as agent in the respective transaction.

Other income and expenses

Interest is recognized on an accrual base as income or expense using the effective interest rate method. Interest income and expense arise mainly from cash at banks, loans, lease and factoring agreements as well Dividend income is recognized at the date that the right to receive the payment arises.

Expenses are recognized when the service is used or as of the date on which they occur.

Research costs are recognized through profit or loss in the period in which they are incurred. Expenses for development are recognized in profit and loss when incurred, unless they are development costs which must be

recognized as intangible assets as a result of the relevant conditions according to IAS 38 being present, which in the current reporting period is not the case

17.2.11 Income taxes

The income tax expense represents the sum of current tax expense and deferred tax.

Current taxes

The current tax expense is calculated on the basis of the taxable income for the year. The taxable income differs from the net income from the consolidated statement of comprehensive income due to expenses and income

Table of Contents

Immunic AG Group

Consolidated financial statements as of 31 December 2017

which are taxable or tax-deductible in later years or not at all taxable or tax-deductible. The group s current tax liabilities are calculated on the basis of the currently applicable tax rates or the tax rates which will be applicable shortly with respect to the balance sheet date.

Deferred taxes

Deferred taxes are calculated in accordance with IAS 12 on the basis of the internationally customary balance sheet liability method (liability method). Thereafter, deferred taxes are formed for all temporary differences between the tax bases and the valuations in the consolidated balance sheet as well as for tax loss carryforwards.

Deferred taxes on these determined differences are always recognized when they result in deferred tax liabilities. Deferred tax assets are only taken into account if it is probable that the corresponding tax benefits will be realized. Deferred tax assets and liabilities are also recognized on temporary differences arising in connection with company acquisitions, with the exception of temporary differences on goodwill, if these are not taken into account for tax purposes.

Deferred taxes are calculated using the tax rates for future years insofar as they have already been legally stipulated or the legislative process has essentially been completed. Changes in deferred taxes in the balance sheet generally result in deferred tax expenses or income. If certain events which result in a change of deferred taxes are posted directly to equity, the change of the deferred taxes is also recognized directly in equity.

17.2.12 Government grants

Government grants, including non-monetary grants at fair value, shall not be recognized until there is reasonable assurance that:

a) the enterprise will comply with the conditions attaching to them and

b) the grants will be received.

Grants are recognized as income over the periods in which the related costs where there are intended to compensate are incurred. Grants received as compensation for expenses incurred are recognized through profit or loss in the period in which they are incurred.

In 2016 a government grant of EUR 5.500,00 was recorded as other income. The granted amount was earmarked to cover consulting costs.

Approval of the financial statements

The financial statements were adopted by the Executive Board and approved for publication on 21 December 2018.

Munich, 21 December 2018

Dr. Daniel Vitt	Dr. Manfred Gröppel
Dr. Rolf Andreas Mühler	Dr. Hella Kohlhoff

Table of Contents

INDEPENDENT AUDITOR S REPORT

The Board of Managers

Immunic AG:

Report on the Financial Statements

We have audited the accompanying financial statements of Immunic AG (the Company), which comprise the balance sheet as of December 31, 2016, and the related statements of income, changes in equity, and cash flows for the year then ended, and the related notes to the financial statements.

Management s Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with the International Financial Reporting Standards as issued by the International Accounting Standards Board; this includes the design, implementation, and maintenance of internal controls relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor s Responsibility

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America and in accordance with International Standards on Auditing. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor s judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal controls relevant to the entity s preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity s internal controls. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Immunic AG as of December 31, 2016, and the results of its operations and its cash flows for the year then ended, in accordance with the International Financial Reporting Standards as issued by the International Accounting Standards Board.

/s/ Baker Tilly GmbH & Co. KG Wirtschaftsprüfungsgesellschaft (Düsseldorf)

Munich, Germany

January 30, 2019

Table of Contents

Immunic AG Group

Consolidated financial statements as of 31 December 2016

Consolidated statement of profit or loss and comprehensive income

For the year ended 31 December 2016

EUR	Note	2016
Other operating income	4.1	5.500,00
Research and development expenses	4.2	-721.932,07
Adminstrative expenses	4.3	-455.851,45
Other operating expenses	4.4	-29.612,78
Income before income tax expense		**-1.201.896,30**
Income tax expense	4.5	0,00
Income after income tax expense		**-1.201.896,30**
Thereof attributable to owners of Immunic AG		-1.201.896,30
Earnings per share in EUR (basic)	4.6	-10,68
Earnings per share in EUR (diluted)	4.6	-10,68

Table of Contents

Immunic AG Group

Consolidated financial statements as of 31 December 2016

Consolidated statement of financial position

As of 31 December 2016

EUR	Note	31 December 2016	25 January 2016
ASSETS			
Intangible assets	5.1	2.933.333,00	0,00
Property, plant and equipment	5.2	5.879,00	0,00
Non-current assets		**2.939.212,00**	**0,00**
Other non-financial assets	5.3	557.069,48	0,00
Cash and cash equivalents	5.5	5.369.309,87	50.000,00
Current assets		**5.926.379,35**	**50.000,00**
Total assets		**8.865.591,35**	**50.000,00**
EQUITY AND LIABILITIES			
Share capital	5.6	234.375,00	50.000,00
Capital reserve	5.6	8.589.550,00	0,00
Retained earnings		-1.201.896,30	0,00
Total equity		**7.622.028,70**	**50.000,00**
Provisions	5.7	16.500,00	0,00
Trade payables	5.8	1.206.618,97	0,00
Other non-financial liabilities	5.9	20.443,68	0,00
Current liabilities		**1.243.562,65**	**0,00**
Total equity and liabilities		**8.865.591,35**	**50.000,00**

Table of Contents

Immunic AG Group

Consolidated financial statements as of 31 December 2016

Consolidated statement of changes in equity

For the year ended 31 December 2016

		Attributable to shareholders of Immunic AG			
EUR	Number of shares	Share capital	Capital reserve	Retained earnings	Total equity
Balance at 25 January 2016	**50.000**	**50.000,00**	**0,00**	**0,00**	**50.000,00**
Capital increase, cash-based	184.375	184.375,00	8.589.550,00	0,00	8.773.925,00
Income after income tax expense	0	0,00	0,00	-1.201.896,30	-1.201.896,30
Balance at 31 December 2016	**234.375**	**234.375,00**	**8.589.550,00**	**-1.201.896,30**	**7.622.028,70**

Table of Contents

Immunic AG Group

Consolidated financial statements as of 31 December 2016

Consolidated statement of cash flows

For the year ended 31 December 2016

EUR	Note	2016
Cash flows from operating activities		
Income after income tax expense		**-1.201.896,30**
Changes in		
Other non-financial assets	5.3	-557.069,48
Trade payables	5.8	206.618,97
Other non-financial liabilities	5.9	20.443,68
Provisions	5.7	16.500,00
Depreciation of property, plant and equipment	5.2	954,94
Amortization of intangible assets	5.1	66.667,00
Net cash flows from operating activities		**-1.447.781,19**
Cash flows from investing activities		
Disbursements for investments in property. plant and equipment	5.2	-6.833,94
Disbursements for investments in intangible assets	5.1	-2.000.000,00
Net cash flows from investing activities		**-2.006.833,94**
Cash flows from financing activities		
Proceeds from issue of share capital	5.6	184.375,00
Proceeds from share premium reserves	5.6	8.589.550,00
Net cash flows from financing activities		**8.773.925,00**
Net increase/decrease in cash and cash equivalents		**5.319.309,87**
Cash and cash equivalents at the beginning of the period		**50.000,00**
Cash and cash equivalents at the end of the period		**5.369.309,87**

Table of Contents

Immunic AG Group

Consolidated financial statements as of 31 December 2016

1 General information

Immunic AG (the Company or the Group) is incorporated under German law with its registered office in Planegg, Germany. Immunic AG is registered in the commercial register of the local court of Munich, Germany, under number HRB 223333. The Company s address is Am Klopferspitz 19, 82158 Planegg-Martinsried, Germany.

The company was established on 25 January 2016 and traded under the name Blitz 16-571 AG, based in München, Germany.

On 23 March 2016 the company name was changed to Immunic AG and the company headquarters moved to Planegg-Martinsried.

The Company is the parent company of Immunic Research GmbH, Halle (Saale), Germany. The subsidiary was founded on 2 August 2016.

The business purpose of the group is research, development, manufacturing, approval and marketing of drugs. Immunic AG is the specialist for selective oral drugs in immunology. As a clinical stage company, clinical proof-of-concepts for best-in-class therapies of chronic inflammatory and autoimmune diseases are being delivered.

2 Basis of preparation

The 2016 consolidated financial statements of the Company, comprising the statement of financial position, statement of profit or loss, statement of comprehensive income, statement of changes in equity, statement of cash flows and supplementary notes, were prepared according to the International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB), as well as with the supplementary commercial law regulations of Article 315e (3) of the German Commercial Code (HGB). The term IFRS also refers to all valid International Accounting Standards (IAS) and all interpretations and amendments of the International Financial Reporting Standards Interpretations Committee (IFRS IC) formerly International Financial Reporting Interpretations Committee (IFRIC) and the former Standing Interpretations Committee (SIC).

The consolidated financial statements were generally prepared on the basis of historical cost.

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction in the principal market at the measurement date under current market conditions (e.g. an exit price) regardless of whether that price is directly observable or estimated using another valuation technique.

Level 1: Quoted prices (unadjusted) in active markets for identical assets or liabilities that can be accessed at the measurement date.

Level 2: Inputs other than quoted prices from Level 1 that are directly observable or can be indirectly derived for the asset or liability.

Level 3: Unobservable inputs for the asset or liability.

As a rule, the Group classifies assets and liabilities as current if they are expected to be realized or settled within twelve months after the end of the reporting period. If assets and liabilities have both current and non-current components, they are broken down into these different components and recognized as current and non-current assets or liabilities according to the structure of the statement of financial position.

Table of Contents

Immunic AG Group

Consolidated financial statements as of 31 December 2016

The consolidated income statement is prepared in line with the function of expense method. The Company prepares and publishes the consolidated financial statements in euros (EUR). Deviations of up less than one unit (EUR, %) are mathematical rounding differences.

All IAS/IFRS (International Accounting Standards/International Financial Reporting Standards) whose application was mandatory for 31 December 2016 and all SIC/IFRIC (Standing Interpretations Committee/International Financial Reporting Interpretations Committee) interpretations effective as of 31 December 2016 were complied with.

3 Scope of consolidation

Fully consolidated entities

In 2016, the Company s scope of consolidation comprised the parent company and Immunic Research GmbH, Halle (Saale), Germany.

4 Notes to the consolidated statement of profit or loss

4.1 Other operating income

In 2016 a government grant of EUR 5.500,00 was recorded as other operating income.

4.2 Research and development expenses

EUR	**2016**
External services	622.194.21
Amortization on licences	66.667,00
Personnel expenses	33.070,86
Research and development expenses	**721.932,07**

Research & Development expenses include mainly external development expenses, amortization on licenses and internal personnel expenses for the two development programs IMU-838 and IMU-935. These two programs include orally available, small molecule inhibitors of DHODH (IMU-838 program) and inverse agonists of RORÎ³t (IMU-935 program) relevant to diseases such as ulcerative colitis, Crohn s disease and psoriasis. In 2016 Immunic acquired these

two development programs from 4SC AG and continued all research and development activities.

4.3 Administrative expenses

EUR	**2016**
Legal and consulting costs	343.777,26
Personnel expenses	102.635,28
Miscellaneous expenses	6.765,88
Insurance premiums, fees, duties	1.395,30
Amortization on licences	954,94
Rental and leasing	322,79
Adminstrative expenses	**455.851,45**

Table of Contents

Immunic AG Group

Consolidated financial statements as of 31 December 2016

4.4 Other operating expenses

EUR	2016
Advertising and travel expenses	20.781,79
Miscellaneous expenses	7.534,38
Rental and leasing	1.107,16
Maintenance and repairs	189,45
Other operating expenses	**29.612,78**

4.5 Income tax expense

Subject to the current financial performance and earnings situation, the group did not generate any taxable income and as such did not incur any income tax expense.

4.6 Earnings per share

		2016
Income after income tax expense attributable to owners of Immunic AG	EUR	-1.201.896
Weighted average number of ordinary shares to calculate earnings per share		
Basic	Number	112.587
Diluted	Number	112.587
Earnings per share		
Basis	EUR	-10,68
Diluted	EUR	-10,68

5 Notes to the statement of financial position

5.1 Intangible assets

EUR	Patents, concessions,	Total

	other rights	
Historical cost		
Balance as of 25 January 2016	0,00	0,00
Additions	3.000.000,00	3.000.000,00
Balance as of 31 December 2016	3.000.000,00	3.000.000,00
Cumulative amortization		
Balance as of 25 January 2016	0,00	0,00
Additions	-66.667,00	-66.667,00
Balance as of 31 December 2016	-66.667,00	-66.667,00
Net carrying amounts as of 31 December 2016	2.933.333,00	2.933.333,00

Major additions included the acquisition of the IP rights of IMU-838 and IMU-935 (formally named IMU-366). An initial payment was made in 2016 with the amount of EUR 2.000.000, whereof EUR 1.400.000 was allocated to IMU-838 and EUR 600.000 to IMU-935 (formally named IMU-366). After the successful completion of a clinical phase I a second payment of EUR 1.000.000,00 will be due. At inception of the agreement, reaching this condition was deemed to be highly probable, consequently this second tranche was capitalized in 2016 and thereof EUR 700.000,00 was allocated to IMU-838 and EUR 300.000,00 to IMU-935 (formally named IMU-366). The licenses are amortized over their useful life of 15 years.

Table of Contents

Immunic AG Group

Consolidated financial statements as of 31 December 2016

The amortization of EUR 66.667,00 was recognized in the consolidated statement of profit or loss under depreciation and amortization.

No impairment losses or reversals of impairment losses were recognized in the periods shown.

Currently the Group has no intangible assets with indefinite useful lives.

5.2 Property, plant and equipment

EUR	Property, plant and equipment	Total
Historical cost		
Balance as of 25 January 2016	0,00	0,00
Additions	6.833,94	6.833,94
Balance as of 31 December 2016	6.833,94	6.833,94
Cumulative depreciation		
Balance as of 25 January 2016	0,00	0,00
Additions	-954,94	-954,94
Balance as of 31 December 2016	-954,94	-954,94
Net carrying amounts as of 31 December 2016	5.879,00	5.879,00

Mayor addtions relate to computer hardware and office equipment. The useful lives range from 1 to 3 years.

The depreciation on property, plant and equipment of EUR 954,94 was recognized in the consolidated statement of profit or loss under depreciation and amortization.

No impairment losses or reversals of impairment losses were recognized on property, plant and equipment in the periods shown.

5.3 Other current non-financial assets

EUR

	31 December 2016
VAT receivables	541.521,52
Prepaid expenses	14.584,68
Miscellaneous	963,28
Other current non-financial assets	**557.069,48**

5.4 Deferred tax assets

In general, deferred tax assets for deductible temporary differences as well as tax loss carryforwards need to be recognized for companies, which will have sufficient taxable income in future periods in order to be able to utilize the tax benefits from temporary differences and loss carryforwards.

The total tax loss carryforwards of EUR 1.201.896,30 are not expected to be usable within a reasonable period. As such no deferred tax assets were recognized.

Table of Contents

Immunic AG Group

Consolidated financial statements as of 31 December 2016

5.5 Cash and cash equivalents

EUR	31 December 2016	25 January 2016
Bank balances	5.369.309,87	50.000,00
Cash and cash equivalents	**5.369.309,87**	**50.000,00**

5.6 Equity

Subscribed capital corresponds to the share capital according to Immunic AG s bye-laws and the entry in the commercial register and has been fully paid up. Share capital amounts to EUR 234.375,00 and is divided in 234.375 individual shares with a theoretical interest of EUR 1,00 each in the share capital. It comprises 50.000 individual shares, 13.541 preference shares (series A-1) and 170.834 preference shares (series A-2).

By resolution of the general meeting of 6 September 2016 the management board has been authorized to increase, with the supervisory board s approval, the share capital until 30 June 2021 one or several times by a total amount of EUR 117.187,00 against cash contribution, whereas the shareholders subscription right shall be excluded (authorized capital 2016/I).

In the business year 2016, an amount of EUR 8.589.550,00 was contributed to capital reserves.

5.7 Provisions

The following provisions are reported as other provisions in the statement of financial position:

EUR	Personnel costs	Accounting and Audit	Other	Total
25 January 2016		**0**		
Provisions added during the year	0,00	16.500,00	0,00	16.500,00
31 December 2016	**0,00**	**16.500,00**	**0,00**	**16.500,00**

5.8 Current trade payables

The trade payables of EUR 1.206.618,97 are exclusively to third parties and are secured to the extent customary in the industry by the suppliers retention of title.

5.9 Other current non-financial liabilities

EUR	31 December 2016	25 January 2016
Liabilities from wage and church taxes	17.243,68	0,00
Employee related liabilities	3.200,00	0,00
Other current non-financial liabilities	**20.443,68**	**0,00**

6 Notes on the consolidated statement of cash flows

Cash flows from investing activities include payments of EUR 2.000.000,00 for the acquisition of the licences IMU-838 and IMU-366.

Table of Contents

Immunic AG Group

Consolidated financial statements as of 31 December 2016

Immunic AG is entirely financed by equity. The group received cash from the issue of share capital of EUR 184.375,00 and share premium reserves of EUR 8.589.550,00.

7 Additional disclosures regarding financial instruments

Financial assets and liabilities can be broken down into the IAS 39 measurement categories as follows for the reporting period 2016:

			Measurement balance sheet according to IAS 39			Fairvalue	
EUR	Categories acc. to IAS 39	Carrying amount 31 December 2016	Amortised costs	Fair value through OCI	Fair value - through profit & loss	31 December 2016	Hierarchy
Financial assets assigned to categories							
Trade receivables	LaR	0	0	0	0	0	Level 2
Cash-in-hand and cash equivalents	LaR	5.369.310	5.369.310	0	0	5.369.310	Level 2
Financial liabilities assigned to categories							
Trade payables	FLAC	1.206.619	1.206.619	0	0	1.206.619	Level 2

The total of the carrying amounts of the financial instruments categories specified by IAS 39 are as follows:

	Carrying amount	
EUR	31 December 2016	25 January 2016
Summary per category		
Loans and receivables (LaR)	5.369.310	50.000
Financial liabilities at amorticed costs (FLAC)	1.206.619	0

8 Critical estimates and judgements

In the process of applying the accounting policies, Group management made judgments that significantly influence the amounts recognized in the consolidated financial statements. Accordingly, the preparation of the consolidated financial statements requires to a certain degree assumptions and estimates that affect the amount and disclosure of the assets and liabilities, income and expenses, and contingent liabilities recognized for the period under review. They relate primarily to the assessment of the recoverability of assets, the Group s uniform definition of economic useful lives for property, plant and equipment and the recognition and measurements provisions.

The assumptions and estimates are premised on the knowledge currently available. In particular, the expected future business performance was based on the circumstances at the time the consolidated financial statements were prepared and the future development of the environment deemed to be realistic. If these framework conditions develop differently than assumed and outside of the management s sphere of influence, the ensuing amounts can differ from the original estimates.

Immunic AG Group

Consolidated financial statements as of 31 December 2016

The key assumptions concerning the future and other key sources of estimation uncertainty at the end of the reporting period, due to which there is a significant risk that an adjustment to the carrying amounts of assets and liabilities will be necessary in upcoming reporting periods, are described below.

Definition of the useful lives of property, plant and equipment and of software and licenses

The Company bases its estimates of the useful lives of assets on past experience. However, accelerated technological progress means that, for example, faster depreciation and amortization may be necessary.

Classification as operating or finance lease

Lease classification depends primarily on estimates of the economic useful life of the leased asset, its fair value at the date of classification and assumptions or estimates of the discount rate to be used.

Valuation allowances on receivables

The management bases its estimates regarding the size of valuation allowances on the principle of individual measurement. In part, estimates of the requirement for specific valuation allowances are subjective estimates regarding the customers credit quality. They are therefore subject to an inherent assessment uncertainty.

Provisions

Provisions differ from other liabilities in terms of uncertainties regarding the timing or amount of expenditures required in the future. A provision must be recognized when the Company has a present obligation (legal or constructive) as a result of a past event, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation (see IAS 37.14).

There are considerable recognition and measurement uncertainties due to differing economic and legal assessments and the difficulties of determining the probability of occurrence.

9 Financial risk management

The management of the Group monitors and manages the financial risks associated with the Group s businesses by means of internal risk reporting, in which the Group analyses risks according to their scale and scope. These risks include credit risk, liquidity risk and market risk (foreign currency risk and interest rate risk).

In some cases, the Group may minimize the effects of these risks with derivative financial instruments. The use of financial derivatives is governed by guidelines set by the Group management, which contain requirements for the

management of currency, interest rate and default risks. In addition, basis rules are laid down for the use of derivative and non-derivative financial transactions and for the investment of excess liquidity. Compliance with the guidelines and risk limits is monitored continuously. The Group does not contract or trade financial instruments, including derivative financial instruments, for speculative purposes.

9.1 Credit risk

There are credit risks with regard in particular to trade receivables and other receivables. They are limited by limiting and constantly monitoring the individual receivables. There are no specific credit risks with regard to customers. Risks from deterioration in customers solvency and credit rating are already actively countered as part of acquisition management at the time of customer acquisition. There have been no major defaults in the past.

Table of Contents

Immunic AG Group

Consolidated financial statements as of 31 December 2016

Free liquidity is usually deposited in current accounts and term deposits at commercial banks. The maximum default risk of the recognized assets equals their carrying amount.

9.2 Liquidity risk

Prudent liquidity management includes holding a sufficient reserve of cash and cash equivalents.

The management of the Group monitors the liquidity of the operating companies and the Group as a whole with rolling cash flow projections.

The risk from contractually agreed cash flows for financial liabilities is set out below:

31 December 2016

EUR	Up to 1 year	1-5 years	More than 5 years	Total
Trade Payables	1.206.618,97	0,00	0,00	1.206.618,97
Total	**1.206.618,97**	**0,00**	**0,00**	**1.206.618,97**

25 January 2016

EUR	up to 1 year	1-5 years	More than 5 years	Total
Trade Payables	0,00	0,00	0,00	0,00
Total	**0,00**	**0,00**	**0,00**	**0,00**

9.3 Market risk

9.3.1 Foreign currency risks

The operating business is subject to minor currency risks due to purchases and sales arranged in currencies other than the euro.

9.3.2 Interest rate risk

Currently the company does not hold any interest bearing liabilities.

10 Capital risk management

The Group s objectives with regard to capital management are firstly to secure the business as a going concern in order to continue providing shareholders with returns and the other stakeholders with the deliverables owed, and secondly to maintain an optimum capital structure in order to reduce the cost of capital. As required, the Group maintains or changes the capital structure by adjusting the dividend payments to shareholders, making capital repayments to shareholders, or selling assets in order to repay liabilities.

	31 December 2016		**25 January 2016**	
EUR		**% of total equity and liabilities**		**% of total equity and liabilities**
Equity	7.622.028,70	86,3%	50.000,00	100,0%
Financial liabilities	1.206.618,97	13,7%	0,00	0,0%
Total equity and financial liabilities	**8.828.647,67**	**100,0%**	**50.000,00**	**100,0%**

Table of Contents

Immunic AG Group

Consolidated financial statements as of 31 December 2016

11 Contingent liabilities

In May 2016 the company entered into an Asset and Purchase Agreement (APA) with 4SC AG. This agreement includes payments (Tranches III and IV) that are contingent to certain future events. The arrangement requires the Company to pay an amount equal to 4.4% of the aggregated net sales for a certain period as defined in the agreement (Tranche III). Net Sales have not yet been generated and it remains highly uncertain whether a commercial sale of a product will be achieved in the near future. Tranche IV of this APA would require the Company to pay 4 % of any exit proceeds to 4SC. As of the date of issuance of the consolidated financial statements there is no evidence of an exit event such as described in the arrangement.

12 Financial commitments

The Group leases office space and office equipment. The underlying lease agreements have a lease term of between one and three years.

As of the end of the reporting period, the future minimum lease payment obligations due to non-cancellable operating leases were as follows:

EUR	31 December 2016	25 January 2016
Commitments for minimum lease payments in relation to non-cancellable operating leases are payable as follows:		
Up to 1 year	20.248,98	0,00
1-5 years	38.336,16	0,00
> 5 years	0,00	0,00
Total	**58.585,14**	**0,00**

13 Related party disclosures

According to IAS 24, the Group s related parties are

the parent company Immunic AG, Planegg, and its subsidiaries and material investments outside the Group;

other parties that can be influenced by or can influence the reporting entity, such as

- the members of the Company s management board and supervisory board;
- the members of Immunic AG s management board and supervisory board;
- interests held by members of the management board or supervisory board of the Company or Immunic AG in companies outside of the Group and the Immunic Group.

Balances and transactions between the Company and its subsidiaries that are related parties were eliminated in the process of consolidation and are not described in these notes. Details on transactions between the Group and other related parties are given below.

13.1 Business relations with Immunic AG and other subsidiaries and investments not belonging to the Group

Over the course of the reporting period, Group companies conducted the following transactions with related parties not covered by the scope of consolidation.

Table of Contents

Immunic AG Group

Consolidated financial statements as of 31 December 2016

In 2016 Life Care Partners GmbH, Nenzlingen/Basel, Switzerland, provided various consulting services to the company. Amounts of CHF 21.600,00 and CHF 8.647,24 were charged.

There were no balances outstanding from these transactions at the end of the reporting period.

13.2 Business relations with and payments to members of the management board and the supervisory board

In the period under review and in the comparative period, there were the following business relations with key management personnel of the Group, consisting of the members of the management board and the supervisory board:

The management board members remuneration in the reporting year is as follows:

EUR	Fixed remuneration	Variable remuneration (bonus)	Total
Dr. Manfred Gröppel	50.000,00	8.000,00	58.000,00
Dr. Rolf Andreas Mühler	56.333,33	8.733,33	65.066,66
Total	**106.333,33**	**16.733,33**	**123.066,66**

During the reporting year, the supervisory board s remuneration amounts as follows:

	Remuneration
Dr. Jörg Neermann	No Remuneration
Dr. Gerhard Ries	EUR 10.700,00

In the periods described, the Company neither granted nor received loans to or from employees in key positions.

14 Additional information according to HGB

The group did not employ any employees in 2016.

There were no auditor s fees in 2016.

15 Events after the end of the reporting period

As of 1 January 2017, Dr. Daniel Vitt was appointed as new Chief Executive Officer (CEO) and Dr. Hella Kohlhof as new Chief Scientific Officer (CSO) of Immunic AG. In addition, Dr. Thomas Taapken, was elected to the Supervisory Board of Immunic with effective date of 1 January 2017.

On 27 January 2017 Immunic AG entered in the commercial register an increase of the share capital by 41.666,00 EUR to 276.041,00 EUR. Furthermore another increase of the share capital by 86.986,00 EUR to 362.997,00 EUR was entered in the commercial register on 11 September 2017.

In 2017 an amount of 6.875.947,86 EUR was contributed into the company s capital reserve in connection with the Series A financing round.

In 2017 Vincent Ossipow, PhD, CFA, and Jan Van den Bossche joined Immunic s supervisory board.

Immunic AG Group

Consolidated financial statements as of 31 December 2016

In September 2017 260 stock options were granted to one member of the supervisory board of the Company.

In December 2017 Immunic announced that it has completed its clinical phase 1 program for IMU-838 exploring its pharmacokinetic properties, as well as its safety and tolerability. The program comprised a single ascending dose (SAD) and multiple ascending dose (MAD) study in healthy volunteers.

In January and February 2018, an amount of EUR 10.131.701,90 was contributed to capital reserves (Tranche II). Tranche III (EUR 5.789.739,24) was contributed to capital reserves in November / December 2018.

In May 2018 the Company granted 144 stock options to two key employees.

In November 2018 the Company signed an engagement letter with BMO Capital Markets Corp. (BMO) subject to which BMO acts as exclusive financial advisor in connection with a possible acquisition. In exchange BMO will receive a fee payable in respect of any transaction that is consummated and payable promptly on the closing thereof, equal to $1,000,000 (transaction fee). In addition under certain conditions the agreement includes a fee of 20% of any transaction-related break-up fee.

In November 2018 the company entered into an agreement with Daiichi Sankyo Co., Ltd. granting Immunic the exclusive right to license a group of compounds, designated by Immunic as IMU-856. The group of compounds uses a new pharmaceutical target based on animal models and promises an innovative way to a potentially disease-modifying treatment of inflammatory bowel disease (IBD). This development program also contains an orally available drug lead compound that is currently undergoing formal toxicology assessment in preparation of first human use. Immunic will be responsible for all further development as well as for all clinical development activities.

In December 2018 Immunic AG signed exit bonus agreements with all members of the management board. In case of an exit event each member of the management board has the right to receive 2,00% of the overall disposal proceeds, including contingent or deferred proceeds like earn-out payments, reduced by transaction costs incurred.

In December 2018 the Company agreed a term sheet on a potential reverse merger with a public US company.

Other than the above reported item, as of the issue date of these consolidated financial statements there were no material subsequent events that would require recognition or adjustment of the consolidated financial statements.

16 Summary of significant accounting policies

This note provides a list of the significant accounting policies adopted in the preparation of these consolidated financial statements. These policies have been consistently applied to all the years presented, unless otherwise stated. The financial statements are for the Group consisting of the Company and its subsidiaries.

16.1 Notes on the transition to IFRS

The consolidated financial statements of the Immunic Group were prepared in accordance with IFRS as issued by the IASB for the first time for the financial year ended 31 December 2016.

The key accounting policies presented below were applied uniformly to the consolidated financial statements as at 31 December 2016 (end of the reporting period) and the IFRS opening statement of financial position as at

Table of Contents

Immunic AG Group

Consolidated financial statements as of 31 December 2016

25 January 2016 (transition date). IFRS 1 First-time Adoption of International Financial Reporting Standards requires the full retrospective application of all standards effective as at 31 December 2016. Accordingly, for the first-time adoption of IFRS, the necessary adjustments to accounting methods must be made retrospectively as if Immunic AG had always prepared its accounts in accordance with IFRS.

The following tables summarize the effects of the transition of the consolidated financial statements from HGB to IFRS, that impacted equity in the opening statement of financial position as at 25 January 2016 as compared to equity as at 31 December 2016 and total comprehensive income for 2016.

EUR	Commentary	31 December 2016	25 January 2016
Equity in German GAAP		**7.654.787,24**	**50.000,00**
Adjustments subject to IFRS			
Intangible assets	1	-22.223,00	0,00
Consolidation scope	2	-10.535,54	0,00
Equity in IFRS		**7.622.028,70**	**50.000,00**

EUR	Commentary	31 December 2016	25 January 2016
Total comprehensive income in German GAAP		**-1.169.137,76**	**0,00**
Adjustments subject to IFRS			
Intangible assets	1	-22.223,00	0,00
Consolidation scope	2	-10.535,54	0,00
Total comprehensive income in IFRS		**-1.201.896,30**	**0,00**

1. Intangible assets:

The timing of capitalization of certain intangible assets differs between IFRS and German GAAP. While under IFRS the second tranche of the acquisition of the IP rights of IMU-838 and IMU-935 (formally named IMU-366) is already recorded in 2016, under German GAAP the capitalization is recorded in 2017, after the successful completion of a clinical phase I. For IFRS purposes, according to the specific guidance of IAS 38, achieving the successful completion of clinical phase I was deemed to be highly probable at signing of the agreement, consequently this second tranche

was capitalized in 2016 and thereof EUR 700.000,00 was allocated to IMU-838 and EUR 300.000,00 to IMU-935 (formally named IMU-366). German GAAP requires a different view. The impact on total comprehensive income and on equity amounts to EUR 22.223,00. It results from an earlier start of the linear amortization under IFRS. The licenses are amortized over their useful life of 15 years under both IFRS and German GAAP.

2. Consolidation scope:

IFRS 10 requires full consolidation of all subsidiaries under control of the Company. In 2016, the Company s scope of consolidation comprised the parent company and Immunic Research GmbH, Halle (Saale), Germany. For German GAAP purposes the subsidiary Immunic Research GmbH was not consolidated. The differences in comprehensive income and equity amounting to EUR 10.535,54 as disclosed in the above tables mainly derive from the negative results of the subsidiary.

Table of Contents

Immunic AG Group

Consolidated financial statements as of 31 December 2016

16.2 Effects of new accounting standards

The following new or amended standards and interpretations have already been published by the IASB, but have not yet taken effect. The Company has not applied the standards early.

New standards		Effective for annual periods beginning on or after:
IFRS 9	Financial instruments	1 January 2018
IFRS 15	Revenue from contracts with customers	1 January 2018
IFRS 16	Leases	1 January 2019
Amendments to IFRS 10 and IAS 28	Sale or contribution of assets between an investor and its associate or joint venture	Effective date postponed indefinitely
Amendments to IAS 12	Recognition of deferred tax assets for unrealized losses	1 January 2017
Amendments to IAS 7	Disclosure initiative	1 January 2017
Amendments to IFRS 2	Classification and measurement of share-based payment transactions	1 January 2018
Annual improvements to IFRS	2014 2016 cycle	1 January 2017 or 2018
Amendments to IAS 40	Transfers of investment property	1 January 2018
IFRIC 22	Foreign currency transactions and advance considerations	1 January 2018
IFRIC 23	Uncertainty over income tax treatments	1 January 2019

IFRS 9 Financial Instruments

IFRS 9 Financial Instruments includes requirements for recognition, measurement and derecognition of financial assets and liabilities. The IASB issued the final version of the standard on 24 July 2014 in connection with the completion of the various phases of its extensive project on financial instruments. The previous recognition of financial instruments under IAS 39 Financial Instruments: Recognition and Measurement can now be fully superseded by recognition under IFRS 9. The current version of IFRS 9 supersedes all previous versions. The new standard is effective for annual period beginning on or after 1 January 2018. Early application is permitted. The Group will apply the standard for the first time for the financial year beginning on 1 January 2018 using the modified retrospective method.

In a group-wide project, the Group currently analyses the expected effects on the consolidated financial statements. The analysis is based on the Group s financial assets and financial liabilities as of 31 December 2016 and of the facts and circumstances existing at this date.

Classification and measurement

Based on the current project status, the Group does not expect a significant impact on its balance sheet or equity on applying the classification and measurement requirements of IFRS 9. It expects to continue measuring at fair value all financial assets currently held at fair value. As there are currently no material available-for-sale assets with gains and losses recorded in OCI, there will be no material effect from the new classification and measurement requirements.

Immunic AG Group

Consolidated financial statements as of 31 December 2016

Loans as well as trade receivables are allocated to a business model when they arise. Usually these instruments are held to collect contractual cash flows and are expected to give rise to cash flows representing solely payments of principal and interest. The Group analyzed the contractual cash flow characteristics of those instruments and concluded that they meet the criteria for amortized cost measurement under IFRS 9.

The Group will not apply the fair value option to eliminate an accounting mismatch.

Impairment

IFRS 9 requires the Immunic Group to record expected credit losses on all of its debt securities, loans and trade receivables, either on a 12-month or lifetime basis. Immunic Group will apply the simplified approach and record lifetime expected losses on all trade receivables.

Hedge accounting

As of the reporting date the Group has no hedging instruments and therefore there will be no effect from the transition to IFRS 9.

IFRS 15 Revenue from Contracts with Customers

In May 2014, the IASB published IFRS 15, Revenue from Contracts with Customers .

The objective of IFRS 15 is to aggregate the revenue recognition rules included in various standards and interpretations and define basic principles applicable to all industries and all types of sales transactions with a five-step revenue recognition model.

IFRS 15 determines the timing and the amount of revenue recognition. Revenue recognized should reflect the transfer of the promised goods or services to the customer at the amount corresponding to the consideration that the enterprise expects to receive in exchange for those goods or services.

In addition, the new standard requires the disclosure of a number of quantitative and qualitative information.

IFRS 15 replaces IAS 11, construction contracts , and IAS 18, revenue , and the related interpretations. The standard is effective for annual periods beginning on or after 1 January 2018; early adoption is permitted. The Group will apply the standard for the first time for the financial year beginning on 1 January 2018 using the modified retrospective method and will apply the standard retrospectively only to contracts that are not completed contracts on the date of initial application.

Due to the business model and current clinical stages of the developments by the company, the sales cycle and accordingly revenue recognition is not yet of the essence to the consolidated financial statements and as such, no

effect is expected by means of the transition to IFRS 15.

IFRS 16 Leases

In January 2016, the IASB adopted IFRS 16 Leases , the new standard for lease accounting. IFRS 16 will replace IAS 17 and the associated interpretations.

In accordance with IFRS 16, all leases are accounted for by the lessee in such a way that the right of use associated with the lease is recognized as an asset (so-called right of use asset) on the asset side and the corresponding discounted lease liability on the liability side.

Immunic AG Group

Consolidated financial statements as of 31 December 2016

Relief is available for leased assets of low value and for leases with short terms. The lease payments for these leases can be recognized as an expense on a straight-line basis (or another systematic basis for distribution) over the term of the lease.

Under the previous IAS 17, a distinction was made between on-balance-sheet finance leases and off-balance-sheet operating leases. This distinction between two different types of leases will no longer apply for the lessee when IFRS 16 comes into force. If a contract is classified as a lease, it falls within the scope of this Standard and must therefore be accounted for. Otherwise, it is a service contract that affects expenses.

In the case of the lessor, however, the provisions of the new standard are similar to the previous provisions of IAS 17. The criteria of IAS 17 were adopted for classification in accordance with IFRS 16. IFRS 16 also contains a number of additional regulations on the disclosure and disclosures in the notes as well as on sale and leaseback transactions.

The modified retrospective approach is applied for the transition to the new regulation. As a result, the new standard will only be applied to the most recent reporting period presented in the financial statements for 2019. The effects of the application of IFRS 16 on the consolidated financial statements are currently being examined. In principle, an extension of the balance sheet is assumed due to the scope of operating lease agreements.

Amendments to IFRS 10 and IAS 28 Sale or Contribution of Assets between an Investor and its Associate or Joint Venture

The amendments address a conflict between the requirements of IAS 28 Investments in Associates and Joint Ventures and IFRS 10 Consolidated Financial Statements. They clarify that in a transaction involving an associate or joint venture, the extent of gain or loss recognition depends on whether the assets sold or contributed constitute a business according to IFRS 3. The IASB has now deferred the effective date of the amendments indefinitely.

The Group holds no investments in associates or joint ventures. The amendments have no effect on the consolidated financial statements.

Amendments to IAS 12 Recognition of deferred tax assets for unrealized losses

The changes include the following clarifications:

Unrealized losses on assets carried at fair value (for example, fixed debt instruments), whose taxable value corresponds to the cost of acquisition, lead to deductible temporary differences. This applies regardless of whether the company plans to sell the instrument, hold it to maturity, or a combination of both.

In case that the applicable tax law restricts the offsetting of tax losses (e.g. if losses from the sale of securities may only be offset against corresponding capital gains), the assessment whether deferred tax assets for deductible temporary differences has to be accounted need to be taken into consideration separately for the deductible temporary

differences each of the same kind.

In estimating future taxable profits, it may be assumed on certain assumptions that an asset can be realized above its book value. On the other hand, tax deductions from the reversal of deductible temporary differences are to be excluded.

The management does not expect the amendments to IAS 12 to have a material impact on the consolidated financial statements.

Table of Contents

Immunic AG Group

Consolidated financial statements as of 31 December 2016

Amendments to IAS 7 - Statement of Cash Flows

The amendments pursue the objective that entities provide disclosures that enable users of financial statements to evaluate changes in liabilities arising from financing activities. The amendment will require further notes disclosure in the Group financial statements.

Amendments to IFRS 2 - Classification and Measurement of Share-Based Payment Transactions

The amendments involve a number of individual issues pertaining to the accounting of cash-settled share-based payment transactions. IFRS 2 now contains requirements on determining the fair value of obligations resulting from share-based payment transactions. The Company does not expect material impacts due to the amendments of IFRS 2 on its consolidated financial statements.

Annual Improvements to IFRSs (2014-2016)

Three IFRSs were amended in the Annual Improvements to IFRSs (2014-2016). In IFRS 12, it was clarified that disclosures pursuant to IFRS 12 generally also apply to an entity s interests in subsidiaries, joint ventures and associated companies that are classified as held for sale in accordance with IFRS 5, with the exception of the disclosures outlined in IFRS 12.B10-B16 (Financial Information). In IAS 28, it was clarified that the election to measure an investment in an associated company or a joint venture held by an entity that is a venture capital organization or other qualifying entity, can be exercised on an investment-by-investment basis. The short-term exemptions in IFRS 1, Appendix E (IFRS 1.E3-E7) for first-time IFRS users were deleted. The Company does not expect material impacts due to the above mentioned amendments on its consolidated financial statements.

Supplementary information on IFRIC 22 - Foreign Currency Transactions and Advance Consideration

IFRIC 22 addresses an application question for IAS 21 - The Effects of Changes in Foreign Exchange Rates. It clarifies the point in time for determining the exchange rate used to translate foreign-currency transactions containing advance payments that have been made or received. The date of the initial recognition of an asset or liability resulting from advance consideration is essential for determining the exchange rate for the underlying asset, income or expense. The Company does not expect impacts due to the above clarifications on its consolidated financial statements.

16.3 Significant accounting and valuation principles

The consolidated financial statements are based on uniform accounting and valuation principles. The annual financial statements of the companies which are included in the consolidated financial statements are prepared as of the reporting date of the consolidated financial statements.

The main accounting and valuation principles are explained below.

16.3.1 Principles of consolidation

Subsidiaries are companies controlled by the Company. The Group gains control when it exercises the power of disposition over the associated company, is exposed to variable returns from the investment, and has the ability to use its power over the associated company to influence the amount of the associated companies return.

The assessment of control is reviewed by Immunic AG if there are indications that one or more of the aforementioned criteria have changed.

Table of Contents

Immunic AG Group

Consolidated financial statements as of 31 December 2016

The results of the subsidiaries acquired during the year are recognized in the consolidated profit and loss statement and in the other consolidated income as of the actual date of acquisition or until the actual date of disposal.

The **acquisition of a company** is accounted for using the purchase method (acquisition method). The consideration transferred in the context of a company acquisition corresponds with the fair value of the assets given, the equity instruments issued and the liabilities incurred or assumed at the time of the transaction. In addition, they include the fair values of any recognized assets or liabilities resulting from a contingent consideration agreement. All costs associated with the acquisition are recognized as an expense when incurred. Assets, liabilities and contingent liabilities identifiable as parts of a business combination are initially measured for the initial consolidation at fair value at the date of acquisition.

Goodwill is recognized and tested for impairment at least once a year. It is calculated as the excess of the cost of the acquisition, the amount of the non-controlling interest of the acquiree and the fair value of any previously held equity interest at the acquisition date over the interest group of the net assets measured at fair value. If the acquisition costs are lower than the fair value of the net assets of the acquired subsidiary, the difference will be recognized directly in the consolidated income statement following a re-examination.

Balances and transactions with consolidated subsidiaries as well as income and expenses resulting therefrom are eliminated in full for the purpose of preparing the consolidated financial statements.

For temporary differences from consolidation, the tax deferrals required under IAS 12 were recognized.

16.3.2 Currency translation

The consolidated financial statements were prepared on the basis of the functional currency concept. Functional currency is the primary currency of the economic environment in which the Company operates. It is the Euro, which is also the presentation currency of the consolidated financial statements.

16.3.3 Other intangible assets

Acquired intangible assets, including software and licenses and internally generated intangible assets are recognized at cost.

To determine the recognition of internally generated intangible assets research and development expenses are to be separated. Expenditure on research activities undertaken with the prospect of gaining new scientific or technical knowledge and understanding is recognized as an expense in the period it is incurred.

The recognition of internally generated intangible assets is based on the cumulative fulfillment of IAS 38 recognition criteria: The technical feasibility of the development project and a future economic benefit from the development project must be demonstrated and the company must have the intent and the ability to complete the intangible asset, to use it or sell it. Furthermore, adequate technical, financial and other resources must be available to complete and it must be possible to reliably determine the attributable expenditure for the intangible asset during its development.

The recognized costs cover the directly attributable costs for the development process and development-related overheads. According to IFRS, borrowing costs that are directly attributable to the acquisition, construction or production of a so called qualifying asset should be recognized as part of the cost. In the reporting and comparative period, no qualified assets were acquired or generated for which it would have been necessary to recognize borrowing costs

Table of Contents

Immunic AG Group

Consolidated financial statements as of 31 December 2016

If a useful life can be determined, then these intangible assets are amortized on a straight-line basis over the useful life. The following useful lives are used for depreciation:

	Useful life in years
Software	3
Purchased concessions, industrial rights and similar rights and assets	3 to 15

Currently the Group has no intangible assets with indefinite useful lives.

16.3.4 Property, plant and equipment

Property, plant and equipment are recognized at cost less accumulated depreciation if the asset is depreciable, and impairments.

The cost of an item of property, plant and equipment covers all costs directly attributable to the acquisition of the asset. Repairs and maintenance are recognized in the consolidated income statement as an expense in the reporting period in which they are incurred. Initially internally generated assets are recognized with the directly attributable production costs and production-related overheads.

Depreciation is recognized on a straight-line basis over the estimated useful life in the consolidated income statement.

The following useful lives are mainly used:

	Useful life in years
Operating and office equipment	1 to 3

Assets leased under finance leases are depreciated over the shorter of the lease term and its useful life. Land is not depreciated.

To the extent there are material elements of property, plant and equipment contain components with considerably deviating using lives, these are recognized separately and depreciated over the respective useful life.

According to IFRS, borrowing costs that are directly attributable to the acquisition, construction or production of a so called qualifying asset should be recognized as part of cost. In the reporting and comparative period, no qualified assets were acquired or generated for which it would have been necessary to recognize borrowing costs.

The residual values and economic useful lives are checked to the end of every reporting period and adjusted where appropriate. The economic useful lives are based on estimates and are based to a large extent on experience in relation to historical use and technical development.

Gain and loss arising from disposals of assets shall be determined as the difference between the net disposal proceeds and the carrying amount of the asset and shall be recognized in profit or loss.

If there are indications of an impairment loss and if the carrying amount of property, plant and equipment exceeds the recoverable amount impairment losses are recognized. Recoverable amount is the higher of an

Immunic AG Group

Consolidated financial statements as of 31 December 2016

asset s fair value less costs to sell and its value in use. If the reason for impairment taken no longer applies, a reversal to historical cost is undertaken.

16.3.5 Impairment

For assets with a specific useful life, in accordance with IAS 36 a test is made at the end of the reporting period if there are indications of material impairment e.g. specific events or market developments which indicate a possible loss in value. In the reporting and previous period, there were no indications of impairment for depreciable intangible assets and property, plant and equipment.

Intangible assets with indefinite useful lives and internally generated assets under construction must be tested for impairment at the end of each reporting period. In the reporting period and in 2016, there were no intangible assets with indefinite useful lives.

In the case of indications for impairment or during the obligatory annual impairment test for intangible assets with indefinite useful life, the recoverable amount of the asset is determined. The recoverable amount of an asset is the higher of the fair value of the asset or cash-generating unit (CGU) less costs to sell and its value in use. Recoverable amount is determined for an individual asset, unless the asset does not generate cash inflows that are largely independent of those from other assets or groups of assets. In the latter case, the recoverable amount is to be determined on the basis of a CGU to which assets or a group of assets are allocated until an aggregation of assets that generates largely independent cash inflows is established. This is also the case for goodwill. Goodwill resulting from a business combination is allocated from the date of acquisition to the CGU or group of cash-generating units that is expected to benefit from the synergies of the combination and at which level the goodwill is monitored for internal management purposes.

To determine the value in use the expected cash flows are discounted to the present value on the basis of a pre-tax discount rate reflecting the current market assessments in respect to the interest effect and the specific risks of the asset. In determining the value in use, account is taken of the current and future expected income level as well as technological, economic and general development trends on the basis of approved financial budgets. To determine the fair value less costs to sell, account is taken of any recent market transactions.

If the carrying amount exceeds the recoverable amount of the asset or the CGU, an impairment loss is recognized in profit and loss at the level that the carrying amount exceeds the recoverable amount.

For goodwill if the impairment requirement is higher that the carrying amount of the goodwill of the CGU, then the goodwill is first fully amortized and the remaining impairment requirement distributed to the other assets of the CGU. In doing so for goodwill in the impairment test account is taken of the necessary impairment on individual assets of the CGU.

Reversals on the new recoverable amount are made, except for goodwill, when the reasons for the impairment in previous year no longer apply. The upper limits for reversals are the depreciated historical costs which would have resulted if no impairments have been recognized in previous years. In the reporting and comparative period, there were no reversals on intangible assets or property, plant and equipment.

16.3.6 Recognition of leases

A lease is an agreement whereby the lessor conveys to the lessee in return for a payment or series of payments the right to use an asset for an agreed period of time. The companies of the Company conclude contracts only as lessee.

Table of Contents

Immunic AG Group

Consolidated financial statements as of 31 December 2016

Leases are classified as a finance lease if the leasing conditions transfer substantially all the risks and rewards incidental to lessor. Assets which are rented or leased and whose economic ownership is at the respective group company (finance lease), at the beginning of the contract the future leasing payments are recognized at the lower of fair value or present value. Correspondingly liabilities at the same level are recognized in the statement of financial position against the lessor under financial liabilities . In measuring present value the interest rate underlying the agreement is used and if not available the marginal refinancing rate. The depreciation of these assets and the reversal of the liability take place across the contract period. If the useful life of the asset is shorter than the contract period, then this is relevant for determining the depreciation period. While the leasing asset is subject to straight-line depreciation over the term of the leasing agreement, the relevant leasing liability is amortized on a progressive basis using the effective interest rate method. As a result, during the period of the leasing contract there is a difference between the leasing obligation and the carrying amount of the leasing object.

Lease payments under an operating lease are recognized as an expense in the income statement on a straight-line basis over the lease term unless another systematic basis is more representative of the time pattern of the user s benefit.

Operate leasing contracts existing particularly for buildings, office space, technical equipment and machinery, office equipment as well as vehicles and hardware.

The Group does not enter into lease agreements as lessor.

16.3.7 Cash and cash equivalents

Cash and cash equivalents are cash, immediately disposable bank assets and short-term deposits at banks, all of which have a duration below three months. Utilized bank overdrafts are recognized under current finance liabilities.

16.3.8 Financial instruments

In accordance with IAS 32, a financial instrument is defined as any contract that gives rise to a financial asset of one entity and a financial liability or equity instrument of another entity. According to IFRS, they can include non-derivative financial instruments, such as trade receivables and payables, as well as derivative financial instruments.

Upon initial recognition, financial assets and financial liabilities are designated at fair value, which generally corresponds to origination cost. Transaction costs which are directly attributable to the acquisition or issue of the financial instrument are only then recognized at carrying amount if the corresponding financial instrument is not measured at fair value with changes in fair value recognized in profit or loss. The subsequent measurement depends on the categorization of the financial instruments.

a) Financial assets

A financial asset is any asset that is in particular:

Trade and other receivables,

Other financial assets and

Cash and cash equivalents

Table of Contents

Immunic AG Group

Consolidated financial statements as of 31 December 2016

Financial assets with a remaining term of more than twelve months are presented separately as non-current financial assets.

The Company divides financial assets into one of the following categories, with the held to maturity financial assets category not used by the Group due to lack of relevance.

Assets at fair value through profit or loss

Assets at fair value through profit or loss are financial assets held for trading purposes. A financial asset is assigned to this category if it is acquired with the intention to sell in the short term. Derivatives also are included in this category if they do not qualify as hedges. Any gain or loss resulting from the fair value measurement is recognized in profit or loss. The recognized net gain or loss includes any dividends and interest on the financial asset. As of 31 December 2016 there were no assets at fair value through profit and loss.

Available-for-sale financial assets

Available for sale financial assets are non-derivative financial assets that are designated to this category or cannot be assigned to any of the other categories. This category includes equity investments and debt securities. After initial measurement, Available for sale financial assets are subsequently measured at fair value with unrealized gains or losses recognized in OCI and credited to the Available for sale reserve until the investment is derecognized, at which time, the cumulative gain or loss is recognized in other operating income, or the investment is determined to be impaired, when the cumulative loss is reclassified from the available for sale reserve to the statement of profit or loss in finance costs. Interest earned whilst holding available for sale financial assets is reported as interest income using the effective interest rate method.

Loans and receivables

Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. They are measured at amortized cost less impairment losses using the effective interest rate method. Group loans and receivables are recognized in the consolidated statement of financial position under Trade and other receivables , Other financial assets and Cash and cash equivalents .

b) Impairment of financial assets

Financial assets, with the exception of the financial assets measured at fair value through profit or loss, are tested for possible impairment indicators at each reporting date. Financial assets are considered impaired if, as a result of one or more events occurring after the initial recognition of the asset, there is an objective indication that the expected future cash flows of the financial assets have changed negatively.

In the case of equity investments classified as available for sale, a substantial or persistent reduction in the fair value of the assets below their acquisition costs is an objective indication of an impairment.

For all other financial assets, there may be objective indications for an impairment in the following:

significant financial difficulties for the issuer or counterparty,

a breach of contract such as a default or default of interest or redemption payments,

an increased likelihood that the borrower will enter into insolvency or any other restructuring, or

Immunic AG Group

Consolidated financial statements as of 31 December 2016

the disappearance of an active market for this financial asset caused by financial difficulties.

For some categories of financial assets, e.g. trade receivables for which there is no impairment on a one-off basis, an impairment test is carried out on a portfolio basis. An objective indication of an impairment of a portfolio of receivables may be the Group s past experience of past payments, an increase in the frequency of defaults within the portfolio, and observable changes in the national or local economic environment to which defaults of receivables are linked.

In the case of financial assets measured at amortized cost, the impairment loss corresponds to the difference between the carrying amount of the asset and the present value of the expected future cash flows at the original effective interest rate of the financial asset.

Impairment results in a direct reduction in the carrying value of all financial assets affected, except for trade receivables whose carrying value is reduced by an impairment account. If a value-adjusted trade receivable is assessed as uncollectible, consumption is made against the impairment account. Subsequent inputs to amounts already recognized as an allowance are also posted against the impairment account. Changes in the carrying value of the impairment account are recognized in profit or loss through the consolidated statement of profit or loss.

If the amount of the impairment loss of a financial asset valued at amortized cost in one of the following financial years decreases and if this reduction can be attributed objectively to an event occurring after the impairment was recognized, the previously recorded impairment is reversed through the consolidated statement of profit or loss. However, a write-up may not exceed the amount that would have resulted if the cost of the asset had been amortized without impairment.

c) Financial liabilities

The financial liabilities primarily include:

Trade payables

Other financial liabilities (especially liabilities to banks)

Trade payables

At initial recognition, trade payables are measured at nominal value which corresponds to the fair value. As there are only current trade payables, the effective interest method is not used in any subsequent measurement.

Other financial liabilities

At initial recognition other financial liabilities are measured at fair value less transaction costs incurred.

Financial liabilities from original financial instruments are measured at amortized cost using the effective interest rate method. Financial assets and financial liabilities from derivative financial instruments, for which there is no hedge accounting, are measured at fair value through profit or loss.

The liability is classified as current because, at the end of the reporting period date, the entity does not have an unconditional right to defer its settlement to at least twelve months after the balance sheet date.

Table of Contents

Immunic AG Group

Consolidated financial statements as of 31 December 2016

Financial instruments are derecognized from the balance sheet, if the rights for payments are expired or transferred and the Group transfers materially all risks and rewards relating to ownership.

Netting of financial assets and liabilities is only done, if netting amount is legally enforceable at that point in time. Due to lack of fulfilling this requirement, the Group does not net financial assets and liabilities.

The fair-value option in accordance to IAS 39 is not used.

d) Derivative financial instruments

Currently, the Group does not hold any derivative financial instruments and it does not apply hedge accounting.

16.3.9 Other provisions

A provision is recognized when the Group has a present obligation (legal or constructive) as a result of a past event, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation (see IAS 37.14).

The provision amount is recognized at the expected settlement amount. Non-current provisions are discounted on the basis or the relevant market interest rates to the end of the reporting period.

16.3.10 Recognition of income and expense

Sales are recognized as revenue at the fair value of the consideration received or receivable, less any returns, trade discounts and volume rebates.

Sale of goods

Revenue from the sale of goods is recognized if based on the agreement with the respective customer (1) the significant risks and rewards associated with ownership of the goods and products were transferred to the buyer, (2) it is sufficiently probable that the economic benefits associated with the transaction will flow to the enterprise, (3) the costs incurred and the returns in respect of the transaction can be measured reliably, (4) the enterprise does not retain effective control over the goods and (5) the amount of revenue can be measured reliably. Depending on the respective customer contract and the respective order, the time of revenue recognition regularly is the same at the time of delivery or acceptance. Revenue is recognized when the Company acts as principal and not as agent in the respective transaction.

Other income and expenses

Interest is recognized on an accrual base as income or expense using the effective interest rate method. Interest income and expense arise mainly from cash at banks, loans, lease and factoring agreements as well Dividend income is recognized at the date that the right to receive the payment arises.

Expenses are recognized when the service is used or as of the date on which they occur.

Research costs are recognized through profit or loss in the period in which they are incurred. Expenses for development are recognized in profit and loss when incurred, unless they are development costs which must be recognized as intangible assets as a result of the relevant conditions according to IAS 38 being present, which in the current reporting period is not the case

Table of Contents

Immunic AG Group

Consolidated financial statements as of 31 December 2016

16.3.11 Income taxes

The income tax expense represents the sum of current tax expense and deferred tax.

Current taxes

The current tax expense is calculated on the basis of the taxable income for the year. The taxable income differs from the net income from the consolidated statement of comprehensive income due to expenses and income which are taxable or tax-deductible in later years or not at all taxable or tax-deductible. The group s current tax liabilities are calculated on the basis of the currently applicable tax rates or the tax rates which will be applicable shortly with respect to the balance sheet date.

Deferred taxes

Deferred taxes are calculated in accordance with IAS 12 on the basis of the internationally customary balance sheet liability method (liability method). Thereafter, deferred taxes are formed for all temporary differences between the tax bases and the valuations in the consolidated balance sheet as well as for tax loss carryforwards.

Deferred taxes on these determined differences are always recognized when they result in deferred tax liabilities. Deferred tax assets are only taken into account if it is probable that the corresponding tax benefits will be realized. Deferred tax assets and liabilities are also recognized on temporary differences arising in connection with company acquisitions, with the exception of temporary differences on goodwill, if these are not taken into account for tax purposes.

Deferred taxes are calculated using the tax rates for future years insofar as they have already been legally stipulated or the legislative process has essentially been completed. Changes in deferred taxes in the balance sheet generally result in deferred tax expenses or income. If certain events which result in a change of deferred taxes are posted directly to equity, the change of the deferred taxes is also recognized directly in equity.

16.3.12 Government grants

Government grants, including non-monetary grants at fair value, shall not be recognized until there is reasonable assurance that:

a) the enterprise will comply with the conditions attaching to them and

b) the grants will be received.

Grants are recognized as income over the periods in which the related costs where there are intended to compensate are incurred. Grants received as compensation for expenses incurred are recognized through profit in loss in the period in which they are incurred.

In 2016 a government grant of EUR 5.500,00 was recorded as other income. The granted amount was earmarked to cover consulting costs.

Table of Contents

Immunic AG Group

Consolidated financial statements as of 31 December 2016

Approval of the financial statements

The financial statements were adopted by the Executive Board and approved for publication on 21 December 2018.

Munich, 21 December 2018

Dr. Daniel Vitt	Dr. Manfred Gröppel
Dr. Rolf Andreas Mühler	Dr. Hella Kohlhoff

Table of Contents

Immunic AG Group

Interim consolidated financial statements as of 30 September 2018

Consolidated statement of profit or loss and comprehensive income

For the period ended 30 September 2018

EUR	Note	1 January - 30 September 2018	1 January - 30 September 2017
Other operating income		28.748,80	2.522,65
Research and development expenses	5	-4.610.918,04	-4.813.513,87
Administration	6	-964.987,32	-637.348,96
Other operating expenses		-266.044,82	-158.092,19
Interest and similar expenses		-772,67	-3.157,41
Income before income tax expense		**-5.813.974,05**	**-5.609.589,78**
Income tax expense		-796,97	0,00
Income after income tax expense		**-5.814.770,02**	**-5.609.589,78**
Thereof attributable to owners of Immunic AG		-5.814.770,02	-5.609.589,78
Earnings per share in EUR (basic)		-16,02	-53,10
Earnings per share in EUR (diluted)		-16,02	-53,10

EUR	Note	1 January - 30 September 2018	1 January - 30 September 2017
Income after income tax expense		**-5.814.770,02**	**-5.609.589,78**
Currency translation differences		1.392,91	0,00
Total comprehensive income		**-5.813.377,11**	**-5.609.589,78**

Table of Contents

Immunic AG Group

Interim consolidated financial statements as of 30 September 2018

Consolidated statement of financial position

As of 30 September 2018

EUR	Note	30 September 2018	31 December 2017
ASSETS			
Intangible assets		2.584.295,28	2.734.788,00
Property, plant and equipment		20.967,07	19.692,00
Non-current assets		**2.605.262,35**	**2.754.480,00**
Trade and other receivables	11	0,00	47.600,00
Other non-financial assets		128.214,55	362.821,67
Cash and cash equivalents	8	8.636.715,02	3.759.814,91
Current assets		**8.764.929,57**	**4.170.236,58**
Total assets		**11.370.191,92**	**6.924.716,58**
EQUITY AND LIABILITIES			
Share capital	9	362.997,00	362.997,00
Capital reserve	9	25.597.199,76	15.465.497,86
Other reserves	9	1.392,91	0,00
Retained earnings	9	-15.100.635,33	-9.285.865,31
Total equity		**10.860.954,34**	**6.542.629,55**
Provisions		14.100,00	51.250,00
Trade payables	11	374.257,26	211.314,12
Other non-financial liabilities		120.880,32	119.522,91
Current liabilities		**509.237,58**	**382.087,03**
Total equity and liabilities		**11.370.191,92**	**6.924.716,58**

Table of Contents

Immunic AG Group

Interim consolidated financial statements as of 30 September 2018

Consolidated statement of changes in equity

For the period ended 30 September 2018

		Attributable to shareholders of Immunic AG				
EUR	Number of shares	Share capital	Capital reserve	Retained earnings	Foreign currency translation	Total equity
Balance at 31 December 2016	**234.375**	**234.375,00**	**8.589.550,00**	**-1.201.896,30**	**0,00**	**7.622.028,70**
Capital increase, cash based	128.622	128.622,00	6.875.947,86	0,00	0,00	7.004.569,86
Income after income tax expense	0	0,00	0,00	-5.609.589,78	0,00	-5.609.589,78
Balance at 30 September 2017	**362.997**	**362.997,00**	**15.465.497,86**	**-6.811.486,08**	**0,00**	**9.017.008,78**
Balance at 31 December 2017	**362.997**	**362.997,00**	**15.465.497,86**	**-9.285.865,31**	**0,00**	**6.542.629,55**
Capital increase, cash based	0	0,00	10.131.701,90	0,00	0,00	10.131.701,90
Income after income tax expense	0	0,00	0,00	-5.814.770,02	0,00	-5.814.770,02
Other comprehensive income	0	0,00	0,00	0,00	1.392,91	1.392,91
Balance at 30 September 2018	**362.997**	**362.997,00**	**25.597.199,76**	**-15.100.635,33**	**1.392,91**	**10.860.954,34**

Table of Contents

Immunic AG Group

Interim consolidated financial statements as of 30 September 2018

Consolidated statement of cash flows

For the period ended 30 September 2018

EUR	Note	1 January - 30 September 2018	1 January - 30 September 2017
Cash flows from operating activities			
Income after income tax expense		-5.814.770,02	-5.609.589,78
Changes in			
Trade receivables	11	47.600,00	0,00
Other non-financial assets		234.607,12	-142.935,21
Trade payables	11	162.943.14	215.910,79
Other non-financial liabilities		1.357,41	34.967,65
Provisions		-37.150,00	14.600,00
Depreciation of property, plant and equipment		7.960,21	7.388,28
Amortization of intangible assets		150.492,72	150.172,90
Curreny translation		1.395,52	0,00
Net interest expense		772,67	3.157,41
Net cash flows from operating activities		**-5.244.791,23**	**-5.326.327.96**
Cash flows from investing activities			
Disbursements for investments in property, plant and equipment		-9.235,28	-22.479,73
Disbursements for investments in intangible assets		0,00	-951,16
Net cash flows from investing activities		**-9.235,28**	**-23.430,89**
Cash flows from financing activities			
Proceeds from issue of share capital		0,00	128.622,00
Proceeds from capital increases		10.131.701,90	6.875.947,86
Interest paid		-772,67	-3.157,41
Net cash flows from financing activities		**10.130.929,23**	**7.001.412,45**
Effect of currency translation on cash and cash equivalents		**-2,61**	**0,00**

Net increase/decrease in cash and cash equivalents	**4.876.900,11**	**1.651.653,60**
Cash and cash equivalents at the beginning of the period	**3.759.814,91**	**5.369.309,87**
Cash and cash equivalents at the end of the period	**8.636.715,02**	**7.020.963,47**

Table of Contents

Immunic AG Group

Interim consolidated financial statements as of 30 September 2018

Notes to the interim consolidated financial statements (continued)

1 General information

Immunic AG (the Company or the Group) is incorporated under German law with its registered office in Planegg, Germany. Immunic AG is registered in the commercial register of the local court of Munich, Germany, under number HRB 223333. The Company s address is Am Klopferspitz 19, 82158 Planegg-Martinsried, Germany.

The company was established on 25 January 2016 and traded under the name Blitz 16-571 AG, based in München, Germany.

On 23 March 2016 the company name was changed to Immunic AG and the company headquarters moved to Planegg-Martinsried.

The Company is the parent company of Immunic Research GmbH, Halle (Saale), Germany. The subsidiary was founded on 2 August 2016.

The business activities of the subsidiary Immunic Australia Pty Ltd., Collingwood, Australia, started in 2018.

The business purpose of the group is research, development, manufacturing, approval and marketing of drugs. Immunic AG is the specialist for selective oral drugs in immunology. As a clinical stage company, clinical proof-of-concepts for best-in-class therapies of chronic inflammatory and autoimmune diseases are being delivered.

2 Basis of preparation of the interim financial statements

These interim consolidated financial statements were prepared according to the provisions of the International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB), as well as with the supplementary commercial law regulations of Article 315e (3) of the German Commercial Code (HGB) on the reporting date and the interpretations of the International Financial Reporting Interpretations Committee (IFRIC).

The interim consolidated financial statements of Immunic AG, for the reporting period ending on 30 September 2018 were prepared in condensed form in compliance with International Accounting Standard (IAS) 34 Interim Financial Reporting . They do not contain all the information required for complete consolidated financial statements.

In these interim consolidated financial statements, the accounting policies are generally based on the same accounting policies that were used for the preparation of the 2017 IFRS consolidated financial statements, where they are

explained in detail. These policies were applied consistently to these interim consolidated financial statements with the exception of the IFRS amendments and new requirements whose application is mandatory from the 2018 financial year. For information on the expected effects of IFRS 16 Leases, which is to be applied for the first time for the financial year beginning on 1 January 2019, please refer to the commentary in the notes to the consolidated financial statements of the 2017 annual report. At the current time, there has been no significant change in the ongoing implementation project compared to the assessment there.

When preparing financial statements in line with IFRS, the management must use its discretion to make estimates and assumptions. These estimates and judgements are fundamentally unchanged compared to the matters described in Immunic AG s consolidated financial statements as of 31 December 2017.

Table of Contents

Immunic AG Group

Interim consolidated financial statements as of 30 September 2018

Notes to the interim consolidated financial statements (continued)

Differences can arise due to the commercial rounding of amounts (in EUR) and percentages.

The initial application of IFRS 9 and IFRS 15 since 1 January 2018 has resulted in no significant transitional effects for the Group in the areas described below, which have led to a change in accounting policy. The Group has applied the modified, retrospective approach for the transition to IFRS 9 and IFRS 15.

IFRS 9

Classification and measurement of financial assets

In the classification and measurement of financial assets, IFRS 9 does not result in material changes. Trade receivables are still allocated to the hold business model and measured at amortized cost. The categorization under Loans and Receivables (LaR) under IAS 39 is now presented under the category Amortized cost following IFRS 9.

Cash and cash equivalents previously categorized LaR according to IAS 39 are reclassified to the category Amortized cost under IFRS 9.

The categorization of trade payables remains unchanged within the category Financial Liabilities at Amortized Cost (FLAC) under IFRS 9.

Impairment model for financial assets

IFRS 9.5.5 introduces a new impairment model. This applies to financial assets measured at amortized cost. The previous model (incurred loss model) determined impairment on the basis of incurred losses, while the new model (expected loss model) is based on expected credit losses.

The Group applies the simplified approach according to IFRS 9 in order to measure expect credit losses; accordingly, full lifetime expected credit losses are recognized for all trade receivables.

To measure the expected losses, financial assets were grouped on the basis of shared credit risk characteristics or individual default information was consulted. In any case, the calculation is based on current default probabilities as of the respective reporting date.

For the Group, this did not result in any transitional effect as of 1 January 2018.

IFRS 15

The Group has applied IFRS 15 Revenue from Contracts with Customers since 1 January 2018. In compliance with the transitional provisions of IFRS 15, the Group applied the new requirements retrospectively in a modified manner. This did not result in any adjustments to amounts recognized in the financial statements.

3 Scope of consolidation

3.1 Fully Consolidated entities

The Company s scope of consolidation comprised the parent company and Immunic Research GmbH, Halle (Saale), Germany, as well as Immunic Australia Pty Ltd., Collingwood, Australia.

Table of Contents

Immunic AG Group

Interim consolidated financial statements as of 30 September 2018

Notes to the interim consolidated financial statements (continued)

3.2 Changes in the scope of consolidation

Immunic Australia Pty Ltd., Collingwood, Australia, was established on 28 November 2017. The registration in the Australian Business Register went effective on 1 January 2018 and also the subsidiaries business activities started in 2018. Full consolidation of the entity commenced on 1 January 2018.

4 Seasonal influences on the business

In general, seasonal influences during the financial year can lead to fluctuations in revenue and the resulting earnings. However, the group´s statement of profit or loss was not impacted by seasonal influences.

5 Research and development expenses

EUR	1 January - 30 September 2018	1 January - 30 September 2017
Research and development expenses	4.095.390,14	4.360.882,03
Personnel expenses	365.472,41	302.631,84
Amortization of intangible assets	150.055,49	150.000,00
Adminstrative expenses	**4.610.918,04**	**4.813.513,87**

Research & Development include mainly external development expenses and internal personnel expenses for the two development programs IMU-838 and IMU-935. These two programs include orally available, small molecule inhibitors of DHODH (IMU-838 program) and inverse agonists of RORyt (IMU-935 program) relevant to diseases such as ulcerative colitis, Crohn s disease and psoriasis. In the beginning of 2018 Immunic started the clinical phase 2 trial (CALDOSE-1) in patients with ulcerative colitis (UC). In addition, Immunic is preparing a second Phase 2 trial (CALDOSE-2) in patients with Crohn s disease. Furthermore the preclinical development of program IMU-935 was driven forward.

6 Administrative expenses

EUR	**1 January - 30 September 2018**	**1 January - 30 September 2017**
Legal and consulting costs	489.552,62	200.326,31
Personnel expenses	380.912,79	371.581,00
Remuneration supervisory board	42.257,00	29.450,00
Miscellaneous expenses	32.431,22	22.074,27
Insurance premiums, fees, duties	10.533,41	5.204,20
Depreciation of property, plant and equipment	7.960,21	7.388,28
Rental and leasing	902,84	1.152,00
Amortization of intangible assets	437,23	172,90
Adminitrative expenses	**964.987,32**	**637.348,96**

Table of Contents

Immunic AG Group

Interim consolidated financial statements as of 30 September 2018

Notes to the interim consolidated financial statements (continued)

7 Earnings per share

		1 January - 30 September 2018	1 January - 30 September 2017
Income after income tax expense attributable to owners of Immunic AG	EUR	-5.814.770	-5.609.590
Weighted average number of ordinary shares to calculate earnings per share			
Basic	Number	362.997	105.641
Diluted	Number	362.997	105.641
Earnings per share			
Basis	EUR	-16,02	-53,10
Diluted	EUR	-16,02	-53,10

8 Cash and cash equivalents

EUR	30 September 2018	31 December 2017
Cash in hand	1.515,69	500,91
Bank balances	8.635.199,33	3.759.314,00
Cash and cash equivalents	**8.636.715,02**	**3.759.814,91**

9 Equity

Subscribed capital corresponds to the share capital according to Immunic AG´s bye-laws and the entry in the commercial register and has been fully paid up. Share capital amounts to EUR 362.997,00 and is divided in 362.997 individual shares with a theoretical interest of EUR 1,00 each in the share capital. It comprises 50.000 individual shares, 13.541 preference shares (series A-1) and 299.456 preference shares (series A-2).

By resolution of the general meeting of 6 September 2016 the management board has been authorized to increase, with the supervisory board´s approval, the share capital until 30 June 2021 one or several times by a total amount of EUR 117.187,00 against cash contribution, whereas the shareholders subscription right shall be excluded (authorized capital 2016/I).

This was entered in the commercial register on 10 October 2016. Due to the aforementioned authorization, the share capital was increased for EUR 41.666,00 to EUR 276.041,00. Such increase was entered in the commercial register on 27 January 2017. After a partial exploitation, authorized capital 2016/I still amounts to EUR 75.521,00. The general meeting of 25 August 2017 decided on the increase of share capital by EUR 86.956,00 and a revision of the bye-laws. The following has been changed: Share Capital. The capital increase was entered in the commercial register on 11 September 2017.

In the first three quarters of 2018, an amount of EUR 10.131.701,90 was contributed to capital reserves. When preparing the consolidated interim financial statements as of 30 September 2018, a loss carryforward in the amount of EUR 9.265.158,31 was included in the net loss by taking into account the partial appropriation of profits. The development of equity is presented in the consolidated statement on the change of equity.

Table of Contents

Immunic AG Group

Interim consolidated financial statements as of 30 September 2018

Notes to the interim consolidated financial statements (continued)

10 Notes on the consolidated statement of cash flows

Immunic AG is entirely financed by equity. The group received cash from the issue of share capital amounting to EUR 10.131.701,90 (period ending on 30 September 2017: EUR 6.875.947,86).

11 Financial instruments

The following table shows the fair value according to IFRS 13 for the financial instruments and it includes the disclosure and reconciliation of carrying amounts and fair values as required by IFRS 7.25-30 as well as the presentation by class and category in accordance with IFRS 7.8.:

	Category according to		Carrying amount			Fair value			
EUR	IFRS 9	IAS 39	30 September 2018	01 January 2018	31 December 2017	30 September 2018	01 January 2018	31 December 2017	Hierarchy per IFRS 13
Financial assets									
Trade recivables	Amortized cost	LaR	0	47.600	47.600	0	47.600	47.600	Level 2
Cash and cash equivalents	Amortized cost	LaR	8.636.715	3.759.815	3.759.815	8.636.715	3.759.815	3.759.815	Level 2
Financial liabilities									
Trade payables	FLAC	FLAC	374.257	211.314	211.314	374.257	211.314	211.314	Level 2

	Carrying amount	
EUR	30 September 2018	01 January 2018
Summary per category		
Financial assets at amortized cost (Amortized cost)	8.636.715	3.807.415
Financial liabilities at amorticed cost (FLAC)	374.257	211.314

The fair value of financial instruments is determined according to current parameters such as interest or exchange rates at the end of the reporting period and recognized, customary measurement models. For further details, especially on allocation to fair value levels, please refer to the comments in the notes to the consolidated financial statements as

of 31 December 2017. Any reclassifications to and from the levels of the measurement hierarchy are recognized at the end of the respective reporting period.

For current financial instruments, the carrying amount is the best estimated value of fair value.

12 Share-based payments

Virtual Stock Options Program for the Members of the Supervisory Board

Under two virtual stock options programs, the company grants virtual stock options to members of the supervisory board and to key employees and advisors. The programs shall incentivize the beneficiaries to dedicate their working capabilities in the best manner possible to the benefit of the Company.

Under the virtual stock options program for the members of the supervisory board (the VSOP SB), the Company may grant virtual stock options of the Company to members of the Company s supervisory board for the time period of their office as member of the Company s supervisory board. The shareholders meeting has

Table of Contents

Immunic AG Group

Interim consolidated financial statements as of 30 September 2018

Notes to the interim consolidated financial statements (continued)

passed the VSOP SB with a total volume of 1.840 virtual stock options, corresponding to approximately 0,5% of the Company s issued share capital at the time of the decision, of which 260 were granted by 30 September 2018.

Under the virtual stock options program for key employees and advisors (the VSOP), the Company may grant virtual stock options of the Company to certain key employees and advisors. With the approval of the supervisory board, the management board shall resolve on how many virtual stock options shall actually be granted and how they shall be allocated to the respective beneficiaries. The Company intends to issue a total of up to 1.840 virtual stock options of which 144 virtual stock options were granted by 30 September 2018.

Further terms and conditions of both programs, the VSOP SB and the VSOP, are substantially similar. The following information is therefore shown aggregated for both programs.

The virtual stock options vest if and when an exit event occurs, i.e. a direct initial public offering has taken place, or an indirect initial public offering has taken place, or a trade sale has been consummated, or a disposal of the Company s assets been consummated, or another financially equivalent circumstance has been consummated where the previous shareholders of the Company are put in the same position as in the aforementioned cases and a realization has occurred. An exit event results in the exercise of the virtual stock options. The virtual stock options granted will not vest if the exit event does not occur. The VSOP SB as well as the VSOP are cash-settled virtual stock option programs. The Company accounts for both programs as cash-settled stock-based payment transactions.

The liability for the virtual stock option programs is measured, initially and at the end of each reporting period until settled, at the fair value of the virtual stock options by applying an option pricing model, taking into account the terms and conditions on which the virtual stock options were granted; in particular, their characteristic as zero-cost options with a determined exercise price of nil.

Expense and liability arising from stock-based payment transactions

The expense recognized for employee services received during the period as well as the respective liability are shown in the following tables:

EUR	**1 January - 30 September 2018**	**1 January - 30 September 2017**
Expense arising from cash-settled stock-based payment transactions	53.086	29.900

EUR	30 September 2018	30 September 2017
Liability arising from cash-settled stock-based payment transactions	82.986	29.900

There were no cancellations or modifications to the awards in 2018 or 2017.

Table of Contents

Immunic AG Group

Interim consolidated financial statements as of 30 September 2018

Notes to the interim consolidated financial statements (continued)

Movements during the period

The following table illustrates the number and exercise prices of, and movements in, virtual stock options during the period:

	30 September 2018		30 September 2017	
	Number of virtual stock options	Exercise price (EUR)	Number of virtual stock options	Exercise price (EUR)
Outstanding at 1 January	260	0,00	0	
Granted during the period	144	0,00	260	0,00
Forfeited during the period	0		0	
Exercised during the period	0		0	
Expired during the period	0		0	
Outstanding at 30 September	404	0,00	260	0,00
Exercisable at 30 September	0		0	

The fair value of each virtual stock option granted during the period was EUR 205,41.

The exercise price of virtual stock options outstanding at the end of the period was 0,00 EUR. The remaining contractual life for the virtual stock options was not limited.

Measurement

The fair value of the Company s stock of EUR 205,41 was determined based on valuation estimates by third parties.

As the fair value of the zero-cost option granted in course of the VSOP SB and the VSOP equals the fair value of the underlying stock (assuming no dividends), further inputs usually used to determine the fair values of stock options were not collected.

13 Contingent liabilities

In May 2016 the company entered into an Asset and Purchase Agreement (APA) with 4SC AG. This agreement includes payments (Tranches III and IV) that are contingent to certain events to occur. The arrangement requires the

Company to pay an amount equal to 4.4% of the aggregated net sales for a certain period as defined in the agreement (Tranche III). Net Sales have not yet been generated and it remains highly uncertain whether a commercial sale of a product will be achieved in the near future. Tranche IV of this APA would require the Company to pay 4 % of any exit proceeds to 4SC. As of the date of issuance of the consolidated financial statements there is no evidence of an exit event such as described in the arrangement.

14 Related party disclosures

According to IAS 24, the Group s related parties are

the parent company Immunic AG, Planegg, and its subsidiaries and material investments outside the Group;

Table of Contents

Immunic AG Group

Interim consolidated financial statements as of 30 September 2018

Notes to the interim consolidated financial statements (continued)

other parties that can be influenced by or can influence the reporting entity, such as

the members of the Company s management board and supervisory board;

the members of Immunic AG s management board and supervisory board;

interests held by members of the management board or supervisory board of the Company or Immunic AG in companies outside of the Group and the Immunic Group.

Balances and transactions between the Company and its subsidiaries that are related parties were eliminated in the process of consolidation and are not described in these notes. Major details on transactions between the Group and other related parties are given below.

The management board received a total remuneration of EUR 480.750,00 in the period ending on 30 September 2018 (period ending on 30 September 2017: EUR 465.750,00).

The supervisory board received a total remuneration of EUR 18.750,00 in the period ending on 30 September 2018 (period ending on 30 September 2017: 29.450,00 EUR).

15 Events after the end of the reporting period

In November 2018 the Company signed an engagement letter with BMO Capital Markets Corp. (BMO) subject to which BMO acts as exclusive financial advisor in connection with a possible acquisition. In exchange BMO will receives a fee payable in respect of any transaction that is consummated and payable promptly on the closing thereof, equal to $1,000,000 (transaction fee). In addition under certain conditions the agreement includes a fee of 20% of any transaction-related break-up fee.

In November 2018 the company entered into an agreement with Daiichi Sankyo Co., Ltd. granting Immunic the exclusive right to license a group of compounds, designated by Immunic as IMU-856. The group of compounds uses a new pharmaceutical target based on animal models and promises an innovative way to a potentially disease-modifying treatment of inflammatory bowel disease (IBD). This development program also contains an orally available drug lead compound that is currently undergoing formal toxicology assessment in preparation of first human use. Immunic will be responsible for all further development as well as for all clinical development activities.

In December 2018 Immunic AG signed exit bonus agreements with all members of the management board. In case of an exit event each member of the management board has the right to receive 2,00% of the overall disposal proceeds, including contingent or deferred proceeds like earn-out payments, reduced by transaction costs incurred.

In December 2018 the Company agreed a term sheet on a potential reverse merger with a public US company.

Table of Contents

Approval of the financial statements

The financial statements were adopted by the Executive Board and approved for publication on 21 December 2018.

Munich, 21 December 2018

Dr. Daniel Vitt

Dr. Manfred Gröppel

Dr. Rolf Andreas Mühler

Dr. Hella Kohlhoff

Table of Contents

Annex A

EXCHANGE AGREEMENT

among

VITAL THERAPIES, INC.,

IMMUNIC AG and

the Shareholders of IMMUNIC AG

Dated as of January 6, 2019

Table of Contents

Table of Contents

		Page
EXCHANGE AGREEMENT		A-1
ARTICLE 1.	DESCRIPTION OF TRANSACTION	A-2
1.1	The Transaction	A-2
1.2	Closing; Effective Time	A-2
1.3	Certificate of Incorporation and Bylaws; Directors and Officers	A-2
1.4	Exchange of Shares.	A-2
1.5	Calculation of Net Cash.	A-3
1.6	Closing of Immunic s Transfer Books	A-4
1.7	Book Entry Transfer.	A-4
1.8	Waiver of Rights	A-5
1.9	Immunic Consent, Approval and Waiver	A-5
1.10	Vital s Acceptance of the Immunic Shares	A-5
1.11	Further Action	A-5
1.12	Tax Consequences	A-5
1.13	Certificates.	A-5
ARTICLE 2.	REPRESENTATIONS AND WARRANTIES OF IMMUNIC AND THE HOLDERS	A-6
2.1	Subsidiaries; Due Organization; Organizational Documents.	A-6
2.2	Authority; Vote Required.	A-7
2.3	Non-Contravention; Consents.	A-7
2.4	Capitalization.	A-8
2.5	Financial Statements.	A-8
2.6	Absence of Changes	A-9
2.7	Title to Assets	A-9
2.8	Real Property; Leaseholds	A-9
2.9	Intellectual Property.	A-9
2.10	Material Contracts.	A-11
2.11	Undisclosed Liabilities	A-12
2.12	Compliance; Permits; Restrictions.	A-13
2.13	Tax Matters.	A-14
2.14	Employee and Labor Matters; Benefit Plans.	A-16
2.15	Environmental Matters	A-17
2.16	Insurance.	A-17
2.17	Legal Proceedings; Orders.	A-18
2.18	Inapplicability of Anti-takeover Statutes	A-18
2.19	No Immunic Financial Advisor	A-18
2.20	Immunic Subscription Agreement	A-18
2.21	Disclosure	A-19
2.22	Organization and Authority of Holders.	A-19
2.23	Title to Shares.	A-19
2.24	Holder Conflicts	A-19

2.25	No Holder Violation or Litigation	A-20
2.26	No Brokers for Holders	A-20
2.27	Holder Subscription Agreement.	A-20
2.28	Purchase Entirely for Own Account	A-21
2.29	Disclosure of Information	A-21
2.30	Restricted Securities	A-21

Table of Contents

		Page
2.31	Legends	A-22
2.32	Foreign Investors	A-22
2.33	No General Solicitation	A-22
2.34	Residence	A-22
2.35	No Other Representations or Warranties	A-22
ARTICLE 3.	REPRESENTATIONS AND WARRANTIES OF VITAL	A-22
3.1	Subsidiaries; Due Organization; Organizational Documents.	A-23
3.2	Authority; Vote Required.	A-23
3.3	Non-Contravention; Consents.	A-23
3.4	Capitalization.	A-24
3.5	SEC Filings; Financial Statements.	A-25
3.6	Absence of Changes	A-26
3.7	Undisclosed Liabilities	A-26
3.8	Compliance; Permits; Restrictions.	A-27
3.9	Tax Matters.	A-27
3.10	Employee and Labor Matters; Benefit Plans.	A-28
3.11	Environmental Matters	A-32
3.12	Insurance.	A-33
3.13	Legal Proceedings; Orders.	A-33
3.14	Real Property; Leasehold	A-33
3.15	Intellectual Property	A-34
3.16	Material Contracts.	A-34
3.17	Shell Company Status	A-35
3.18	No Financial Advisor	A-35
3.19	Anti-Corruption Matters	A-35
3.20	Disclosure	A-35
3.21	Valid Issuance	A-35
3.22	Opinion of Financial Advisor	A-35
ARTICLE 4.	CERTAIN COVENANTS OF THE PARTIES	A-35
4.1	Access and Investigation	A-35
4.2	Operation of Vital s Business.	A-36
4.3	Operation of Immunic s Business.	A-38
4.4	Notification of Certain Matters.	A-39
4.5	No Solicitation.	A-40
4.6	Market Stand-Off Agreement	A-41
ARTICLE 5.	ADDITIONAL AGREEMENTS OF THE PARTIES	A-42
5.1	Registration Statement; Proxy Statement / Prospectus.	A-42
5.2	Immunic Shareholder Consent.	A-43
5.3	Vital Stockholders Meeting.	A-44
5.4	Regulatory Approvals.	A-45
5.5	Vital Employee and Benefits Matters.	A-46
5.6	Immunic Exit Bonus Shares	A-47
5.7	Indemnification of Officers and Directors.	A-47
5.8	Additional Agreements	A-48

5.9 Disclosure A-48

Table of Contents

		Page
5.10	Listing	A-49
5.11	Tax Matters.	A-49
5.12	Legends	A-49
5.13	Directors and Officers	A-49
5.14	Section 16 Matters	A-49
5.15	Takeover Statutes	A-50
5.16	Termination of Certain Agreements and Rights	A-50
ARTICLE 6.	CONDITIONS PRECEDENT TO OBLIGATIONS OF EACH PARTY	A-50
6.1	Effectiveness of Registration Statement	A-50
6.2	No Restraints	A-50
6.3	Stockholder Approval	A-50
6.4	Regulatory Matters	A-50
6.5	Listing	A-50
ARTICLE 7.	ADDITIONAL CONDITIONS PRECEDENT TO OBLIGATIONS OF VITAL	A-51
7.1	Accuracy of Representations	A-51
7.2	Performance of Covenants	A-51
7.3	No Immunic Material Adverse Effect	A-51
7.4	Lock-Ups from Immunic Officers and Directors.	A-51
7.5	Termination of Investor Agreements	A-51
7.6	Immunic Pre-Closing Financing	A-51
7.7	Documents	A-51
ARTICLE 8.	ADDITIONAL CONDITIONS PRECEDENT TO OBLIGATIONS OF IMMUNIC	A-52
8.1	Accuracy of Representations	A-52
8.2	Performance of Covenants	A-52
8.3	No Vital Material Adverse Effect	A-52
8.4	Board of Directors and Officers	A-52
8.5	Lock-Ups from Vital Officers and Directors.	A-52
8.6	Amendment to Certificate of Incorporation	A-52
8.7	Filing of Form 10-K	A-52
8.8	Documents	A-52
ARTICLE 9.	TERMINATION	A-53
9.1	Termination	A-53
9.2	Effect of Termination	A-54
9.3	Expenses; Termination Fees.	A-54
9.4	Effect of Payment of Termination Fees and Expenses.	A-56
ARTICLE 10.	MISCELLANEOUS PROVISIONS	A-56
10.1	Non-Survival of Representations and Warranties	A-56
10.2	Amendment	A-56
10.3	Waiver.	A-57
10.4	Entire Agreement; Counterparts; Exchanges by Facsimile	A-57
10.5	Applicable Law; Jurisdiction	A-57
10.6	Attorneys Fees	A-57

10.7 Assignability; No Third Party Beneficiaries A-57

Table of Contents

		Page
10.8	Notices	A-58
10.9	Severability	A-59
10.10	Other Remedies; Specific Performance	A-59
10.11	Construction.	A-59

Schedules:

Vital Disclosure Schedule

Immunic Disclosure Schedule

Holder Disclosure Schedule

Schedule 1.5	Net Cash Schedule Example
Schedule 5.5(a)	Terminated Vital Associate Payments
Schedule 5.5(b)	Vital Benefit Plans
Schedule 5.13	Vital Officers and Directors at the Effective Time
Schedule 5.16	Investor Agreements

Exhibits:

Exhibit A	Holders and Immunic Shares
Exhibit B	Definitions
Exhibit C	Investment and Subscription Agreement

Table of Contents

EXCHANGE AGREEMENT

THIS EXCHANGE AGREEMENT (this ***Agreement***) is made and entered into as of January 6, 2019, by and among **VITAL THERAPIES, INC.,** a Delaware corporation (***Vital***), **IMMUNIC AG**, a stock corporation formed under the laws of Germany and registered with the commercial register (*Handelsregister*) of the local court of Munich (the ***Commercial Register***) under number HRB 223333 (***Immunic***), and the shareholders of Immunic listed on Exhibit A hereto (the ***Holders***). Certain capitalized terms used in this Agreement are defined in Exhibit B.

RECITALS

A. Through this Agreement, Vital, Immunic and the Holders intend to effect a transaction whereby the Holders contribute, transfer, assign and deliver all of the Immunic Shares owned by them, and all of their rights with respect to such Immunic Shares, to Vital in exchange for shares of Vital Common Stock, with the result of Immunic becoming a wholly-owned subsidiary of Vital (the ***Transaction***).

B. The Vital Board of Directors (i) has determined that the Transaction is fair to, and in the best interests of, Vital and the Vital Stockholders, (ii) has deemed advisable and approved this Agreement, the Transaction, the Vital Stockholder Matters, and the other actions contemplated by this Agreement; and (iii) has determined to recommend that the Vital Stockholders vote to approve the Vital Stockholder Matters.

C. Immediately prior to the execution and delivery of this Agreement, certain of the Holders have executed an Investment and Subscription Agreement substantially in the form attached hereto as Exhibit C (the ***Subscription Agreement***) among Immunic and the Holders named therein (with Vital named therein as a third-party beneficiary of the obligations of such Holders thereto), pursuant to which such Holders have agreed prior to the Closing in connection with the Immunic Pre-Closing Financing to purchase the number of common shares (*Stammaktien*) (***Immunic Common Shares***) set forth therein (the ***Immunic Pre-Closing Financing Shares***).

D. The Holders (i) own all of the Immunic Common Shares outstanding as of the date hereof, which have been issued in accordance with the Articles of Association (*Satzung*) of Immunic (the ***Immunic Articles***), (ii) own all preferred shares (*Vorzugsaktien*) issued by Immunic in the form of Series A-1 and Series A-2 preferred shares (the ***Immunic Preferred Shares*** and, with the Immunic Common Shares, the ***Immunic Shares***), (iii) will own immediately prior to the Closing, all of the Immunic Exit Bonus Shares, and (iv) will own, upon the consummation of the Immunic Pre-Closing Financing, all of the Immunic Common Shares (including all rights with respect to the Immunic Pre-Closing Financing Shares and the Immunic Exit Bonus Shares) and all of the Immunic Preferred Shares, in each case which are issued and outstanding as of immediately prior to the Effective Time.

E. Immunic has entered into a consolidated shareholders agreement, dated as of January 6, 2019, with the Holders, which set forth the principles of the legal relationship between all shareholders of Immunic (the **New CSA**). The New CSA replaced in full any and all prior shareholders agreements among all or individual shareholders relating to their participation in Immunic, including the shareholders agreement dated August 10, 2016 as amended by (i) the amendment to the investment and shareholders agreements dated December 21, 2016, (ii) the accession and amendment agreement dated August 25, 2017 and (iii) the third accession and amendment agreement dated December 14, 2018.

F. Under Section 6 para. 1 of the Immunic Articles, legal ownership of the Immunic Shares may only be validly transferred upon approval at an Immunic shareholders meeting which is also subject to the approval of a special resolution of the holders of Immunic Preferred Shares as declared by its management board (*Vorstand*). Immunic s management board and its supervisory board (*Aufsichtsrat*) (collectively, the ***Immunic Board of Directors***): (i) has

determined that the Transaction is advisable and fair to, and in the best interests of, Immunic

Table of Contents

and the Holders, (ii) has deemed advisable and approved the other actions contemplated by this Agreement, (iii) has duly authorized and approved by all necessary corporate action the execution, delivery and performance of this Agreement and the Contemplated Transactions, and (iv) has deemed advisable and approved, through a resolution, the transfer of the Immunic Shares as part of the Transaction and as otherwise contemplated by this Agreement.

AGREEMENT

The parties to this Agreement, intending to be legally bound, agree as follows:

ARTICLE 1. DESCRIPTION OF TRANSACTION

1.1 The Transaction. Upon the terms and subject to the conditions set forth in this Agreement, at the Effective Time each Holder hereby irrevocably contributes, transfers by assignment pursuant to Section 398, 413 of the German Civil Code (BGB), and delivers to Vital (i) all of the Immunic Shares held by such Holder as legal and beneficial owner (*rechtlicher und wirtschaftlicher Eigentümer*) as set forth in the column entitled Immunic AG Shares (all classes) opposite such Holder s name on Exhibit A hereto, that are of the class of security set forth in the columns entitled Immunic AG Class of Shares ; and (ii) any and all rights associated with such Immunic Shares held by such Holder, in exchange for that number of shares of Vital Common Stock as determined in accordance with this Agreement.

1.2 Closing; Effective Time. Unless this Agreement is earlier terminated pursuant to the provisions of Section 9.1, and subject to the satisfaction or waiver of the conditions set forth in Article 6, Article 7 and Article 8, the closing of the Transaction (the ***Closing***) shall take place at the offices of Pillsbury Winthrop Shaw Pittman LLP, 12255 El Camino Real, Suite 300, San Diego, California, as promptly as practicable (but in no event later than the second Business Day following the satisfaction or waiver of the last to be satisfied or waived of the conditions set forth in Article 6, Article 7 and Article 8, other than those conditions that by their nature are to be satisfied at the Closing, but subject to the satisfaction or waiver of each of such conditions), or at such other time, date and place as Vital and Immunic may mutually agree in writing. The date on which the Closing actually takes place is referred to as the ***Closing Date***. Subject to the provisions of this Agreement, the Closing of the Transaction shall be effective at 10:00 a.m., Eastern time, on the Closing Date (which time is referred to as the ***Effective Time***).

1.3 Certificate of Incorporation and Bylaws; Directors and Officers. At the Effective Time:

(a) the certificate of incorporation of Vital shall be the certificate of incorporation of Vital immediately prior to the Effective Time, until thereafter amended as provided by the DGCL and such certificate of incorporation; *provided*, *however*, that (i) at the Effective Time, Vital shall file an amendment to its certificate of incorporation, to the extent approved by the holders of Vital Common Stock as contemplated by Section 5.3, to effect the Reverse Split and (ii) promptly following the Effective Time, Vital shall file an amendment to its certificate of incorporation, to the extent approved by the holders of Vital Common Stock as contemplated by Section 5.3, to change the name of Vital (to Immunic, Inc.);

(b) the bylaws of Vital shall be the bylaws of Vital immediately prior to the Effective Time; *provided, however*, that effective at the Effective Time, Vital shall amend its bylaws to replace all references to Vital s name with Immunic; and

(c) the directors and officers of Vital, each to hold office in accordance with the certificate of incorporation and bylaws of Vital, shall be as set forth in Section 5.13.

1.4 Exchange of Shares.

(a) At the Effective Time, and without any further action on the part of Vital, Immunic or any Holder, each Immunic Common Share and each Immunic Preferred Share, if any, outstanding immediately prior to the

Table of Contents

Effective Time (after giving effect to the Immunic Pre-Closing Financing and the Immunic Exit Bonus Agreements, and thus including all Immunic Pre-Closing Financing Shares and the Immunic Exit Bonus Shares) shall be exchanged solely for the right to receive the number of shares of Vital Common Stock equal to the Exchange Ratio (the aggregate number of shares of Vital Common Stock thus issued, the ***Consideration***).

(b) If any Immunic Shares outstanding immediately prior to the Effective Time are unvested or are subject to a repurchase option or the risk of forfeiture under any applicable restricted stock purchase agreement or other agreement with Immunic, then the shares of Vital Common Stock issued in exchange for such Immunic Shares will, to the same extent, be unvested and subject to the same repurchase option or risk of forfeiture, and the book-entry shares of Vital Common Stock exchanged therefore shall accordingly be marked with appropriate legends. Immunic shall take all actions that may be necessary to ensure that, from and after the Effective Time, Vital is entitled to exercise any such repurchase option or other right set forth in any such restricted stock purchase agreement or other agreement.

(c) No fractional shares of Vital Common Stock shall be issued in connection with the Transaction, and no certificates or scrip for any such fractional shares shall be issued. The number of Immunic Shares that would be issued to each Holder in connection with the Transaction (after aggregating all fractional shares of Vital Common Stock which would have been issued to such holder) shall be rounded up to the next whole share, in lieu of such fractional shares.

(d) If, between the time of calculating the Exchange Ratio and the Effective Time, the outstanding Immunic Shares or Vital Common Stock have been changed into, or exchanged for, a different number of shares or a different class, by reason of any stock dividend, subdivision, reclassification, recapitalization, split (including the Reverse Split to the extent such split has not previously been taken into account in calculating the Exchange Ratio), combination or exchange of shares, the Exchange Ratio shall be correspondingly adjusted to provide the holders of Immunic Common Shares the same economic effect as contemplated by this Agreement prior to such event.

1.5 Calculation of Net Cash.

(a) For the purposes of this Agreement, the ***Determination Date*** shall be the date that is ten (10) calendar days prior to the anticipated date for Closing (the ***Anticipated Closing Date***), as agreed upon by Vital and Immunic at least ten (10) calendar days prior to the Vital Stockholders Meeting. On or prior to the Determination Date, Vital shall provide Immunic with a list of all estimated liabilities of Vital as of the Determination Date that will factor into the determination of Net Cash and are individually in excess of $25,000 or in excess of $50,000 in the aggregate. Within five (5) calendar days following the Determination Date, Vital shall deliver to Immunic a schedule (the ***Net Cash Schedule***) setting forth, in reasonable detail, Vital s good faith, estimated calculation of Net Cash (using an estimate of Vital s accounts payable and accrued expenses, in each case as of the Anticipated Closing Date and determined in a manner consistent with the example set forth in Schedule 1.5) (the ***Net Cash Calculation***) as of the Anticipated Closing Date prepared and certified by Vital s Chief Financial Officer (or if there is no Chief Financial Officer, the principal accounting officer for Vital). Vital shall make the work papers and back-up materials used or useful in preparing the Net Cash Schedule, as reasonably requested by Immunic, available to Immunic and, if requested by Immunic, its accountants and counsel at reasonable times and upon reasonable notice.

(b) Within five (5) calendar days after Vital delivers the Net Cash Schedule (the ***Response Date***), Immunic will have the right to dispute any part of such Net Cash Schedule by delivering a written notice to that effect to Vital (a ***Dispute Notice***). Any Dispute Notice shall identify in reasonable detail the nature of any proposed revisions to the Net Cash Calculation.

(c) If on or prior to the Response Date, (i) Immunic notifies Vital in writing that it has no objections to the Net Cash Calculation or (ii) Immunic fails to deliver a Dispute Notice as provided in Section 1.5(b), then the Net Cash Calculation as set forth in the Net Cash Schedule shall be deemed to have been finally determined for purposes of this Agreement and to represent the Net Cash at the Anticipated Closing Date for purposes of this Agreement.

Table of Contents

(d) If Immunic delivers a Dispute Notice on or prior to the Response Date, then Representatives of Vital and Immunic shall promptly meet and attempt in good faith to resolve the disputed item(s) and negotiate an agreed-upon determination of Net Cash, which agreed upon Net Cash amount shall be deemed to have been finally determined for purposes of this Agreement and to represent the Net Cash at the Anticipated Closing Date for purposes of this Agreement.

(e) If Representatives of Vital and Immunic are unable to negotiate an agreed-upon determination of Net Cash at the Anticipated Closing Date pursuant to Section 1.5(d) within three (3) calendar days after delivery of the Dispute Notice (or such other period as Vital and Immunic may mutually agree upon), then Vital and Immunic shall jointly select an independent auditor of recognized standing in the United States (the ***Accounting Firm***) to resolve any remaining disagreements as to the Net Cash Calculation. Vital shall promptly deliver to the Accounting Firm the work papers and back-up materials used in preparing the Net Cash Schedule, and Vital and Immunic shall use commercially reasonable efforts to cause the Accounting Firm to make its determination within ten (10) calendar days of accepting its selection. Immunic and Vital shall be afforded the opportunity to present to the Accounting Firm any material related to the unresolved disputes and to discuss the issues with the Accounting Firm; *provided, however*, that no such presentation or discussion shall occur without the presence of a Representative of each of Immunic and Vital. The determination of the Accounting Firm shall be limited to the disagreements submitted to the Accounting Firm. The determination of the amount of Net Cash made by the Accounting Firm shall be deemed to have been finally determined for purposes of this Agreement and to represent the Net Cash at the Anticipated Closing Date for purposes of this Agreement, and the Parties shall delay the Closing until the resolution of the matters described in this Section 1.5(e). The fees and expenses of the Accounting Firm shall be allocated between Vital and Immunic in the same proportion that the disputed amount of the Net Cash that was unsuccessfully disputed by such Party (as finally determined by the Accounting Firm) bears to the total disputed amount of the Net Cash amount (and for the avoidance of doubt the fees and expenses to be paid by Vital shall reduce the Net Cash). If this Section 1.5(e) applies as to the determination of the Net Cash at the Anticipated Closing Date described in Section 1.5(a), upon resolution of the matter in accordance with this Section 1.5(e), the Parties shall not be required to determine Net Cash again even though the Closing Date may occur later than the Anticipated Closing Date, except that either Party may request a redetermination of Net Cash if either Party believes a material and unexpected change to the calculation of Net Cash has occurred.

1.6 Closing of Immunic s Transfer Books. At the Effective Time: (a) all Immunic Shares outstanding immediately prior to the Effective Time shall be treated in accordance with Section 1.4(a), and all Holders of Immunic Shares that were outstanding immediately prior to the Effective Time shall cease to have any rights as Holders; and (b) the stock transfer books of Immunic shall be closed with respect to all Immunic Shares outstanding immediately prior to the Effective Time. No further transfer of any such Immunic Shares shall be made on such stock transfer books after the Effective Time.

1.7 Book Entry Transfer.

(a) On or prior to the Closing Date, Vital and Immunic shall appoint Vital s current transfer agent to act as exchange agent in the Transaction (the ***Exchange Agent***). At the Effective Time, Vital shall deposit with the Exchange Agent the aggregate number of book-entry shares representing the Consideration issuable to Holders pursuant to Section 1.4(a). The book-entry shares of Vital Common Stock so deposited are referred to collectively as the ***Exchange Fund***.

(b) At the Effective Time and without any action on the part of any holder, all Immunic Shares represented by book-entry shall be deemed surrendered to the Exchange Agent, and Vital shall cause the Exchange Agent to deliver to each holder of Immunic Shares that number of uncertificated whole shares of Vital Common Stock that the holder

is entitled to receive pursuant to Section 1.4 in exchange for such Immunic Shares.

(c) Each of the Exchange Agent and Vital shall be entitled to deduct and withhold from any consideration deliverable pursuant to this Agreement to any holder of any Immunic Stock Certificate such

Table of Contents

amounts as are required to be deducted or withheld from such consideration under the Code or under any other applicable Legal Requirement and shall be entitled to request any reasonably appropriate Tax forms, including an IRS Form W-9 (or the appropriate IRS Form W-8, as applicable), from any recipient of payments hereunder. To the extent such amounts are so deducted or withheld, and remitted to the appropriate Tax authority, such amounts shall be treated for all purposes under this Agreement as having been paid to the Person to whom such amounts would otherwise have been paid.

(d) No party to this Agreement shall be liable to any holder of any Immunic Stock Certificate or to any other Person with respect to any shares of Vital Common Stock (or dividends or distributions with respect thereto) or for any cash amounts delivered to any public official pursuant to any applicable abandoned property law, escheat law or similar Legal Requirement.

1.8 Waiver of Rights. At the Effective Time, each Holder hereby waives and relinquishes the following rights with regard to such Holder s shareholdings in Immunic as partial consideration for the receipt of Vital Common Stock:

(a) any and all subscription rights such Holder may hold and/or own as legal or beneficial owner (the ***Subscription Rights***);

(b) any and all options or rights to acquire shares of Immunic resulting from convertible loans, convertible bonds, option rights or option bonds, in any case the totality of rights to acquire or subscribe for shares of Immunic; and

(c) any and all rights such Holder may have under any Immunic shareholders agreement, including the New CSA, including, but not limited to, rights of first refusal.

1.9 Immunic Consent, Approval and Waiver. Immunic hereby approves and accepts the contributions, assignments, delegations, transfers and waivers, as well as all other transactions and arrangements, as set forth in this Agreement (including in Sections 1.1 and 1.8 above), including with respect to the Immunic Shares, the Subscription Rights and with respect to any and all rights under the New CSA.

1.10 Vital s Acceptance of the Immunic Shares. Vital hereby accepts the contribution, transfer, assignment and delivery of the Immunic Shares under Section 1.1. Any and all rights with regard to the Immunic Shares including the right to receive undistributed profits as well as any Subscription Rights shall belong exclusively to Vital.

1.11 Further Action. If, at any time after the Effective Time, any further action is determined by Vital to be necessary or desirable to carry out the purposes of this Agreement, then the officers and directors of Vital and Immunic shall be fully authorized, and shall use their commercially reasonable efforts (in the name of Immunic, Vital or otherwise), to take such action.

1.12 Tax Consequences. For United States federal income Tax purposes, the Transaction is intended to constitute a transaction described in Section 351(a) of the Code, and the parties will report the Transaction as such for United States federal income Tax purposes. None of the parties will knowingly take any action, or fail to take any action, which action or failure to act would cause the Transaction to fail to qualify as a transaction described in Section 351(a) of the Code.

1.13 Certificates.

(a) Vital will prepare and deliver to Immunic at least three (3) Business Days prior to the Closing Date a certificate signed by the Chief Financial Officer of Vital in a form reasonable acceptable to Immunic, which sets forth a true and

complete list, as of immediately prior to the Effective Time, of the number of Vital Outstanding Shares and each component thereof (broken down by outstanding shares of Vital Common Stock, Vital Options, Vital RSUs, Vital Warrants, and other relevant securities) (***Vital Outstanding Shares Certificate***).

Table of Contents

(b) Immunic will prepare and deliver to Vital at least three (3) Business Day prior to the Closing Date a certificate signed by the Chief Executive Officer of Immunic in a form reasonably acceptable to Vital, which sets forth a true and complete list, as of immediately prior to the Effective Time (after giving effect to the Immunic Pre-Closing Financing and the Immunic Exit Bonus Agreements, and thus including all Immunic Pre-Closing Financing Shares and the Immunic Exit Bonus Shares) of: (a) the holders of Immunic Shares; (b) the portion of the Consideration each Holder is entitled to receive pursuant to Section 1.4; (c) all payments to be made to any current or former employee, consultant, independent contractor or director of Immunic in connection with the Transaction or the other Contemplated Transactions and (d) the calculation of the Immunic Associate Transaction Payout Excess (the ***Allocation Certificate***).

ARTICLE 2. REPRESENTATIONS AND WARRANTIES OF IMMUNIC AND THE HOLDERS

Immunic represents and warrants to Vital as follows in Sections 2.1 through 2.21, except as set forth in the written disclosure schedule delivered by Immunic to Vital (the ***Immunic Disclosure Schedule***) (it being understood that the representations and warranties in this Article 2 are qualified by: (a) any exceptions and disclosures set forth in the section or subsection of the Immunic Disclosure Schedule corresponding to the particular section or subsection in this Article 2 in which such representation and warranty appears; (b) any exceptions or disclosures explicitly cross-referenced in such section or subsection of the Immunic Disclosure Schedule by reference to another section or subsection of the Immunic Disclosure Schedule; and (c) any exceptions or disclosures set forth in any other section or subsection of the Immunic Disclosure Schedule to the extent it is reasonably apparent from the wording of such exception or disclosure that such exception or disclosure qualifies such representation and warranty). Each Holder represents and warrants to Vital as follows in Sections 2.22 through 2.34, except as set forth in the written disclosure schedule delivered by the Holders to Vital (the ***Holder Disclosure Schedule***) (it being understood that the representations and warranties in this Article 2 are qualified by: (i) any exceptions and disclosures set forth in the section or subsection of the Holder Disclosure Schedule corresponding to the particular section or subsection in this Article 2 in which such representation and warranty appears; (ii) any exceptions or disclosures explicitly cross-referenced in such section or subsection of the Holder Disclosure Schedule by reference to another section or subsection of the Holder Disclosure Schedule; and (iii) any exceptions or disclosures set forth in any other section or subsection of the Holder Disclosure Schedule to the extent it is reasonably apparent from the wording of such exception or disclosure that such exception or disclosure qualifies such representation and warranty). The inclusion of any information in the Immunic Disclosure Schedule or the Holder Disclosure Schedule shall not be deemed to be an admission or acknowledgement, in and of itself, that such information is required by the terms hereof to be disclosed, is material, has resulted in or would result in an Immunic Material Adverse Effect, or is outside the Ordinary Course of Business.

Representations and Warranties of Immunic

2.1 Subsidiaries; Due Organization; Organizational Documents.

(a) Section 2.1(a) of the Immunic Disclosure Schedule identifies each Subsidiary of Immunic (the ***Immunic Subsidiaries***). Neither Immunic nor any Entity identified on this Section 2.1(a) of the Immunic Disclosure Schedule owns any capital stock of, or any equity interest of any nature in, any other Entity. Immunic has not agreed nor is obligated to make, nor is bound by any Contract under which it may become obligated to make, any future investment in or capital contribution to any other Entity. Immunic has not, at any time, been a general partner of, or has otherwise been liable for any of the debts or other obligations of, any general partnership, limited partnership or other Entity.

(b) Each of Immunic and the Immunic Subsidiaries is a corporation or limited liability company, as applicable, duly organized, validly existing and in good standing under the laws of the jurisdiction of its incorporation or organization,

as applicable, and has all necessary power and authority: (i) to conduct its business in the manner in which its business is currently being conducted; (ii) to own and use its assets in the manner in which its assets are currently owned and used; and (iii) to perform its obligations under all Immunic Contracts.

Table of Contents

(c) Each of Immunic and the Immunic Subsidiaries is qualified to do business as a foreign corporation or limited liability company, as applicable, and is in good standing, under the laws of all jurisdictions where the nature of its business requires such qualification other than in jurisdictions where the failure to be so qualified would not constitute an Immunic Material Adverse Effect.

(d) Each director and officer of Immunic as of the date of this Agreement is set forth in Section 2.1(d) of the Immunic Disclosure Schedule.

(e) Immunic has delivered or made available to Vital accurate and complete copies of the certificate of incorporation, bylaws and other charter and organizational documents, including all currently effective amendments thereto, for Immunic and each Immunic Subsidiary. Neither Immunic nor any of its Subsidiaries is in violation of any provision of its respective organizational documents.

2.2 Authority; Vote Required.

(a) Immunic has all necessary corporate power and authority to enter into and to perform its obligations under this Agreement. The Immunic Board of Directors (i) has determined that the Transaction is advisable and fair to, and in the best interests of, Immunic and the Holders, (ii) has deemed advisable and approved the other actions contemplated by this Agreement, (iii) has duly authorized and approved by all necessary corporate action the execution, delivery and performance of this Agreement and the Contemplated Transactions, and (iv) has deemed advisable and approved, through a resolution, the transfer of the Immunic Shares as part of the Transaction and as otherwise contemplated by this Agreement. This Agreement has been duly executed and delivered by Immunic and, assuming the due authorization, execution and delivery by Vital, constitutes the legal, valid and binding obligation of Immunic, enforceable against Immunic in accordance with its terms, subject to: (A) laws of general application relating to bankruptcy, insolvency and the relief of debtors; and (B) rules of law governing specific performance, injunctive relief and other equitable remedies.

(b) The shareholders resolution by the Holders as attached hereto and the execution of this Agreement by the Holders are the only approval of the holders of Immunic Shares necessary to approve the Transaction, this Agreement and the Contemplated Transactions, including the Immunic Pre-Closing Financing and the issuance and sale of the Immunic Pre-Closing Financing Shares.

2.3 Non-Contravention; Consents.

(a) The execution and delivery of this Agreement by Immunic does not, and the performance of this Agreement by Immunic will not, (i) conflict with or violate the articles of association or memorandum of association (or other organizational documents equivalent to the certificate of incorporation and bylaws) of Immunic or the equivalent organizational documents of any of its Subsidiaries; (ii) conflict with or violate any Legal Requirement applicable to Immunic or any of its Subsidiaries or by which its or any of their respective properties is bound or affected, except for any such conflicts or violations that would not constitute an Immunic Material Adverse Effect; or (iii) require Immunic or any of its Subsidiaries to make any filing with or give any notice or make any payment to a Person, or obtain any Consent from a Person, or result in any breach of or constitute a default (or an event that with notice or lapse of time or both would become a default) under, or impair Immunic s rights or alter the rights or obligations of any third party under, or give to others any rights of termination, amendment, acceleration or cancelation of, or result in the creation of an Encumbrance on any of the properties or assets of Immunic or any of its Subsidiaries pursuant to, any Immunic Material Contract.

(b) No material Consent or order of, or registration, declaration or filing with, any Governmental Body is required by or with respect to Immunic or any of the Immunic Subsidiaries in connection with the execution and delivery of this Agreement or the consummation of the Contemplated Transactions, except for (i) any required filings under the HSR Act and any foreign antitrust Legal Requirement and (ii) such Consents, orders, registrations, declarations and filings as may be required under applicable federal and state securities laws.

Table of Contents

2.4 Capitalization.

(a) The authorized capital stock of Immunic as of the date of this Agreement consists of: (i) 50,000 Immunic Common Shares, of which 50,000 shares are issued and outstanding as of the date of this Agreement; and (ii) 312,997 Immunic Preferred Shares, of which 312,997 shares are issued and outstanding as of the date of this Agreement. Immunic does not hold any of its capital stock in treasury. All of the outstanding Immunic Shares have been duly authorized and validly issued, and are fully paid and non-assessable. Section 2.4(a) of the Immunic Disclosure Schedule lists, as of the date of this Agreement, each record holder of issued and outstanding Immunic Shares and the number and type of Immunic Shares held by such holder.

(b) Except for the Immunic Exit Bonus Agreements, Immunic does not have any stock option plan or any other plan, program, agreement or arrangement providing for any equity-based compensation for any Person.

(c) Except for the Immunic Pre-Closing Financing Shares that will be issued pursuant to the Immunic Pre-Closing Financing and the Immunic Exit Bonus Shares that will be issued pursuant to the Immunic Exit Bonus Agreements, there is no: (i) outstanding subscription, option, call, warrant or right (whether or not currently exercisable) to acquire any shares of the capital stock or other securities of Immunic or any of its Subsidiaries; (ii) outstanding security, instrument or obligation that is or may become convertible into or exchangeable for any shares of the capital stock or other securities of Immunic or any of its Subsidiaries; (iii) stockholder rights plan (or similar plan commonly referred to as a poison pill) or Contract under which Immunic or any of its Subsidiaries is or may become obligated to sell or otherwise issue any shares of its capital stock or any other securities; or (iv) condition or circumstance that may give rise to or provide a basis for the assertion of a claim by any Person to the effect that such Person is entitled to acquire or receive any shares of capital stock or other securities of Immunic or any of its Subsidiaries. Except for the Immunic Virtual Stock Option Plan, there are no outstanding or authorized stock appreciation, phantom stock, profit participation, restricted stock units, equity-based or other similar rights with respect to Immunic or any of its Subsidiaries.

(d) (i) None of the outstanding Immunic Shares are entitled or subject to any preemptive right, right of repurchase or forfeiture, right of participation, right of maintenance or any similar right; (ii) none of the outstanding Immunic Shares are subject to any right of first refusal in favor of Immunic; (iii) there are no outstanding bonds, debentures, notes or other indebtedness of Immunic or its Subsidiaries having a right to vote on any matters on which the Holders have a right to vote; and (iv) there is no Immunic Contract to which Immunic or its Subsidiaries are a party relating to the voting or registration of, or restricting any Person from purchasing, selling, pledging or otherwise disposing of (or from granting any option or similar right with respect to), any Immunic Shares. Neither Immunic nor any of its Subsidiaries is under any obligation, or is bound by any Contract pursuant to which it may become obligated, to repurchase, redeem or otherwise acquire any outstanding Immunic Shares or other securities.

(e) All outstanding Immunic Shares been issued and granted, as applicable, in material compliance with all applicable securities laws and other applicable Legal Requirements.

2.5 Financial Statements.

(a) Section 2.5(a) of the Immunic Disclosure Schedule includes true and complete copies of (i) Immunic s audited consolidated balance sheets at December 31, 2016 and December 31, 2017, (ii) the Immunic Unaudited Interim Balance Sheet, (iii) Immunic s audited consolidated statements of operations, cash flow and stockholders equity for the years ended December 31, 2016 and December 31, 2017, and (iv) Immunic s unaudited statements of operations, cash flow and shareholders equity for the nine (9) months ended September 30, 2018 (collectively, the ***Immunic Financials***). The Immunic Financials (A) were prepared in accordance with IFRS except as may be indicated in the

footnotes to such Immunic Financials and that unaudited financial statements may not have notes thereto and other presentation items that may be required by IFRS and are subject to normal and recurring year-end adjustments that are not reasonably expected to be material in amount applied on a consistent basis unless otherwise noted therein throughout the periods indicated and (B) fairly present the financial condition and operating results of Immunic and its consolidated Subsidiaries as of the dates and for the periods indicated therein.

(b) Each of Immunic and its Subsidiaries maintains a system of internal accounting controls designed to provide reasonable assurance that: (i) transactions are executed in accordance with management s general or specific authorizations; (ii) transactions are recorded as necessary to permit preparation of financial statements in conformity with IFRS and to maintain asset accountability; (iii) access to assets is permitted only in accordance with management s general or specific authorization; and (iv) the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action is taken with respect to any differences. Immunic and each of its Subsidiaries maintains internal control over financial reporting that provides reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with IFRS.

2.6 Absence of Changes. Since September 30, 2018 through the date of this Agreement, each of Immunic and its Subsidiaries has conducted its business in the Ordinary Course of Business and there has not been (a) any event that has had an Immunic Material Adverse Effect or any event, condition, change or effect that would reasonably be expected to have, individually or in the aggregate, an Immunic Material Adverse Effect or (b) or any action, event or occurrence that would have required consent of Vital pursuant to Section 4.3(b) of this Agreement had such action, event or occurrence taken place after the execution and delivery of this Agreement.

2.7 Title to Assets. Each of Immunic and the Immunic Subsidiaries owns, and has good and valid title to, or, in the case of leased properties and assets, valid leasehold interests in, all tangible properties or assets and equipment used or held for use in its business or operations or purported to be owned by it, in each case, free and clear of any Encumbrances, except for: (i) any lien for current Taxes not yet due and payable or for Taxes that are being contested in good faith and for which adequate reserves have been made on the Immunic Unaudited Interim Balance Sheet; (ii) minor liens that have arisen in the Ordinary Course of Business and that do not (in any case or in the aggregate) materially detract from the value of the assets subject thereto or materially impair the operations of Immunic or any Immunic Subsidiary; and (iii) liens listed in Section 2.7 of the Immunic Disclosure Schedule.

2.8 Real Property; Leaseholds. Neither Immunic nor any Immunic Subsidiary currently owns or has ever owned any real property or any interest in real property, except for the leaseholds created under the real property leases (including any amendments thereto) identified in Section 2.8 of the Immunic Disclosure Schedule (the ***Immunic Leases***), which are each in full force and effective, with no existing material default thereunder. The Immunic Leases do not classify as Property (Grundstücke) in the sense of Section 2 of the German Real Estate Transfer Tax Act (Grunderwerbsteuergesetz).

2.9 Intellectual Property.

(a) Immunic, directly or through an Immunic Subsidiary, owns, or has the right to use, and has the right to bring actions for the infringement of, all Immunic IP Rights, except for any failure to own or have the right to use, or have the right to bring actions that would not constitute an Immunic Material Adverse Effect.

(b) Section 2.9(b) of the Immunic Disclosure Schedule is an accurate, true and complete listing of all Immunic Registered IP.

(c) Section 2.9(c) of the Immunic Disclosure Schedule accurately identifies (i) all Immunic IP Rights licensed to Immunic or any Immunic Subsidiary (other than (A) any non-customized software that (1) is so licensed solely in executable or object code form pursuant to a non-exclusive, internal use software license and other Intellectual Property associated with such software and (2) is not incorporated into, or material to the development, manufacturing, or distribution of, any of Immunic s or any Immunic Subsidiary s products or services and (B) any Intellectual Property licensed ancillary to the purchase or use of equipment, reagents or other materials); (ii) the

corresponding Immunic Contracts pursuant to which such Immunic IP Rights are licensed to Immunic or any Immunic Subsidiary; (iii) whether the license or licenses granted to Immunic or any Immunic Subsidiary are exclusive or non-exclusive; and (iv) whether any funding, facilities or personnel of any Governmental Body were used, directly or indirectly, to develop or create, in whole or in part, such Immunic IP Rights.

(d) Section 2.9(d) of the Immunic Disclosure Schedule accurately identifies each Immunic Contract pursuant to which any Person (other than Immunic or any Immunic Subsidiary) has been granted any license or option to obtain a license under, or otherwise has received or acquired any right (whether or not currently exercisable) or interest in, any Immunic IP Rights. Immunic is not bound by, and no Immunic IP Rights are subject to, any Contract containing any covenant or other provision that in any way limits or restricts the ability of Immunic or any Immunic Subsidiary to use, exploit, assert or enforce any Immunic IP Rights anywhere in the world, in each case as would materially limit the business of Immunic as currently conducted or planned to be conducted.

(e) Immunic or one of its Subsidiaries solely owns all right, title and interest to and in Immunic IP Rights (other than Immunic IP Rights (i) exclusively or non-exclusively licensed to Immunic or one of its Subsidiaries, as identified in Section 2.9(c) of the Immunic Disclosure Schedule, (ii) any non-customized software that (A) is so licensed solely in executable or object code form pursuant to a non-exclusive, internal use software license and other Intellectual Property associated with such software and (B) is not incorporated into, or material to the development, manufacturing or distribution of, any of Immunic s or any Immunic Subsidiary s products or services, and (iii) any Intellectual Property licensed ancillary to the purchase or use of equipment, reagents or other materials) free and clear of any Encumbrances. Without limiting the generality of the foregoing:

(i) All documents and instruments necessary to register or apply for or renew registration of all Immunic Registered IP have been validly executed, delivered and filed in a timely manner with the appropriate Governmental Body except for any such failure, individually or collectively, that would not constitute an Immunic Material Adverse Effect.

(ii) Each Person who is or was an employee or contractor of Immunic or any Immunic Subsidiary and who is or was involved in the creation or development of any Immunic IP Rights has signed a valid, enforceable agreement containing an assignment of such Intellectual Property to Immunic or such Subsidiary and confidentiality provisions protecting trade secrets and confidential information of Immunic and its Subsidiaries. To the Knowledge of Immunic and its Subsidiaries, no current or former stockholder, officer, director, employee or contractor of Immunic or any of its Subsidiaries has any claim, right (whether or not currently exercisable), or interest to or in any Immunic IP Rights. To the Knowledge of Immunic and its Subsidiaries, no employee or contractor of Immunic or any or any Immunic Subsidiary is (a) bound by or otherwise subject to any Contract restricting him or her from performing his or her duties for Immunic or such Subsidiary or (b) in breach of any Contract with any current or former employer or other Person concerning Immunic IP Rights or confidentiality provisions protecting trade secrets and confidential information comprising Immunic IP Rights.

(iii) No funding, facilities or personnel of any Governmental Body were used, directly or indirectly, to develop or create, in whole or in part, any Immunic IP Rights in which Immunic or any of its Subsidiaries has an ownership interest.

(iv) Immunic and each of its Subsidiaries has taken reasonable steps to maintain the confidentiality of and otherwise protect and enforce its rights in all proprietary information that Immunic or such Subsidiary holds, or purports to hold, as a trade secret.

(v) Neither Immunic nor any of its Subsidiaries has assigned or otherwise transferred ownership of, or agreed to assign or otherwise transfer ownership of, any Immunic IP Rights to any other Person.

(vi) To the Knowledge of Immunic and its Subsidiaries, the Immunic IP Rights constitute all Intellectual Property necessary for Immunic and its Subsidiaries to conduct its business as currently conducted or planned to be conducted.

(f) The manufacture, marketing, license, sale or intended use of any product or service currently approved or sold or under preclinical or clinical development by Immunic or any of its Subsidiaries (i) does not violate or constitute a breach of any license or agreement between Immunic or its Subsidiaries and any third party, and, (ii) to the Knowledge of Immunic and its Subsidiaries, does not infringe or misappropriate any Intellectual Property right of any other party. Immunic has disclosed in correspondence to Vital the third-party

Table of Contents

patents and patent applications found during all freedom to operate searches that were conducted by Immunic or its Subsidiaries related to any product or technology currently licensed or sold or under development by Immunic or its Subsidiaries. To the Knowledge of Immunic and its Subsidiaries, no third party is infringing upon or misappropriating, or violating any license or agreement with Immunic or its Subsidiaries relating to, any Immunic IP Rights. There is no current or, to the Knowledge of Immunic, pending challenge, claim or Legal Proceeding (including opposition, interference or other proceeding in any patent or other government office) contesting the validity, enforceability, ownership or right to use, sell, license or dispose of any Immunic IP Rights, nor has Immunic or any of its Subsidiaries received any written notice asserting that the manufacture, marketing, license, sale or intended use of any product or service currently approved or sold or under preclinical or clinical development by Immunic or any of its Subsidiaries conflicts with or infringes or misappropriates or will conflict with or infringe or misappropriate the rights of any other Person.

(g) Each material item of Immunic IP Rights that is Immunic Registered IP is and at all times has been filed and maintained in compliance with all applicable Legal Requirements and all filings, payments and other actions required to be made or taken to maintain such item of Immunic Registered IP in full force and effect have been made by the applicable deadline, except for any failure to perform any of the foregoing, individually or collectively, that would not constitute an Immunic Material Adverse Effect.

(h) To the Knowledge of Immunic and its Subsidiaries, no trademark (whether registered or unregistered) or trade name owned, used, or applied for by Immunic or any of its Subsidiaries conflicts or interferes with any trademark (whether registered or unregistered) or trade name owned, used, or applied for by any other Person. None of the goodwill associated with or inherent in any trademark (whether registered or unregistered) in which Immunic or any of its Subsidiaries has or purports to have an ownership interest has been impaired as determined by Immunic or any of its Subsidiaries in accordance with IFRS.

2.10 Material Contracts.

(a) Section 2.10(a) of the Immunic Disclosure Schedule lists the following Immunic Contracts, effective as of the date of this Agreement (each, an ***Immunic Material Contract*** and collectively, the ***Immunic Material Contracts***):

(i) each Immunic Contract relating to any material bonus, deferred compensation, severance, incentive compensation, pension, profit-sharing or retirement plans, or any other employee benefit plans or arrangements;

(ii) each Immunic Contract requiring payments by Immunic or its Subsidiaries after the date of this Agreement in excess of $300,000 pursuant to its express terms relating to the employment of, or the performance of employment-related services by, any Person, including any employee, consultant or independent contractor, or entity providing employment related, consulting or independent contractor services, not terminable by Immunic or its Subsidiaries on ninety (90) calendar days or less notice without liability, except to the extent general principles of wrongful termination law may limit Immunic s, Immunic s Subsidiaries or such successor s ability to terminate employees at will;

(iii) each Immunic Contract relating to any agreement or plan, including any stock option plan, stock appreciation right plan or stock purchase plan, any of the benefits of which will be increased, or the vesting of benefits of which will be accelerated, by the occurrence of any of the Contemplated Transactions (either alone or in conjunction with any other event, such as termination of employment), or the value of any of the benefits of which will be calculated on the basis of any of the Contemplated Transactions;

(iv) each Immunic Contract relating to any agreement of indemnification or guaranty not entered into in the Ordinary Course of Business;

(v) each Immunic Contract containing (A) any covenant limiting the freedom of Immunic, its Subsidiaries or any successor thereto to engage in any line of business or compete with any Person, (B) any most-favored pricing arrangement, (C) any exclusivity provision, or (D) any non-solicitation provision;

(vi) each Immunic Contract relating to capital expenditures and requiring payments after the date of this Agreement in excess of $300,000 pursuant to its express terms and not cancelable without penalty;

(vii) each Immunic Contract relating to the disposition or acquisition of material assets or any ownership interest in any Entity;

(viii) each Immunic Contract relating to any mortgages, indentures, loans, notes or credit agreements, security agreements or other agreements or instruments relating to the borrowing of money or extension of credit in excess of $300,000 or creating any material Encumbrances with respect to any assets of Immunic or any Immunic Subsidiary or any loans or debt obligations with officers or directors of Immunic;

(ix) each Immunic Contract requiring payment by or to Immunic or its Subsidiaries after the date of this Agreement in excess of $300,000 pursuant to its express terms relating to: (A) any distribution agreement (identifying any that contain exclusivity provisions); (B) any agreement involving provision of services or products with respect to any pre-clinical or clinical development activities of Immunic or its Subsidiaries; (C) any dealer, distributor, joint marketing, alliance, joint venture, cooperation, development or other agreement currently in force under which Immunic or its Subsidiaries have continuing obligations to develop or market any product, technology or service, or any agreement pursuant to which Immunic or its Subsidiaries have continuing obligations to develop any Intellectual Property that will not be owned, in whole or in part, by Immunic or an Immunic Subsidiary; or (D) any Contract to license any third party to manufacture or produce any product, service or technology of Immunic or its Subsidiaries or any Contract to sell, distribute or commercialize any products or service of Immunic or its Subsidiaries, in each case, except for Immunic Contracts entered into in the Ordinary Course of Business;

(x) each Immunic Contract with any Person, including any financial advisor, broker, finder, investment banker or other Person, providing advisory services to Immunic or an Immunic Subsidiary in connection with the Contemplated Transactions;

(xi) each Immunic IP Rights Agreement other than those that are immaterial;

(xii) each Immunic Lease; or

(xiii) any other Immunic Contract that is not terminable at will (with no penalty or payment) by Immunic and (A) which involves payment or receipt by Immunic or its Subsidiaries after the date of this Agreement under any such agreement, contract or commitment of more than $300,000 in the aggregate, or obligations after the date of this Agreement in excess of $500,000 in the aggregate, or (B) that is material to the business or operations of Immunic and its Subsidiaries.

(b) Immunic has delivered or made available to Vital accurate and complete (except for applicable redactions thereto) copies of all Immunic Material Contracts, including all amendments thereto. There are no Immunic Material Contracts that are not in written form. Neither Immunic nor any of its Subsidiaries has, nor to Immunic s Knowledge, as of the date of this Agreement has any other party to an Immunic Material Contract, breached, violated or defaulted under, or received notice that it has breached, violated or defaulted under, any of the terms or conditions of any Immunic Material Contract in such manner as would permit any other party to cancel or terminate any such Immunic Material Contract, or would permit any other party to seek damages that would result in an Immunic Material Adverse Effect. As to Immunic and its Subsidiaries, as of the date of this Agreement, each Immunic Material Contract is valid, binding, enforceable and in full force and effect, subject to: (i) laws of general application relating to bankruptcy, insolvency and the relief of debtors; and (ii) rules of law governing specific performance, injunctive relief and other equitable remedies.

2.11 Undisclosed Liabilities. As of the date of this Agreement, neither Immunic nor any Immunic Subsidiary has any liability, indebtedness, obligation, expense, claim, deficiency, guaranty or endorsement of any kind, whether accrued, absolute, contingent, matured, or unmatured (whether or not required to be reflected in the financial statements in accordance with IFRS) (each a ***Liability***), except for: (a) Liabilities identified as such in the Immunic Unaudited Interim Balance Sheet; (b) normal and recurring current Liabilities that have been incurred by Immunic or its Subsidiaries since the date of the Immunic Unaudited Interim Balance Sheet in the

Table of Contents

Ordinary Course of Business; (c) Liabilities for performance in the Ordinary Course of Business of obligations of Immunic or any Immunic Subsidiary under Immunic Contracts, including the reasonably expected performance of such Immunic Contracts in accordance with their terms (which would not include, for example, any instances of breach or indemnification); (d) Liabilities incurred in connection with the Contemplated Transactions; and (e) Liabilities listed in Section 2.11 of the Immunic Disclosure Schedule.

2.12 Compliance; Permits; Restrictions.

(a) Immunic and each Immunic Subsidiary are, and since January 1, 2018 have been, in compliance with all applicable Legal Requirements except for any non-compliance that would not constitute an Immunic Material Adverse Effect. No investigation, claim, suit, proceeding, audit or other action by any Governmental Body or authority is pending or, to the Knowledge of Immunic, threatened against Immunic or any Immunic Subsidiary. There is no Contract, judgment, injunction, order or decree binding upon Immunic or any Immunic Subsidiary which (i) has or would reasonably be expected to have the effect of prohibiting or materially impairing any business practice of Immunic or any Immunic Subsidiary, any acquisition of material property by Immunic or any Immunic Subsidiary or the conduct of business by Immunic or any Immunic Subsidiary as currently conducted, (ii) would reasonably be expected to have an adverse effect on Immunic s ability to comply with or perform any covenant or obligation under this Agreement, or (iii) would reasonably be expected to have the effect of preventing, delaying, making illegal or otherwise interfering with the Transaction or any of the Contemplated Transactions.

(b) Immunic and the Immunic Subsidiaries hold all required Governmental Authorizations that are material to the operation of the business of Immunic (the ***Immunic Permits***) as currently conducted. Section 2.12(b) of the Immunic Disclosure Schedule identifies each Immunic Permit. As of the date of this Agreement, each of Immunic and each Immunic Subsidiary is in material compliance with the terms of the Immunic Permits. No action, proceeding, revocation proceeding, amendment procedure, writ, injunction or claim is pending or, to the Knowledge of Immunic, threatened, which seeks to revoke, limit, suspend, or materially modify any Immunic Permit. The rights and benefits of each material Immunic Permit will be available to Vital immediately after the Effective Time on terms substantially identical to those enjoyed by Immunic and its Subsidiaries immediately prior to the Effective Time.

(c) There are no proceedings pending or, to the Knowledge of Immunic, threatened with respect to an alleged violation by Immunic or any of its Subsidiaries of the Federal Food, Drug, and Cosmetic Act (***FDCA***), Food and Drug Administration (***FDA***) regulations adopted thereunder, the Controlled Substances Act, the European Medicines Evaluation Agency (***EMEA***) or any other similar Legal Requirements promulgated by the FDA, EMEA or other comparable Governmental Body responsible for regulation of the development, clinical testing, manufacturing, sale, marketing, distribution and importation or exportation of drug products (the FDA, EMEA and each such other comparable Governmental Body, a ***Drug Regulatory Agency***).

(d) Immunic and each of its Subsidiaries holds all required Governmental Authorizations issuable by any Drug Regulatory Agency necessary for the conduct of the business of Immunic or such Subsidiary as currently conducted, and development, clinical testing, manufacturing, marketing, distribution and importation or exportation, as currently conducted, of any of its products or product candidates (the ***Immunic Product Candidates***) (collectively, the ***Immunic Regulatory Permits***), and no such Immunic Regulatory Permit has been (i) revoked, withdrawn, suspended, canceled or terminated or (ii) modified in any adverse manner, other than immaterial adverse modifications. Immunic and each Immunic Subsidiary is in compliance in all material respects with the Immunic Regulatory Permits and has not received any written notice or other written communication from any Drug Regulatory Agency regarding (A) any material violation of or failure to comply materially with any term or requirement of any Immunic Regulatory Permit or (B) any revocation, withdrawal, suspension, cancelation, termination or material modification of any Immunic Regulatory Permit. Immunic has made available to Vital all information requested by Vital in Immunic s or its

Subsidiaries possession or control relating to the Immunic Product Candidates and the development, clinical testing, manufacturing, importation and exportation of the Immunic Product Candidates, including complete copies of the following (to the extent there are any): adverse event reports; clinical study reports and material study data; inspection reports, notices of

Table of Contents

adverse findings, warning letters, filings and letters and other written correspondence to and from any Drug Regulatory Agency; and meeting minutes with any Drug Regulatory Agency. Immunic has complied in all material respects with the ICH E9 Guidance for Industry: Statistical Principles for Clinical Trials in the management of the clinical data that have been presented by Immunic. To the Knowledge of Immunic, there are no studies, tests or trials the results of which Immunic believes reasonably call into question (i) the study, test or trial results of any Immunic Product Candidates, (ii) the efficacy or safety of any Immunic Product Candidates or (iii) any of the Immunic s filings with any Governmental Body.

(e) All clinical, pre-clinical and other studies and tests conducted by or on behalf of, or sponsored by, Immunic or its Subsidiaries or in which Immunic or its Subsidiaries or their respective current products or product candidates, including the Immunic Product Candidates, have participated were, and if still pending are being, conducted in all material respects in accordance with standard medical and scientific research procedures and in compliance with the applicable regulations of the Drug Regulatory Agencies and other applicable Legal Requirements, including 21 C.F.R. Parts 50, 54, 56, 58 and 312. Since April 12, 2016, neither Immunic nor any of its Subsidiaries has received any notices, correspondence or other communications from any Drug Regulatory Agency requiring, or to the Knowledge of Immunic threatening to initiate, the termination or suspension of any clinical studies conducted by or on behalf of, or sponsored by, Immunic or any of its Subsidiaries or in which Immunic or any of its Subsidiaries or their respective current products or product candidates, including the Immunic Product Candidates, have participated.

(f) Neither Immunic nor any of the Immunic Subsidiaries is the subject of any pending, or to the Knowledge of Immunic or the Immunic Subsidiaries, threatened investigation in respect of its business or products by any Drug Regulatory Agency, including by the FDA pursuant to its Fraud, Untrue Statements of Material Facts, Bribery, and Illegal Gratuities Final Policy set forth in 56 Fed. Reg. 46191 (September 10, 1991) and any amendments thereto. To the Knowledge of Immunic and its Subsidiaries, neither Immunic nor any of the Immunic Subsidiaries has committed any acts, made any statement, or failed to make any statement, in each case in respect of its business or Immunic Product Candidates that would violate any Legal Requirement or any policy of any Drug Regulatory Agency, including the FDA s Fraud, Untrue Statements of Material Facts, Bribery, and Illegal Gratuities Final Policy, and any amendments thereto. None of Immunic, any of its Subsidiaries or to the Knowledge of Immunic, any of their respective officers, employees or agents has been convicted of any crime or engaged in any conduct that would reasonably be expected to result in a debarment or exclusion (i) under 21 U.S.C. Section 335a or (ii) any similar applicable Legal Requirement. To the Knowledge of Immunic, no debarment or exclusionary claims, actions, proceedings or investigations in respect of their business or products are pending or threatened against Immunic, any Immunic Subsidiary or any of their respective officers, employees or agents.

2.13 Tax Matters.

(a) Immunic and each Immunic Subsidiary have timely filed all federal income Tax Returns and other material Tax Returns that they were required to file under applicable Legal Requirements. All such Tax Returns were correct and complete in all material respects and have been prepared in material compliance with all applicable Legal Requirements. Neither Immunic nor any Immunic Subsidiary is currently the beneficiary of any extension of time within which to file any Tax Return other than the automatic extension of the filing deadline for German taxpayers who are represented by a tax advisor. No claim has ever been made by an authority in a jurisdiction where Immunic or any Immunic Subsidiary does not file Tax Returns that it is subject to taxation by that jurisdiction.

(b) All material Taxes due and owing by Immunic or any Immunic Subsidiary on or before the date hereof (whether or not shown on any Tax Return) have been paid. The unpaid Taxes of Immunic and any Immunic Subsidiary have been reserved for on the Immunic Unaudited Interim Balance Sheet in accordance with IFRS. Since the date of the Immunic Unaudited Interim Balance Sheet, neither Immunic nor any Immunic Subsidiary has incurred any Liability

for Taxes outside the Ordinary Course of Business or otherwise inconsistent with past custom and practice.

Table of Contents

(c) Immunic and each Immunic Subsidiary have withheld and paid all Taxes required to have been withheld and paid in connection with any amounts paid or owing to any employee, independent contractor, creditor, stockholder or other third party.

(d) There are no Encumbrances for Taxes (other than Taxes not yet due and payable or Taxes that are being contested in good faith and for which adequate reserves have been made on Immunic s Unaudited Interim Balance Sheet) upon any of the assets of Immunic or any Immunic Subsidiary.

(e) No material deficiencies for Taxes with respect to Immunic or any Immunic Subsidiary have been claimed, proposed or assessed by any Governmental Body in writing. There are no pending (or, based on written notice, threatened) audits, assessments or other actions for or relating to any liability in respect of Taxes of Immunic or any Immunic Subsidiary. No issues relating to Taxes of Immunic or any Immunic Subsidiary were raised by the relevant Tax authority in any completed audit or examination that would reasonably be expected to result in a material amount of Taxes in a later taxable period. Immunic has delivered or made available to Vital complete and accurate copies of all federal income Tax and all other material Tax Returns of Immunic and each Immunic Subsidiary (and predecessors of each) for all taxable years remaining open under the applicable statute of limitations, and complete and accurate copies of all examination reports and statements of deficiencies assessed against or agreed to by Immunic and each Immunic Subsidiary (and predecessors of each), with respect to federal income Tax and all other material Taxes. Neither Immunic nor any Immunic Subsidiary (or any of their predecessors) has waived any statute of limitations in respect of Taxes or agreed to any extension of time with respect to a Tax assessment or deficiency, nor has any request been made in writing for any such extension or waiver.

(f) All material elections with respect to Taxes affecting Immunic or any Immunic Subsidiary as of the date hereof are set forth in Section 2.13(f) of the Immunic Disclosure Schedule.

(g) Neither Immunic nor any Immunic Subsidiary is a party to any Tax allocation, Tax sharing or similar agreement (including indemnity arrangements), other than commercial contracts entered into in the Ordinary Course of Business with vendors, customers and landlords.

(h) Neither Immunic nor any Immunic Subsidiary has ever been a member of an affiliated group filing a consolidated, combined or unitary Tax Return (other than a group the common parent of which is Immunic) for federal, state, local or foreign Tax purposes. Neither Immunic nor any Immunic Subsidiary has any Liability for the Taxes of any Person (other than Immunic and any Immunic Subsidiary), as a transferee or successor, by Contract, or otherwise.

(i) Neither Immunic nor any Immunic Subsidiary has distributed stock of another Person, or has had its stock distributed by another Person.

(j) Neither Immunic nor any Immunic Subsidiary will be required to include any item of income in, or exclude any item of deduction from, taxable income for any period (or any portion thereof) ending after the Closing Date as a result of any (i) installment sale or other open transaction disposition made on or prior to the Closing Date, or (ii) agreement with any Tax authority made or entered into on or prior to the Closing Date.

(k) Neither Immunic nor any Immunic Subsidiary is a partner for Tax purposes with respect to any joint venture, partnership, or, to the Knowledge of Immunic, other arrangement or contract which is treated as a partnership for Tax purposes.

(l) Neither Immunic nor any Immunic Subsidiary (A) is a controlled foreign corporation as defined in Section 957 of the Code, (B) is a passive foreign investment company within the meaning of Section 1297 of the Code, or (C) has a permanent establishment (within the meaning of an applicable Tax treaty) or otherwise has an office or fixed place of business in a country other than the country in which it is organized.

(m) Neither Immunic nor any Immunic Subsidiary has entered into any transaction identified as a listed transaction for purposes of Treasury Regulations Sections 1.6011-4(b)(2) or 301.6111-2(b)(2).

(n) Neither Immunic nor any Immunic Subsidiary has taken any action, or has knowledge of any fact or circumstance, that would reasonably be expected to prevent the Transaction from qualifying as a transaction described in Section 351(a) of the Code.

2.14 Employee and Labor Matters; Benefit Plans.

(a) The employment of each of the Immunic and Immunic Subsidiary employees is terminable by Immunic or the applicable Immunic Subsidiary at will (or otherwise in accordance with general principles of wrongful termination law).

(b) Neither Immunic nor any Immunic Subsidiary is a party to or bound by, nor has a duty to bargain under, any collective bargaining agreement or other Contract with a labor organization representing any of its employees, and there are no labor organizations representing, purporting to represent or, to the Knowledge of Immunic, seeking to represent any employees of Immunic or any Immunic Subsidiary.

(c) There has never been, nor, to the Knowledge of Immunic has there been any threat of, any strike, slowdown, work stoppage, lockout, job action, union organizing activity or any similar activity or dispute, affecting Immunic or any Immunic Subsidiary.

(d) Neither Immunic nor any Immunic Subsidiary is or has been engaged in any unfair labor practice within the meaning of the National Labor Relations Act. There is no Legal Proceeding, claim, labor dispute or grievance pending or, to the Knowledge of Immunic, threatened or reasonably anticipated relating to any employment contract, privacy right, labor dispute, wages and hours, leave of absence, plant closing notification, workers compensation policy, long-term disability policy, harassment, retaliation, immigration, employment statute or regulation, safety or discrimination matter involving any Immunic Associate, including charges of unfair labor practices or discrimination complaints.

(e) Section 2.14(e) of the Immunic Disclosure Schedule lists, as of the date of this Agreement, all written and describes all non-written employee benefit plans (as defined in Section 3(3) of ERISA) and all bonus, equity-based, retention, incentive, deferred compensation, retirement or supplemental retirement, profit sharing, severance, golden parachute, disability, life or accident insurance, paid time off, vacation, cafeteria, dependent care, medical care, employee assistance program, education or tuition assistance programs, fringe or employee benefit, and all other compensation, plans, programs, agreements or arrangements, including but not limited to any employment, consulting, independent contractor, severance or executive compensation agreements or arrangements (other than regular salary or wages), written or otherwise, which are currently in effect relating to any present or former employee, independent contractor or director of Immunic or any Immunic Subsidiary or any Immunic Affiliate or which is maintained by, administered or contributed to by, or required to be contributed to by, Immunic, any Immunic Subsidiary or any Immunic Affiliate, or under which Immunic or any Immunic Subsidiary or any Immunic Affiliate has any current or would reasonably be expected to incur liability after the date hereof (each, an ***Immunic Employee Plan***). No Immunic Employee Plan is subject to any Legal Requirement of any United States Governmental Body.

(f) Immunic and each of its Subsidiaries are in material compliance with all applicable foreign, federal, state and local laws, rules, regulations, orders, rulings, judgments, decrees or arbitration awards respecting employment, employment practices, terms and conditions of employment, worker classification, tax withholding, prohibited discrimination, equal employment, fair employment practices, meal and rest periods, immigration status, employee safety and health, wages (including overtime wages), compensation, hours of work, labor relations, leave of absence requirements, occupational health and safety, privacy, harassment, retaliation, immigration and wrongful discharge and in each case, with respect to employees: (i) has withheld and reported all amounts required by law or by

agreement to be withheld and reported with respect to wages, salaries and other payments to employees, (ii) is not liable for any arrears of wages, severance pay or any Taxes or any penalty of any material amount for failure to comply with any of the foregoing, and (iii) is not liable for any payment to any trust or other fund governed by or maintained by or on behalf of any Governmental Body, with respect to unemployment compensation benefits, social security or other benefits or obligations for employees (other than routine payments to be made in the normal course of business and consistent with past practice).

Table of Contents

There are no actions, suits, claims or administrative matters pending, or to the Knowledge of Immunic, threatened or reasonably anticipated against Immunic or any of its Subsidiaries relating to any employee, employment agreement, independent contractor, independent contractor agreement or Immunic Employee Plan (other than routine claims for benefits under the Immunic Employee Plans). There are no pending or, to the Knowledge of Immunic, threatened or reasonably anticipated claims or actions against Immunic, any of its Subsidiaries, any Immunic trustee or any trustee of any Subsidiary under any worker s compensation policy or long-term disability policy (other than routine claims for benefits under the long-term disability policy). Neither Immunic nor any Subsidiary thereof is party to a conciliation agreement, consent decree or other agreement or order with any federal, state or local agency or governmental authority with respect to employment practices.

(g) No current or former independent contractor of Immunic or any of its Subsidiaries would reasonably be deemed to be a misclassified employee. Neither Immunic nor any of its Subsidiaries has any material liability with respect to any misclassification of: (A) any Person as an independent contractor rather than as an employee, (B) any employee leased from another employer or (C) any employee currently or formerly classified as exempt from overtime wages. Neither Immunic nor any Subsidiary has taken any action which would constitute a plant closing or mass layoff within the meaning of the WARN Act or similar state or local law, issued any notification of a plant closing or mass layoff required by the WARN Act or similar state or local law, or incurred any liability or obligation under WARN or any similar state or local law that remains unsatisfied. No terminations of employees of Immunic or any of its Subsidiaries prior to the Closing would trigger any notice or other obligations under the WARN Act or similar state or local law.

(h) Except as set forth in Section 2.14(h) of the Immunic Disclosure Schedule, none of the execution and delivery of this Agreement, or the consummation of the Contemplated Transactions or any termination of employment or service or any other event in connection therewith or subsequent thereto will, individually or together or with the occurrence of some other event, (i) result in any payment (including severance, unemployment compensation, golden parachute, bonus or otherwise) becoming due to any employee, independent contractor or director of Immunic, (ii) materially increase or otherwise enhance any benefits otherwise payable by Immunic, (iii) result in the acceleration of the time of payment or vesting of any such benefits, (iv) increase the amount of compensation due to any Person by Immunic or (v) result in the forgiveness in whole or in part of any outstanding loans made by Immunic to any Person.

2.15 Environmental Matters. Immunic and each Immunic Subsidiary is in material compliance with all applicable Environmental Laws, which compliance includes the possession by Immunic of all permits and other Governmental Authorizations required under applicable Environmental Laws and compliance with the terms and conditions thereof other than any failure to be in compliance or possess any such permits and authorized that is not an Immunic Material Adverse Effect. Neither Immunic nor any of its Subsidiaries has received since April 12, 2016 any written notice or other communication (in writing or otherwise), whether from a Governmental Body, citizens group, employee or otherwise, that alleges that Immunic or any of its Subsidiaries is not in compliance with any Environmental Law, and, to the Knowledge of Immunic, there are no circumstances that may prevent or interfere with Immunic s or any of its Subsidiaries compliance with any Environmental Law in the future. To the Knowledge of Immunic: (i) no current or prior owner of any property leased or controlled by Immunic or any of its Subsidiaries has received since April 12, 2016 any written notice or other communication relating to property owned or leased at any time by Immunic or any of its Subsidiaries, whether from a Governmental Body, citizens group, employee or otherwise, that alleges that such current or prior owner or Immunic or any of its Subsidiaries is not in compliance with or has violated any Environmental Law relating to such property and (ii) neither it nor any of its Subsidiaries has any material liability under any Environmental Law.

2.16 Insurance.

(a) Immunic has delivered or made available to Vital accurate and complete copies of all material insurance policies and all material self-insurance programs and arrangements relating to the business, assets, liabilities and operations of Immunic and each Immunic Subsidiary, as of the date of this Agreement. Each of

Table of Contents

such insurance policies is in full force and effect and Immunic and each Immunic Subsidiary are in compliance with the terms thereof. As of the date of this Agreement, other than customary end of policy notifications from insurance carriers, since April 12, 2016, neither Immunic nor any Immunic Subsidiary has received any notice or other communication regarding any actual or possible: (a) cancelation or invalidation of any insurance policy; (b) refusal or denial of any coverage, reservation of rights or rejection of any material claim under any insurance policy; or (c) material adjustment in the amount of the premiums payable with respect to any insurance policy. There is no pending workers compensation or other claim under or based upon any insurance policy of Immunic or any Immunic Subsidiary. Information provided to insurance carriers (in applications and otherwise) on behalf of Immunic and each Immunic Subsidiary is accurate and complete. Immunic and each Immunic Subsidiary have provided timely written notice to the appropriate insurance carrier(s) of each Legal Proceeding pending or threatened against Immunic or any Immunic Subsidiary, and no such carrier has issued a denial of coverage or a reservation of rights with respect to any such Legal Proceeding, or informed Immunic or any Immunic Subsidiary of its intent to do so.

(b) Immunic has delivered to Vital accurate and complete copies of the existing policies (primary and excess) of directors and officers liability insurance maintained by Immunic and each Immunic Subsidiary as of the date of this Agreement (the ***Existing Immunic D&O Policies***). Section 2.16(b) of the Immunic Disclosure Schedule accurately sets forth, as of the date of this Agreement, the most recent annual premiums paid by Immunic and each Immunic Subsidiary with respect to the Existing Immunic D&O Policies. All premiums for the Existing Immunic D&O Policies have been paid as of the date hereof.

2.17 Legal Proceedings; Orders.

(a) There is no pending Legal Proceeding, and, to the Knowledge of Immunic, no Person has threatened in writing to commence any Legal Proceeding: (i) that involves Immunic or any of its Subsidiaries, or to the Knowledge of Immunic, any director or officer of Immunic (in his or her capacity as such) or any of the material assets owned or used by Immunic or its Subsidiaries; or (ii) that challenges, or that would reasonably be expected to have the effect of preventing, delaying, making illegal or otherwise interfering with, the Contemplated Transactions. To the Knowledge of Immunic, no event has occurred, and no claim, dispute or other condition or circumstance exists, that will, or that would reasonably be expected to, give rise to or serve as a basis for the commencement of any such Legal Proceeding.

(b) There is no order, writ, injunction, judgment or decree to which Immunic or any Immunic Subsidiary, or any of the material assets owned or used by Immunic or any Immunic Subsidiary, is subject. To the Knowledge of Immunic, no officer of Immunic or any Immunic Subsidiary is subject to any order, writ, injunction, judgment or decree that prohibits such officer of Immunic from engaging in or continuing any conduct, activity or practice relating to the business of Immunic or any Immunic Subsidiary or to any material assets owned or used by Immunic or any Immunic Subsidiary.

2.18 Inapplicability of Anti-takeover Statutes. The Immunic Board of Directors has taken and will take all actions necessary to ensure that the restrictions applicable to business combinations contained in any applicable Legal Requirements therefor are, and will be, inapplicable to the execution, delivery and performance of this Agreement and to the consummation of the Contemplated Transactions. No other state takeover statute or similar Legal Requirement applies or purports to apply to the Transaction, this Agreement or any of the other Contemplated Transactions.

2.19 No Immunic Financial Advisor. Except as set forth on Section 2.19 of the Immunic Disclosure Schedule, no broker, finder or investment banker is entitled to any brokerage fee, finder s fee, opinion fee, success fee, transaction fee or other fee or commission in connection with the Contemplated Transactions based upon arrangements made by or on behalf of Immunic or any of its Subsidiaries.

2.20 Immunic Subscription Agreement. The Subscription Agreement has not been amended or modified in any manner. Neither Immunic nor, to the Knowledge of Immunic, any of its Affiliates has entered into any

Table of Contents

agreement, side letter or other arrangement relating to the Immunic Pre-Closing Financing, or the transactions contemplated by the Subscription Agreement, other than as set forth in the Subscription Agreement. The respective obligations and agreements contained in the Subscription Agreement have not been withdrawn or rescinded in any respect. The Subscription Agreement is in full force and effect and represents a valid, binding and enforceable obligation of Immunic and, to the Knowledge of Immunic, of each other party thereto, subject to the qualification that such enforceability may be limited by bankruptcy, insolvency, reorganization or other laws of general application relating to or affecting rights of creditors. No event has occurred which, with or without notice, lapse of time or both, would constitute a breach or default on the part of Immunic or, to the Knowledge of Immunic, any other party thereto, under the Subscription Agreement. To the Knowledge of Immunic, no party thereto will be unable to satisfy on a timely basis any term of the Subscription Agreement. There are no conditions precedent related to the consummation of the Immunic Pre-Closing Financing contemplated by the Subscription Agreement, other than the satisfaction or waiver of the conditions expressly set forth in the Subscription Agreement. To the Knowledge of Immunic, the funds from the Immunic Pre-Closing Financing will be made available to Immunic immediately prior to the consummation of the Transaction.

2.21 Disclosure. The information supplied by Immunic and each Immunic Subsidiary for inclusion in the Proxy Statement / Prospectus (including any Immunic Financials) will not, as of the date of the Proxy Statement / Prospectus or as of the date such information is first mailed to Vital Stockholders, (i) contain any untrue statement of any material fact or (ii) omit to state any material fact necessary in order to make such information, in the light of the circumstances under which such information is provided, not false or misleading.

Representations and Warranties of Holders

2.22 Organization and Authority of Holders.

(a) If a Holder is not an individual, such Holder is duly organized, validly existing and in good standing under the laws of the jurisdiction of its formation.

(b) Each Holder has the requisite power and authority (and, in the case of each Holder who is a natural person, capacity) to execute, deliver and perform such Holder s obligations under this Agreement. This Agreement has been duly authorized, executed and delivered by such Holder and represents (assuming the valid authorization, execution and delivery of this Agreement by each other party hereto) the legal, valid and binding obligation of such Holder, enforceable against such Holder in accordance with its terms, subject to applicable bankruptcy, insolvency, reorganization, moratorium and similar laws of general application relating to or affecting creditors rights and subject to general equity principles.

2.23 Title to Shares.

(a) Such Holder is the sole record and beneficial owner of the number of the Immunic Shares indicated opposite such Holder s name on Exhibit A, free and clear of all Encumbrances. The delivery to Vital of such Holder s Immunic Shares pursuant to this Agreement will transfer and convey good and marketable title thereto to Vital, free and clear of all Encumbrances.

(b) Except for this Agreement or as set forth on Section 2.23(b) of the Holder Disclosure Schedule, there are no agreements, arrangements, warrants, options, puts, rights or other commitments, plans or understandings of any character assigned or granted by such Holder or to which such Holder is a party relating to the issuance, sale, purchase, redemption, conversion, exchange, registration, voting or transfer of any of the Immunic Shares.

2.24 Holder Conflicts. Neither the execution and delivery by such Holder of this Agreement or the consummation by such Holder of any of the transactions contemplated hereby, nor compliance by such Holder with this Agreement, or fulfillment of, the terms, conditions and provisions hereof, will:

(a) result in a violation or breach of the terms, conditions or provisions of, conflict with or constitute a default under any provision of, an event of default or an event that, after notice or lapse of time or both, would

result in the creation of rights of acceleration, termination or cancellation or a loss of rights under (i) the organizational documents of such Holder (as and if applicable), (ii) any material Contract to which such Holder is a party or any of its properties is subject or by which such Holder is bound, (iii) any order, judgment, injunction, award, decree, ruling or writ of any Governmental Body to which such Holder is a party or by which it is bound or (iv) any Legal Requirement affecting such Holder; or

(b) require the approval, consent, authorization or act of, the notice to or the making by such Holder of any declaration, filing or registration with, any Governmental Body.

2.25 No Holder Violation or Litigation. Except as set forth on Section 2.25 of the Holder Disclosure Schedule:

(a) there are no Legal Proceedings pending or, to the knowledge of such Holder, threatened against such Holder which are reasonably expected to impair the ability of such Holder to perform its obligations under this Agreement to which it is a party or prevent the consummation of any of the transactions contemplated hereby or thereby;

(b) there are no Legal Proceedings pending or, to the knowledge of such Holder, threatened that question the legality of the transactions contemplated by this Agreement; and

(c) such Holder is not subject to any outstanding order, judgment, injunction, award, decree, ruling or writ of any Governmental Body that prohibits or otherwise restricts the ability of such Holder to consummate fully the transactions contemplated by this Agreement.

2.26 No Brokers for Holders. No broker, finder or investment banker is entitled to any brokerage fee, finder s fee, opinion fee, success fee, transaction fee or other fee or commission in connection with the Contemplated Transactions based upon arrangements made by or on behalf of such Holder or any of its Affiliates.

2.27 Holder Subscription Agreement.

(a) The Subscription Agreement has not been amended or modified by such Holder in any manner. Neither such Holder nor any of its Affiliates has entered into any agreement, side letter or other arrangement relating to the Immunic Pre-Closing Financing, or the transactions contemplated by the Subscription Agreement, other than as set forth in the Subscription Agreement. The respective obligations and agreements of such Holder contained in the Subscription Agreement have not been withdrawn or rescinded in any respect. The Subscription Agreement is in full force and effect and represents a valid, binding and enforceable obligation of such Holder and, to the Knowledge of such Holder, of each other party thereto, subject to the qualification that such enforceability may be limited by bankruptcy, insolvency, reorganization or other laws of general application relating to or affecting rights of creditors. No event has occurred which, with or without notice, lapse of time or both, would constitute a breach or default on the part of such Holder or, to the Knowledge of such Holder, any other party thereto, under the Subscription Agreement. To the Knowledge of such Holder, no party thereto will be unable to satisfy on a timely basis any term of the Subscription Agreement. There are no conditions precedent related to the consummation of the Immunic Pre-Closing Financing contemplated by the Subscription Agreement, other than the satisfaction or waiver of the conditions expressly set forth in the Subscription Agreement (which, in each instance, are applicable to such Holder only to the extent expressly so provided in the Subscription Agreement). Such Holder s funds for the Immunic Pre-Closing Financing will be made available to Immunic immediately prior to the consummation of the Transaction.

(b) Such Holder acknowledges and agrees that Vital is an intended third-party beneficiary of the Subscription Agreement and that Vital may enforce the terms and conditions of the Subscription Agreement to effect the Immunic Pre-Closing Financing pursuant to Section 2.27(c) from the date of this Agreement until the termination of this

Agreement pursuant to Section 9.1. Such Holder further acknowledges and agrees that Vital has entered into this Agreement in reliance on the consummation of the Immunic Pre-Closing Financing in connection with the Closing and such Holder hereto agrees that irreparable damage would occur in the event that

the Immunic Pre-Closing Financing were not performed in accordance with the specific terms of the Subscription Agreement or were otherwise breached.

(c) It is accordingly agreed that if (i) all conditions in Article 6 (other than the condition set forth in Section 6.3) and Article 8 have been satisfied (other than those conditions that by their nature are to be satisfied by actions taken at the Closing), and remain so satisfied and (ii) Vital irrevocably confirms by written notice to a Holder that (A) each of the conditions in Article 7 (other than the condition set forth in Section 7.6 (Immunic Pre-Closing Financing) and those conditions that by their nature are to be satisfied by actions taken at the Closing) has been satisfied or that Vital is willing to waive any such conditions that have not been satisfied (other than the condition set forth in Section 7.6 (Immunic Pre-Closing Financing) and those conditions that by their nature are to be satisfied by actions taken at the Closing) and (B) Vital is prepared to consummate the Closing upon satisfaction of the condition set forth in Section 7.6 (*i.e.*, consummation of the Immunic Pre-Closing Financing), and following such written confirmation, such Holder fails to consummate such Holder s portion of the Immunic Pre-Closing Financing, Vital shall be entitled to seek an injunction or injunctions to prevent any further breach of the Subscription Agreement and to enforce specifically the terms and provisions thereof in any court of the United States or any state or foreign country or state having jurisdiction, this being in addition to any other remedy to which Vital is entitled to at law or in equity, and such Holder waives any bond, surety or other security that might be required of Vital with respect thereto.

2.28 Purchase Entirely for Own Account. This Agreement is made with such Holder in reliance upon such Holder s representation to Vital, which by such Holder s execution of this Agreement, such Holder hereby confirms, that the shares of Vital Common Stock to be acquired by such Holder hereunder will be acquired for investment for such Holder s own account, not as a nominee or agent, and not with a view to the resale or distribution of any part thereof, and that such Holder has no present intention of selling, granting any participation in, or otherwise distributing the same. By executing this Agreement, such Holder further represents that such Holder does not presently have any contract, undertaking, agreement or arrangement with any Person to sell, transfer or grant participations to such Person or to any third Person, with respect to any of the shares of Vital Common Stock to be acquired by such Holder hereunder. Such Holder has not been formed for the specific purpose of acquiring the shares of Vital Common Stock to be acquired by such Holder hereunder.

2.29 Disclosure of Information. Such Holder has had an opportunity to review the Vital SEC Documents (including the certificate of incorporation for Vital as well as Vital s bylaws, which set forth the relative rights and privileges of the holders of Vital Common Stock) and to discuss Vital s business, management, financial affairs, the terms and conditions of the offering of the shares of Vital Common Stock to be acquired by such Holder hereunder, the Transaction as well as the other Contemplated Transactions with Vital s management, and has had an opportunity to review Vital s facilities.

2.30 Restricted Securities. Such Holder understands that the shares of Vital Common Stock to be acquired by such Holder hereunder have not been, and may not be, registered under the Securities Act, by reason of a specific exemption from the registration provisions of the Securities Act which depends upon, among other things, the bona fide nature of the investment intent and the accuracy of the Holder s representations as expressed herein. Such Holder understands that such shares are restricted securities under applicable U.S. federal and state securities laws and that, pursuant to these laws, such Holder must hold such shares indefinitely unless they are registered with the SEC and qualified by state authorities, or an exemption from such registration and qualification requirements is available. Such Holder acknowledges that if an exemption from registration or qualification is available, it may be conditioned on various requirements including, but not limited to, the time and manner of sale, the holding period for such shares, and on requirements relating to Vital which are outside of such Holder s control, and which Vital is under no obligation and may not be able to satisfy.

Table of Contents

2.31 Legends. Such Holder understands that the shares of Vital Common Stock to be acquired by such Holder hereunder may be notated with one or all of the following legends (unless and until such shares are registered under the Securities Act of 1933 in connection with their issuance or transfer):

THE SHARES REPRESENTED HEREBY HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AND HAVE BEEN ACQUIRED FOR INVESTMENT AND NOT WITH A VIEW TO, OR IN CONNECTION WITH, THE SALE OR DISTRIBUTION THEREOF. NO SUCH TRANSFER MAY BE EFFECTED WITHOUT AN EFFECTIVE REGISTRATION STATEMENT RELATED THERETO OR AN OPINION OF COUNSEL IN A FORM SATISFACTORY TO THE COMPANY THAT SUCH REGISTRATION IS NOT REQUIRED UNDER THE SECURITIES ACT OF 1933.

Any legend required by the securities laws of any state to the extent such laws are applicable to such shares.

2.32 Foreign Investors. If such Holder is not a United States person (as defined by Section 7701(a)(30) of the Code), such Holder hereby represents that such Holder has satisfied itself as to the full observance of the laws of its jurisdiction in connection with any invitation to subscribe for the shares of Vital Common Stock to be acquired by such Holder hereunder, including (i) the legal requirements within its jurisdiction for the purchase of such shares, (ii) any foreign exchange restrictions applicable to such purchase, (iii) any governmental or other consents that may need to be obtained, and (iv) the income tax and other tax consequences, if any, that may be relevant to the purchase, holding, redemption, sale, or transfer of such shares. Such Holder s subscription, exchange, tender, transfer and payment for and continued beneficial ownership of such shares will not violate any applicable securities or other laws of such Holder s jurisdiction.

2.33 No General Solicitation. Such Holder has not, either directly or indirectly, including, through a broker or finder, (a) engaged in any general solicitation, or (b) published any advertisement in connection with the offer and sale of the shares of Vital Common Stock to be acquired by such Holder hereunder.

2.34 Residence. If such Holder is an individual, then such Holder resides in the jurisdiction identified in the address of such Holder underneath such Holder s signature to this Agreement. If such Holder is a partnership, corporation, limited liability company or other entity, then the office or offices of such Holder in which its principal place of business is conducted is identified in the address of such Holder underneath such Holder s signature to this Agreement.

2.35 No Other Representations or Warranties. Vital hereby acknowledges and agrees that, except for the representations and warranties contained in this Agreement, neither Immunic or any Holder, nor any other person on behalf of Immunic, makes any express or implied representation or warranty with respect to Immunic or with respect to any other information provided to Vital or its stockholders or Affiliates in connection with the Contemplated Transactions.

ARTICLE 3. REPRESENTATIONS AND WARRANTIES OF VITAL

Vital represents and warrants to Immunic as follows, except as set forth in the written disclosure schedule delivered by Vital to Immunic (the ***Vital Disclosure Schedule***) (it being understood that the representations and warranties in this Article 3 are qualified by: (a) any exceptions and disclosures set forth in the section or subsection of the Vital Disclosure Schedule corresponding to the particular section or subsection in this Article 3 in which such representation and warranty appears; (b) any exceptions or disclosures explicitly cross-referenced in such section or subsection of the Vital Disclosure Schedule by reference to another section or subsection of the Vital Disclosure Schedule; (c) any exceptions or disclosures set forth in any other section or subsection of the Vital Disclosure Schedule to the extent it is reasonably apparent from the wording of such exception or disclosure that such exception

or disclosure qualifies such representation and warranty); and (d) the Vital SEC Documents. The inclusion of any information in the Vital Disclosure Schedule shall not be deemed to be an admission or acknowledgement, in and of itself, that such information is required by the terms hereof to be

Table of Contents

disclosed, is material, has resulted in or would result in a Vital Material Adverse Effect, or is outside the Ordinary Course of Business.

3.1 Subsidiaries; Due Organization; Organizational Documents.

(a) Other than as set forth in Section 3.1(a) of the Vital Disclosure Schedule (the ***Vital Subsidiaries***), Vital does not have any Subsidiaries and Vital does not own any capital stock of, or any equity interest of any nature in, any other Entity. Other than as set forth in Section 3.1(a) of the Vital Disclosure Schedule (i) Vital has not agreed nor is obligated to make, nor is bound by any Contract under which it may become obligated to make, any future investment in or capital contribution to any other Entity and (ii) Vital has not, at any time, been a general partner of, or has otherwise been liable for any of the debts or other obligations of, any general partnership, limited partnership or other Entity.

(b) Each of Vital and the Vital Subsidiaries is a corporation duly organized, validly existing and in good standing under the laws of the jurisdiction of its incorporation and has all necessary power and authority: (i) to conduct its business in the manner in which its business is currently being conducted; (ii) to own and use its assets in the manner in which its assets are currently owned and used; and (iii) to perform its obligations under all Vital Contracts.

(c) Each of Vital and the Vital Subsidiaries are qualified to do business as a foreign corporation, and is in good standing, under the laws of all jurisdictions where the nature of its business requires such qualification other than in jurisdictions where the failure to be so qualified would not constitute a Vital Material Adverse Effect.

(d) Each director and officer of Vital as of the date of this Agreement is set forth in Section 3.1(d) of the Vital Disclosure Schedule.

(e) Vital has delivered or made available to Immunic accurate and complete copies of (i) the certificate of incorporation, bylaws and other charter and organizational documents, including all currently effective amendments thereto, for Vital and the Vital Subsidiaries; and (ii) any code of conduct or similar policy adopted by Vital or by the Vital Board of Directors or any committee thereof. Vital is not in violation of its organizational documents.

3.2 Authority; Vote Required.

(a) Vital has all necessary corporate power and authority to enter into and, subject to the Required Vital Stockholder Vote, as applicable, to perform its obligations under this Agreement. The Vital Board of Directors has: (i) determined that the Transaction is fair to, and in the best interests of, Vital and Vital Stockholders; (ii) duly authorized and approved by all necessary corporate action, the execution, delivery and performance of this Agreement and the Contemplated Transactions; and (iii) recommended the approval of the Vital Stockholder Matters by the Vital Stockholders and directed that the Vital Stockholder Matters be submitted for consideration by Vital Stockholders in connection with the solicitation of the Required Vital Stockholder Vote. This Agreement has been duly executed and delivered by Vital and, assuming the due authorization, execution and delivery by Immunic and the Holders, constitutes the legal, valid and binding obligation of Vital, enforceable against Vital in accordance with its terms, subject to: (1) laws of general application relating to bankruptcy, insolvency and the relief of debtors; and (2) rules of law governing specific performance, injunctive relief and other equitable remedies.

(b) The affirmative vote of the holders of 75% of the outstanding shares of Vital Common Stock may be required for a Vital Legacy Transaction and the affirmative vote of holders of a majority of the outstanding shares of Vital Common Stock would satisfy the thresholds otherwise required to approve the remaining Vital Stockholder Matters (such votes, collectively, the ***Required Vital Stockholder Vote***).

3.3 Non-Contravention; Consents.

(a) The execution and delivery of this Agreement by Vital does not, and the performance of this Agreement by Vital will not, (i) conflict with or violate the certificate of incorporation or bylaws of Vital; (ii) subject to obtaining the Required Vital Stockholder Vote and compliance with the requirements set forth in

Section 3.3(b) below and Section 6.5, conflict with or violate any Legal Requirement applicable to Vital or by which its or any of their respective properties is bound or affected, except for any such conflicts or violations that would not constitute a Vital Material Adverse Effect; or (iii) require Vital to make any filing with or give any notice to a Person or make any payment, or obtain any Consent from a Person, or result in any breach of or constitute a default (or an event that with notice or lapse of time or both would become a default) under, or impair Vital s or its Subsidiaries rights or alter the rights or obligations of any third party under, or give to others any rights of termination, amendment, acceleration or cancelation of, or result in the creation of an Encumbrance on any of the properties or assets of Vital or the Vital Subsidiaries pursuant to, any Vital Material Contract.

(b) No material Consent, order of, or registration, declaration or filing with any Governmental Body is required by or with respect to Vital in connection with the execution and delivery of this Agreement or the consummation of the Contemplated Transactions, except for (i) any required filings under the HSR Act and any foreign antitrust Legal Requirement and (ii) such Consents, orders, registrations, declarations and filings as may be required under applicable federal and state securities laws and by Nasdaq.

3.4 Capitalization.

(a) The authorized capital stock of Vital as of the date of this Agreement consists of: (i) 130,000,000 shares of shares of common stock, $0.0001 par value per share (the ***Vital Common Stock***), of which 42,369,694 shares are issued and outstanding as of the date of this Agreement, and (ii) 20,000,000 shares of preferred stock, $0.0001 par value per share, of which no shares are outstanding as of the date of this Agreement. Vital does not hold any shares of its capital stock in treasury. All of the issued and outstanding shares of Vital Common Stock have been duly authorized and validly issued, and are fully paid and nonassessable. As of the date of this Agreement, there are outstanding Vital Warrants to purchase 240,620 shares of Vital Common Stock.

(b) Except for the Vital 2012 Stock Option Plan, the 2014 Equity Incentive Plan and the 2017 Inducement Equity Incentive Plan (together, the ***Vital Equity Plans***), Vital does not have in effect any stock option plan or any other plan, program, agreement or arrangement providing for any equity-based compensation for any Person. Vital has reserved 9,768,151 shares of Vital Common Stock for issuance under the Vital Equity Plans. As of the date of this Agreement, (i) 510,499 shares have been issued pursuant to the exercise of options and options to purchase 6,154,992 shares have been granted and are currently outstanding, (ii) no shares have been issued pursuant to settlement of Vital RSUs and no shares are issuable upon settlement of currently outstanding RSUs, and (iii) 3,102,660 shares of Vital Common Stock remain available for future issuance pursuant to the Vital Equity Plans. Section 3.4(b) of the Vital Disclosure Schedule sets forth the following information (A) with respect to each Vital Option outstanding that has an exercise price of $1.00 or less, as of the date of this Agreement: (1) the name of the optionee, (2) the number of shares of Vital Common Stock subject to such Vital Option as of the date of this Agreement, (3) the exercise price of such Vital Option, (4) the date on which such Vital Option was granted, (5) the date on which such Vital Option expires, and (6) the vesting schedule applicable to such Vital Option, including the extent vested to date and whether by its terms the vesting of such Vital Option would be accelerated by the Contemplated Transactions; and (B) with respect to each Vital RSU outstanding as of the date of this Agreement: (1) the name of the holder, (2) the vesting terms of each such Vital RSU, (3) the date on which each such Vital RSU was granted, (4) the date on which each such Vital RSU expires, and (5) the vesting schedule applicable to such Vital RSU, including the extent vested to date and whether by its terms the vesting of such Vital RSU would be accelerated by the Contemplated Transactions.

(c) Except for the outstanding Vital Warrants set forth on Section 3.4(a) of the Vital Disclosure Schedule and for the Vital Options and Vital RSUs set forth on Section 3.4(b) of the Vital Disclosure Schedule, as of the date of this Agreement there is no: (i) outstanding subscription, option with an exercise price of $1.00 or more, call, warrant or right (whether or not currently exercisable) to acquire any shares of the capital stock or other securities of Vital;

(ii) outstanding security, instrument or obligation that is or may become convertible into or exchangeable for any shares of the capital stock or other securities of Vital; (iii) stockholder rights plan (or similar plan commonly referred to as a poison pill) or Contract under which Vital is or may become obligated

Table of Contents

to sell or otherwise issue any shares of its capital stock or any other securities; or (iv) condition or circumstance that may give rise to or provide a basis for the assertion of a claim by any Person to the effect that such Person is entitled to acquire or receive any shares of capital stock or other securities of Vital. There are no outstanding or authorized stock appreciation, phantom stock, profit participation, restricted stock units, equity-based awards or other similar rights with respect to Vital.

(d) Except as set forth in Section 3.4(d) of the Vital Disclosure Schedule, (i) none of the outstanding shares of Vital Capital Stock are entitled or subject to any preemptive right, right of repurchase or forfeiture, right of participation, right of maintenance or any similar right; (ii) none of the outstanding shares of Vital Capital Stock are subject to any right of first refusal in favor of Vital, as applicable; (iii) there are no outstanding bonds, debentures, notes or other indebtedness of Vital having a right to vote on any matters on which the Vital Stockholders or the sole stockholder, as applicable, have a right to vote; and (iv) there is no Vital Contract relating to the voting or registration of, or restricting any Person from purchasing, selling, pledging or otherwise disposing of (or from granting any option or similar right with respect to), any shares of Vital Capital Stock. Vital is under no obligation, nor is bound by any Contract pursuant to which it may become obligated, to repurchase, redeem or otherwise acquire any outstanding shares of Vital Capital Stock or other securities other than the granting of Vital Severance RSUs.

(e) All outstanding shares of Vital Capital Stock, as well as all Vital Options, all Vital RSUs and all Vital Warrants, have been issued and granted, as applicable, in material compliance with all applicable securities laws and other applicable Legal Requirements.

3.5 SEC Filings; Financial Statements.

(a) Vital has made available to Immunic accurate and complete copies of all registration statements, proxy statements, Certifications (as defined below) and other statements, reports, schedules, forms and other documents filed by Vital with the SEC since January 1, 2018 (the ***Vital SEC Documents***), other than such documents that can be obtained on the SEC s website at www.sec.gov. All statements, reports, schedules, forms and other documents required to have been filed by Vital or its officers with the SEC have been so filed on a timely basis. As of the time it was filed with the SEC (or, if amended or superseded by a filing prior to the date of this Agreement, then on the date of such filing), each of the Vital SEC Documents complied in all material respects with the applicable requirements of the Securities Act or the Exchange Act (as the case may be) and, as of the time they were filed, none of the Vital SEC Documents contained any untrue statement of a material fact or omitted to state a material fact required to be stated therein or necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading. The certifications and statements required by (A) Rule 13a-14 under the Exchange Act and (B) 18 U.S.C. §1350 (Section 906 of the Sarbanes-Oxley Act) relating to the Vital SEC Documents (collectively, the ***Certifications***) are accurate and complete and comply as to form and content with all applicable Legal Requirements. As used in this Article 3, the term file and variations thereof shall be broadly construed to include any manner in which a document or information is furnished, supplied or otherwise made available to the SEC.

(b) At the time of filing with the SEC, the financial statements (including any related notes) contained or incorporated by reference in the Vital SEC Documents: (i) complied as to form in all material respects with the published rules and regulations of the SEC applicable thereto; (ii) were prepared in accordance with GAAP (except as may be indicated in the notes to such financial statements or, in the case of unaudited financial statements, as permitted by Form 10-Q of the SEC, and except that the unaudited financial statements may not contain footnotes and are subject to normal and recurring year-end adjustments that are not reasonably expected to be material in amount) applied on a consistent basis unless otherwise noted therein throughout the periods indicated; and (iii) fairly present the consolidated financial position of Vital as of the respective dates thereof and the results of operations and cash flows of Vital for the periods covered thereby. Other than as expressly disclosed in the Vital SEC Documents filed

prior to the date hereof, there has been no material change in Vital s accounting methods or principles that would be required to be disclosed in Vital s financial statements in accordance with GAAP. The books of account and other financial records of Vital since January 1, 2014 are true and complete in all material respects.

(c) Except as set forth in Section 3.5(c) of the Vital Disclosure Schedule, from January 1, 2018 through the date hereof, Vital has not received any comment letter from the SEC or the staff thereof or any correspondence from Nasdaq or the staff thereof relating to the delisting or maintenance of listing of the Vital Common Stock on The Nasdaq Global Market.

(d) Vital maintains a system of internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) of the Exchange Act) designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with GAAP, including policies and procedures sufficient to provide reasonable assurance (i) that Vital maintains records that in reasonable detail accurately and fairly reflect Vital s transactions and dispositions of assets, (ii) that transactions are recorded as necessary to permit preparation of financial statements in accordance with GAAP, (iii) that receipts and expenditures are made only in accordance with authorizations of management and the Vital Board of Directors, and (iv) regarding prevention or timely detection of the unauthorized acquisition, use or disposition of Vital s assets that could have a material effect on Vital s financial statements.

(e) Vital s disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) of the Exchange Act) are reasonably designed to ensure that all information required to be disclosed by Vital in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the rules and forms of the SEC, and that all such information is accumulated and communicated to Vital s management as appropriate to allow timely decisions regarding required disclosure.

(f) Vital s independent registered accounting firm has at all times since the date Vital become subject to the applicable provisions of the Sarbanes-Oxley Act been: (i) a registered public accounting firm (as defined in Section 2(a)(12) of the Sarbanes-Oxley Act); and (ii) to the Knowledge of Vital, independent with respect to Vital within the meaning of Regulation S-X under the Exchange Act.

(g) Since January 1, 2014, there have been no formal internal investigations regarding financial reporting or accounting policies and practices discussed with, reviewed by or initiated at the direction of the chief executive officer, chief financial officer, or general counsel of Vital, the Vital Board or any committee thereof, other than ordinary course audits or reviews of accounting policies and practices or internal controls required by the Sarbanes-Oxley Act.

(h) Vital has not disclosed any unresolved comments in the Vital SEC Documents. Except as set forth in Section 3.5(h) of the Vital Disclosure Schedule, Vital is in compliance in all material respects with the applicable provisions of the Sarbanes-Oxley Act and the applicable listing and governance rules and regulations of Nasdaq. Except as set forth on Section 3.5(h) of the Vital Disclosure Schedule, Vital has not received any comment letter from the SEC or any correspondence from Nasdaq relating to the delisting or maintenance of listing of the Vital Common Stock on Nasdaq.

3.6 Absence of Changes. Except as set forth in Section 3.6 of the Vital Disclosure Schedule or as contemplated by this Agreement, between September 30, 2018 and the date of this Agreement Vital has conducted its business in the Ordinary Course of Business and there has not been (a) any event that has had a Vital Material Adverse Effect or any event, condition, change or effect that would reasonably be expected to have, individually or in the aggregate, a Vital Material Adverse Effect or (b) or any action, event or occurrence that would have required consent of Immunic pursuant to Section 4.2(b) of this Agreement had such action, event or occurrence taken place after the execution and delivery of this Agreement.

3.7 Undisclosed Liabilities. As of the date of this Agreement, Vital has no Liability, except for: (a) Liabilities identified as such in the Vital Unaudited Interim Balance Sheet; (b) Liabilities that have been incurred by Vital since the date of the Vital Unaudited Interim Balance Sheet in the Ordinary Course of Business; (c) Liabilities for performance in the Ordinary Course of Business of obligations of Vital under Vital Contracts, including the reasonably expected performance of such Vital Contracts in accordance with their terms (which would not include, for example, any instances of breach or indemnification); (d) Liabilities described in Section 3.7 of the Vital Disclosure Schedule; and (e) Liabilities incurred in connection with any Vital Legacy Transactions and the Contemplated Transactions.

Table of Contents

3.8 Compliance; Permits; Restrictions.

(a) Vital is, and since January 1, 2018, Vital has been in compliance with all applicable Legal Requirements except for any non-compliance that would not constitute a Vital Material Adverse Effect. No investigation, claim, suit, proceeding, audit or other action by any Governmental Body or authority is pending or, to the Knowledge of Vital, threatened against Vital. There is no Contract, judgment, injunction, order or decree binding upon Vital which would reasonably be expected to have the effect of preventing, delaying, making illegal or otherwise interfering with the Transaction or any of the other Contemplated Transactions.

(b) Vital holds all Governmental Authorizations that are material to the operation of its business (collectively, the ***Vital Permits***) as currently conducted. As of the date of this Agreement, Vital is in material compliance with the terms of the Vital Permits. No action, proceeding, revocation proceeding, amendment procedure, writ, injunction or claim is pending or, to the Knowledge of Vital, threatened, which seeks to revoke, limit, suspend, or materially modify any Vital Permit. The rights and benefits of each material Vital Permit will be available to Vital immediately after the Effective Time on terms substantially identical to those enjoyed by Vital as of the date of this Agreement and immediately prior to the Effective Time.

(c) There are no proceedings pending or, to the Knowledge of Vital, threatened with respect to an alleged material violation by Vital of the FDCA, FDA regulations adopted thereunder, the Controlled Substances Act, EMEA or any other similar Legal Requirements promulgated by the FDA or other Drug Regulatory Agency.

(d) Vital holds all required Governmental Authorizations issuable by any Governmental Body necessary for the conduct of its business as currently conducted (the ***Vital Regulatory Permits***) and no such Vital Regulatory Permit has been (i) revoked, withdrawn, suspended, canceled or terminated or (ii) modified in any materially adverse manner. Except as set forth in Section 3.8(d) of the Vital Disclosure Schedule, Vital has not received any written notice or other written communication from any Governmental Body regarding any revocation, withdrawal, suspension, cancelation, termination or material modification of any Vital Regulatory Permit.

(e) Except as set forth in Section 3.8(d) of the Vital Disclosure Schedule, all clinical, pre-clinical and other studies and tests conducted by or on behalf of, or sponsored by, Vital or in which Vital or its products or services have participated were conducted in all material respects in accordance with standard medical and scientific research procedures and in compliance with applicable Legal Requirements.

3.9 Tax Matters.

(a) Each of Vital and the Vital Subsidiaries has timely filed all federal income Tax Returns and other material Tax Returns that they were required to file under applicable Legal Requirements. All such Tax Returns were correct and complete in all material respects and have been prepared in material compliance with all applicable Legal Requirements. Vital is not currently the beneficiary of any extension of time within which to file any Tax Return. No claim has ever been made by an authority in a jurisdiction where Vital or the Vital Subsidiaries do not file Tax Returns that such company is subject to taxation by that jurisdiction.

(b) All material Taxes due and owing by Vital or any of the Vital Subsidiaries on or before the date hereof (whether or not shown on any Tax Return) have been paid. The unpaid Taxes of Vital and the Vital Subsidiaries have been reserved for on the Vital Unaudited Interim Balance Sheet in accordance with GAAP. Since the date of the Vital Unaudited Interim Balance Sheet, Vital has not incurred any Liability for Taxes outside the Ordinary Course of Business or otherwise inconsistent with past custom and practice.

(c) Vital has withheld and paid all Taxes required to have been withheld and paid in connection with any amounts paid or owing to any employee, independent contractor, creditor, stockholder or other third party.

(d) There are no Encumbrances for Taxes (other than Taxes not yet due and payable or Taxes that are being contested in good faith and for which adequate reserves have been made on Vital s Unaudited Interim Balance Sheet) upon any of the assets of Vital.

(e) No material deficiencies for Taxes with respect to Vital have been claimed, proposed or assessed by any Governmental Body in writing. There are no pending (or, based on written notice, threatened) audits,

assessments or other actions for or relating to any liability in respect of Taxes of Vital. No issues relating to Taxes of Vital were raised by the relevant Tax authority in any completed audit or examination that would reasonably be expected to result in a material amount of Taxes in a later taxable period. Vital has delivered or made available to Immunic complete and accurate copies of all Tax Returns, examination reports and statements of deficiencies requested by Immunic. Vital has not waived any statute of limitations in respect of Taxes or agreed to any extension of time with respect to a Tax assessment or deficiency, nor has any request been made in writing for any such extension or waiver.

(f) Since January 1, 2014, all material elections with respect to Taxes affecting Vital or any of the Vital Subsidiaries as of the date hereof are set forth on Section 3.9(f) of the Vital Disclosure Schedule.

(g) Vital has not been a United States real property holding corporation within the meaning of Section 897(c)(2) of the Code during the applicable period specified in Section 897(c)(1)(A)(ii) of the Code.

(h) Neither Vital nor any of the Vital Subsidiaries is a party to any Tax allocation, Tax sharing or similar agreement (including indemnity arrangements), other than commercial contracts entered into in the Ordinary Course of Business with vendors, customers and landlords.

(i) Neither Vital nor any of the Vital Subsidiaries has ever been a member of an affiliated group filing a consolidated, combined or unitary Tax Return (other than a group the common parent of which is Vital) for federal, state, local or foreign Tax purposes. Vital has no Liability for the Taxes of any Person (other than Vital) under Treasury Regulations Section 1.1502-6 (or any similar provision of state, local, or foreign law), as a transferee or successor, by Contract or otherwise.

(j) Neither Vital nor any of the Vital Subsidiaries has distributed stock of another Person, or has had its stock distributed by another Person, in a transaction that was purported or intended to be governed in whole or in part by Section 355 of the Code or Section 361 of the Code.

(k) Neither Vital nor any of the Vital Subsidiaries is a partner for Tax purposes with respect to any joint venture, partnership, or, to the Knowledge of Vital, other arrangement or contract which is treated as a partnership for Tax purposes.

(l) Neither Vital nor any of the Vital Subsidiaries will be required to include any item of income in, or exclude any item of deduction from, taxable income for any period (or any portion thereof) ending after the Closing Date as a result of any (i) installment sale or other open transaction disposition made on or prior to the Closing Date, or (ii) agreement with any Tax authority (including any closing agreement described in Section 7121 of the Code or any similar provision of state, local or foreign law) made or entered into on or prior to the Closing Date.

(m) Neither Vital nor any Vital Subsidiary (A) is a controlled foreign corporation as defined in Section 957 of the Code, (B) is a passive foreign investment company within the meaning of Section 1297 of the Code, or (C) has a permanent establishment (within the meaning of an applicable Tax treaty) or otherwise has an office or fixed place of business in a country other than the country in which it is organized.

(n) Neither Vital nor any Vital Subsidiary has entered into any transaction identified as a listed transaction for purposes of Treasury Regulations Sections 1.6011-4(b)(2) or 301.6111-2(b)(2).

(o) Neither Vital nor any Vital Subsidiary has taken any action, or has knowledge of any fact or circumstance, that would reasonably be expected to prevent the Transaction from qualifying as a transaction described in Section 351(a)

of the Code.

3.10 Employee and Labor Matters; Benefit Plans.

(a) The employment of each of the Vital employees is terminable by Vital at will (or otherwise in accordance with general principles of wrongful termination law). Vital has made available to Immunic accurate and complete copies of all employee manuals and handbooks, disclosure materials, policy statements and other materials relating to the employment of Vital Associates to the extent currently effective and material.

(b) Vital is not, and neither Vital nor any of the Vital Subsidiaries has been, a party to, bound by, or has, or had, a duty to bargain under, any collective bargaining agreement or other Contract with a labor organization, trade or labor union, employees association or similar organization representing any of its employees, and there are no labor organizations, trade or labor unions, employees associations or similar organizations representing, purporting to represent or, to the Knowledge of Vital, seeking to represent any employees of Vital.

(c) Section 3.10(c) of the Vital Disclosure Schedule lists, as of the date of this Agreement, all written and non-written employee benefit plans (as defined in Section 3(3) of ERISA) and all bonus, equity-based, retention, incentive, deferred compensation, retirement or supplemental retirement, profit sharing, severance, golden parachute, disability, life or accident insurance, paid time off, vacation, cafeteria, dependent care, medical care, employee assistance program, education or tuition assistance programs, fringe or employee benefit, and all other compensation, plans, programs, agreements or arrangements, including but not limited to any employment, consulting, independent contractor, severance or executive compensation agreements or arrangements (other than regular salary or wages), written or otherwise, which are currently in effect relating to any present or former employee, independent contractor or director of Vital or any Vital Affiliate, or which is maintained by, administered or contributed to by, or required to be contributed to by, Vital, any of the Vital Subsidiaries or any Vital Affiliate, or under which Vital, any of the Vital Subsidiaries or any Vital Affiliate has incurred or may incur any liability (each, an ***Vital Employee Plan***).

(d) With respect to each Vital Employee Plan, Vital has made available to Immunic a true and complete copy of, to the extent applicable, (i) such Vital Employee Plan (or, where the Plan is not in writing, a description of such Plan), (ii) the three most recent annual reports (Form 5500) as filed with the Internal Revenue Service or Department of Labor, (iii) each currently effective trust agreement related to such Vital Employee Plan, (iv) the most recent summary plan description for each Vital Employee Plan for which such description is required, along with all summaries of material modifications, amendments, resolutions and all other material plan documentation related thereto in the possession of Vital, (v) the most recent Internal Revenue Service determination or opinion letter or analogous ruling under foreign law issued with respect to any Vital Employee Plan, (vi) all material notices, letters or other correspondence to or from any Governmental Body or agency thereof within the last three (3) years; (vii) all non-discrimination tests for the most recent three (3) plan years; (viii) all material written agreements and Contracts currently in effect, including (without limitation) administrative service agreements, group annuity contracts, and group insurance contracts; (ix) all material written employee communications within the past three (3) years, and (x) all registration statements and prospectuses prepared in connection with each Vital Employee Plan.

(e) Each Vital Employee Plan that is intended to be qualified under Section 401(a) of the Code has received a favorable determination or may rely on a favorable opinion letter with respect to such qualified status from the Internal Revenue Service. To the Knowledge of Vital, nothing has occurred that would reasonably be expected to adversely affect the qualified status of any such Vital Employee Plan or the exempt status of any related trust. Each Vital Employee Plan has been maintained in compliance in all material respects with its terms and, both as to form and operations, with all applicable Legal Requirements, including the Code and ERISA. Except as set forth in Section 3.10(e)(i) of the Vital Disclosure Schedule, each Vital Employee Plan can be amended, terminated or otherwise discontinued in accordance with its terms, without material Liability to Vital, the Holders, Immunic or any of their Affiliates (other than ordinary administrative expenses typically incurred in a termination event). Except as set forth in Section 3.10(e)(ii) of the Vital Disclosure Schedule, neither Vital nor any Vital Affiliate has announced its intention to modify or amend any Vital Employee Plan or adopt any arrangement or program which, once established, would come within the definition of a Vital Employee Plan, and to the Knowledge of Vital, each asset held under such Vital Employee Plan may be liquidated or terminated without the imposition of any material redemption fee, surrender charge or comparable Liability. Vital, each of the Vital Subsidiaries and each Vital Affiliate has performed all obligations required to be performed by it under, is not in default under or in violation of, and has no knowledge of any default or violation by any other party to, any of the Vital Employee Plans. Neither Vital, any of the Vital

Subsidiaries, nor any Vital Affiliate is subject to any Liability or penalty under Sections 4976 through 4980I of the Code or Title I of ERISA with respect to any

Table of Contents

of the Vital Employee Plans. All contributions required to be made by Vital, any of the Vital Subsidiaries or any Vital Affiliate to any Vital Employee Plan have been made on or before their due dates (and no further contributions will be due or will have accrued thereunder as of the Closing Date, other than contributions accrued in the ordinary course of business consistent with past practice). No suit, administrative proceeding, action or other litigation has been initiated against, or to the Knowledge of Vital, is threatened, against or with respect to any Vital Employee Plan, including any audit or inquiry by the IRS, United States Department of Labor or other Governmental Body.

(f) Neither Vital, nor any of the Vital Subsidiaries or any Vital Affiliate has engaged in any transaction in violation of Sections 404 or 406 of ERISA or any prohibited transaction, as defined in Section 4975(c)(1) of the Code, for which no exemption exists under Section 408 of ERISA or Section 4975(c)(2) or (d) of the Code, or has otherwise violated the provisions of Part 4 of Title I, Subtitle B of ERISA. Neither Vital, nor any of the Vital Subsidiaries or any Vital Affiliate has knowingly participated in a violation of Part 4 of Title I, Subtitle B of ERISA by any plan fiduciary of any Vital Employee Plan subject to ERISA and neither Vital, nor any of the Vital Subsidiaries or any Vital Affiliate has been assessed any civil penalty under Section 502(l) of ERISA.

(g) No Vital Employee Plan is subject to Title IV or Section 302 of ERISA or Section 412 of the Code, and neither Vital, nor any of the Vital Subsidiaries or any Vital Affiliate has ever maintained, contributed to or partially or completely withdrawn from, or incurred any obligation or liability with respect to, any such plan. No Vital Employee Plan is a Multiemployer Plan, and neither Vital, nor any of the Vital Subsidiaries or any Vital Affiliate has ever contributed to or had an obligation to contribute, or incurred any liability in respect of a contribution, to any Multiemployer Plan. No Vital Employee Plan is a Multiple Employer Plan.

(h) No Vital Employee Plan provides for medical or death benefits beyond termination of service or retirement, other than (i) pursuant to COBRA or an analogous state law requirement or (ii) death or retirement benefits under a Vital Employee Plan qualified under Section 401(a) of the Code. Neither Vital nor any Vital Affiliate sponsors or maintains any self-funded employee benefit plan. No Vital Employee Plan is subject to any Legal Requirement of any foreign jurisdiction outside of the United States.

(i) To the Knowledge of Vital, no payment pursuant to any Vital Employee Plan or other arrangement to any service provider (as such term is defined in Section 409A of the Code and the United States Treasury Regulations and IRS guidance thereunder) from Vital or any of the Vital Subsidiaries, including the grant, vesting or exercise of any stock option, would subject any Person to tax pursuant to Section 409A(1) of the Code, whether pursuant to the Contemplated Transactions or otherwise.

(j) With respect to Vital Options granted pursuant to the Vital Equity Plans, (i) each Vital Option intended to qualify as an incentive stock option under Section 422 of the Code so qualifies, (ii) each grant of a Vital Option was duly authorized no later than the date on which the grant of such Vital Option was by its terms to be effective by all necessary corporate action, including, as applicable, approval by the Vital Board of Directors (or a duly constituted and authorized committee thereof) and any required stockholder approval by the necessary number of votes or written consents, and the award agreement governing such grant (if any) was duly executed and delivered by each party thereto, (iii) each Vital Option grant was made in accordance with the terms of the Vital Equity Plans, the Exchange Act and all other applicable Legal Requirements, including the rules of Nasdaq and any other exchange on which Vital securities are traded, (iv) the per share exercise price of each Vital Option was not less than the fair market value of a share of Vital Common Stock on the date on which the grant of such Vital Option was by its terms to be effective and (v) each such Vital Option grant was properly accounted for in accordance with GAAP in the financial statements (including the related notes) of Vital and disclosed in Vital filings with the Securities and Exchange Commission in accordance with the Exchange Act and all other applicable Legal Requirements. Vital has not knowingly granted, and there is no and has been no policy or practice of Vital of granting, Vital Options prior to, or otherwise coordinating the

grant of Vital Options with, the release or other public announcement of material information regarding Vital or its results of operations or prospects.

(k) No Vital Options, stock appreciation rights or other equity-based awards issued or granted by Vital are subject to the requirements of Code Section 409A. Each nonqualified deferred compensation plan (as such term is defined under Section 409A(d)(1) of the Code and the guidance thereunder) maintained by or under which Vital or any of the Vital Subsidiaries makes, is obligated to make or promises to make, payments (each, a ***Vital 409A Plan***) complies in all material respects, in both form and operation, with the requirements of Code Section 409A and the guidance thereunder. No payment to be made under any Vital 409A Plan is, or to the Knowledge of Vital could reasonably be, subject to the penalties of Code Section 409A(a)(1).

(l) Vital is in compliance with all of its bonus, commission and other compensation plans and has paid any and all amounts required to be paid under such plans, including any and all bonuses and commissions (or pro rata portion thereof) that may have accrued or been earned through the calendar quarter preceding the Effective Time, and is not liable for any payments, taxes or penalties for failure to comply with any of the terms or conditions of such plans or the laws governing such plans.

(m) Each of Vital and the Vital Subsidiaries has complied in all material respects with all state and federal laws applicable to employees and the Vital Employees Plans, including but not limited to COBRA, FMLA, CFRA, HIPAA, the Women s Health and Cancer Rights Act of 1998, the Newborn s and Mothers Health Protection Act of 1996, and any similar provisions of state law applicable to its employees. To the extent required under HIPAA and the regulations issued thereunder, Vital and each of the Vital Subsidiaries has, prior to the Closing Date, performed all obligations under the medical privacy rules of HIPAA (45 C.F.R. Parts 160 and 164), the electronic data interchange requirements of HIPAA (45 C.F.R. Parts 160 and 162), and the security requirements of HIPAA (45 C.F.R. Part 142). Neither Vital nor any of the Vital Subsidiaries has any material unsatisfied obligations to any of its employees or qualified beneficiaries pursuant to COBRA, HIPAA or any state law governing health care coverage or extension. Vital and each Vital Affiliate is in compliance in all material respects with all applicable requirements of the Patient Protection and Affordable Care Act of 2010, as amended, and all regulations thereunder (together, the ***ACA***), including all requirements relating to eligibility waiting periods and the offer of or provision of minimum essential coverage that is compliant with Section 36B(c)(2)(C) of the Code and the regulations issued thereunder to full-time employees as defined in Section 4980H(c)(4) of the Code and the regulations issued thereunder. No excise tax or penalty under the ACA, including Sections 4980D and 4980H of the Code, is outstanding, has accrued, or has arisen with respect to any period prior to the Closing, with respect to any Vital Employee Plan. Neither Vital nor any Vital Affiliate has any unsatisfied obligations to any employees or qualified beneficiaries pursuant to the ACA, or any state or local Legal Requirement governing health care coverage or benefits that would reasonably be expected to result in any material liability to Vital. Each of Vital and its Vital Affiliates has maintained all records necessary to demonstrate its compliance with the ACA.

(n) Vital is, and the Vital Subsidiaries were in material compliance with all applicable foreign, federal, state and local laws, rules, regulations, orders, rulings, judgments, decrees or arbitration awards respecting employment, employment practices, terms and conditions of employment, worker classification, tax withholding, prohibited discrimination, equal employment, fair employment practices, meal and rest periods, immigration status, employee safety and health, wages (including overtime wages), compensation, hours of work, labor relations, leave of absence requirements, occupational health and safety, privacy, harassment, retaliation, immigration and wrongful discharge and in each case, with respect to employees: (i) has withheld and reported all amounts required by law or by agreement to be withheld and reported with respect to wages, salaries and other payments to employees, (ii) is not liable for any arrears of wages, severance pay or any Taxes or any penalty of any material amount for failure to comply with any of the foregoing, and (iii) is not liable for any payment to any trust or other fund governed by or maintained by or on behalf of any Governmental Body, with respect to unemployment compensation benefits, social security or other benefits or obligations for employees (other than routine payments to be made in the normal course of business and consistent with past practice). There are no actions, suits, claims or administrative matters pending, or

to the Knowledge of Vital, threatened or reasonably anticipated against Vital relating to any employee, employment agreement, independent contractor, independent contractor agreement or Vital Employee Plan. There are no pending or, to the Knowledge of Vital, threatened or reasonably anticipated claims or actions against Vital or any trustee of Vital under any worker s

compensation policy or long-term disability policy. Vital is not a party to a conciliation agreement, consent decree or other agreement or order with any federal, state, or local agency or Governmental Body with respect to employment practices.

(o) No current or former independent contractor of Vital or any of the Vital Subsidiaries would reasonably be deemed to be a misclassified employee. Except as set forth on Section 3.10(o) of the Vital Disclosure Schedule, no independent contractor is eligible to participate in any Vital Employee Plan. Neither Vital nor any of the Vital Subsidiaries has material liability, including under any Vital Employee Plan, with respect to any misclassification of: (A) any Person as an independent contractor rather than as an employee, (B) any employee leased from another employer, or (C) any employee currently or formerly classified as exempt from overtime wages. Neither Vital nor any of the Vital Subsidiaries has taken any action which would constitute a plant closing or mass layoff within the meaning of the WARN Act or similar state or local law, issued any notification of a plant closing or mass layoff required by the WARN Act or similar state or local law, or incurred any liability or obligation under WARN or any similar state or local law that remains unsatisfied. No terminations of employees of Vital prior to the Closing would trigger any notice or other obligations under the WARN Act or similar state or local law.

(p) There has never been, nor has there been any threat of, any strike, slowdown, work stoppage, lockout, job action, union organizing activity, or any similar activity or dispute, affecting Vital or any of the Vital Subsidiaries. No event has occurred, and no condition or circumstance exists, that might directly or indirectly be likely to give rise to or provide a basis for the commencement of any such strike, slowdown, work stoppage, lockout, job action, union organizing activity, question concerning representation or any similar activity or dispute.

(q) Vital is not, and neither Vital nor any of the Vital Subsidiaries, has been, engaged in any unfair labor practice within the meaning of the National Labor Relations Act. There is no Legal Proceeding, claim, labor dispute or grievance pending or, to the Knowledge of Vital, threatened or reasonably anticipated relating to any employment contract, privacy right, labor dispute, wages and hours, leave of absence, plant closing notification, workers compensation policy, long-term disability policy, harassment, retaliation, immigration, employment statute or regulation, safety or discrimination matter involving any Vital Associate, including charges of unfair labor practices or discrimination complaints that individually or in the aggregate would result in material Liability to Vital.

(r) There is no Contract or arrangement to which Vital or any Vital Affiliate is a party or by which it is bound to compensate any of its current or former employees, independent contractors or directors for additional income or excise taxes paid pursuant to Sections 409A or 4999 of the Code.

(s) Neither Vital nor any Vital Affiliate is a party to any Contract that has resulted or would reasonably be expected to result, separately or in the aggregate, in the payment of (i) any excess parachute payment within the meaning of Section 280G of the Code and (ii) any amount the deduction for which would be disallowed under Section 162(m) of the Code.

(t) Except as set forth in Section 3.10(t) of the Vital Disclosure Schedule, none of the execution and delivery of this Agreement, or the consummation of the Contemplated Transactions or any termination of employment or service or any other event in connection therewith or subsequent thereto will, individually or together or with the occurrence of some other event, (i) result in any payment (including severance, unemployment compensation, golden parachute, bonus or otherwise) becoming due to any employee, independent contractor or director of Vital, (ii) materially increase or otherwise enhance any benefits otherwise payable by Vital, (iii) result in the acceleration of the time of payment or vesting of any such benefits, except as required under Section 411(d)(3) of the Code, (iv) increase the amount of compensation due to any Person by Vital or (v) result in the forgiveness in whole or in part of any outstanding loans made by Vital to any Person.

3.11 Environmental Matters. Vital is in material compliance with all applicable Environmental Laws, which compliance includes the possession by Vital of all permits and other Governmental Authorizations required under applicable Environmental Laws and compliance with the terms and conditions thereof other than

any failure to be in compliance or possess any such permits and authorized that is not a Vital Material Adverse Effect. Neither Vital nor any of the Vital Subsidiaries has received since January 1, 2013 any written notice or other communication (in writing or otherwise), whether from a Governmental Body, citizens group, employee or otherwise, that alleges that Vital is not in material compliance with any Environmental Law, and, to the Knowledge of Vital, there are no circumstances that may prevent or interfere with Vital s compliance with any Environmental Law in the future. To the Knowledge of Vital: (i) no current or prior owner of any property leased or controlled by Vital or any of the Vital Subsidiaries has received since January 1, 2013, any written notice or other communication relating to property owned or leased at any time by Vital, whether from a Governmental Body, citizens group, employee or otherwise, that alleges that such current or prior owner or Vital or any of the Vital Subsidiaries is not in compliance with or has violated any Environmental Law relating to such property and (ii) neither Vital nor any of the Vital Subsidiaries has any material liability under any Environmental Law.

3.12 Insurance.

(a) Vital has made available to Immunic accurate and complete copies of all material insurance policies and all material self-insurance programs and arrangements relating to the business, assets, liabilities and operations of Vital, in effect as of the date of this Agreement. Each of such insurance policies is in full force and effect and Vital is in compliance with the terms thereof. As of the date of this Agreement, other than customary end of policy notifications from insurance carriers, since January 1, 2018, Vital has not received any notice or other communication regarding any actual or possible: (a) cancelation or invalidation of any insurance policy; (b) refusal or denial of any coverage, reservation of rights or rejection of any material claim under any insurance policy; or (c) material adjustment in the amount of the premiums payable with respect to any insurance policy. There is no pending workers compensation or other claim under or based upon any insurance policy of Vital. Since January 1, 2018, all information provided to insurance carriers (in applications and otherwise) on behalf of Vital has been accurate and complete. Vital has provided timely written notice to the appropriate insurance carrier(s) of each Legal Proceeding pending or threatened in writing against Vital, and no such carrier has issued a denial of coverage or a reservation of rights with respect to any such Legal Proceeding, or informed Vital of its intent to do so. As of the date of this Agreement, there are no outstanding or pending claims under any insurance policy of Vital.

(b) Vital has delivered to Immunic accurate and complete copies of the existing policies (primary and excess) of directors and officers liability insurance maintained by Vital and each Vital Subsidiary as of the date of this Agreement (the ***Existing Vital D&O Policies***). Section 3.12(b) of the Vital Disclosure Schedule accurately sets forth, as of the date of this Agreement, the most recent annual premiums paid by Vital and each Vital Subsidiary with respect to the Existing Vital D&O Policies. All premiums for the Existing Vital D&O Policies have been paid.

3.13 Legal Proceedings; Orders.

(a) Except as set forth in Section 3.13(a) of the Vital Disclosure Schedule, there is no pending Legal Proceeding, and, to the Knowledge of Vital, no Person has threatened in writing to commence any Legal Proceeding: (i) that involves Vital, or to the Knowledge of Vital, any director or officer of Vital (in his or her capacity as such) or any of the material assets owned or used by Vital; or (ii) that challenges, or that would reasonably be expected to have the effect of preventing, delaying, making illegal or otherwise interfering with, the Contemplated Transactions. To the Knowledge of Vital, no event has occurred, and no claim, dispute or other condition or circumstance exists, that will, or that would reasonably be expected to, give rise to or serve as a basis for the commencement of any such Legal Proceeding.

(b) There is no order, writ, injunction, judgment or decree to which Vital or any of the material assets owned or used by Vital, is subject. To the Knowledge of Vital, no officer of Vital is subject to any order, writ, injunction, judgment

or decree that prohibits such officer from engaging in or continuing any conduct, activity or practice relating to the business of Vital or to any material assets owned or used by Vital.

3.14 Real Property; Leasehold. Neither Vital nor any of its Subsidiaries owns any real property. Vital has made available to Immunic (a) an accurate and complete list of all real properties with respect to which Vital

Table of Contents

directly or indirectly holds a valid leasehold interest as well as any other real estate that is in the possession of or leased by Vital, and (b) copies of all leases under which any such real property is possessed (the ***Vital Leases***), each of which is in full force and effect, with no existing material default thereunder.

3.15 Intellectual Property. To the Knowledge of Vital and its Subsidiaries, the manufacture, marketing, license, or sale of any product or service sold by Vital or any of its Subsidiaries (a) did not violate or constitute a breach of any license or agreement between Vital or its Subsidiaries and any third party, and, (b) did not infringe or misappropriate any Intellectual Property right of any other party. Vital and its Subsidiaries have not received any written notice asserting that Vital or any of its Subsidiaries have infringed or misappropriated the rights of any other Person.

3.16 Material Contracts.

(a) Section 3.16(a) of the Vital Disclosure Schedule lists the following Vital Contracts, effective as of the date of this Agreement (each, a ***Vital Material Contract*** and collectively, the ***Vital Material Contracts***):

(i) each Vital Contract relating to any material bonus, deferred compensation, severance, incentive compensation, pension, profit-sharing or retirement plans, or any other employee benefit plans or arrangements;

(ii) each Vital Contract requiring payments by Vital or its Subsidiaries after the date of this Agreement pursuant to its express terms relating to the employment of, or the performance of employment-related services by, any Person, including any employee, consultant or independent contractor, or entity providing employment related, consulting or independent contractor services, not terminable by Vital or its Subsidiaries on thirty (30) calendar days or less notice without liability, except to the extent general principles of wrongful termination law may limit Vital s, Vital s Subsidiaries or such successor s ability to terminate employees at will;

(iii) each Vital Contract relating to any agreement or plan, including any stock option plan, stock appreciation right plan or stock purchase plan, any of the benefits of which will be increased, or the vesting of benefits of which will be accelerated, by the occurrence of any of the Contemplated Transactions (either alone or in conjunction with any other event, such as termination of employment), or the value of any of the benefits of which will be calculated on the basis of any of the Contemplated Transactions;

(iv) each Vital Contract relating to any agreement of indemnification or guaranty not entered into in the Ordinary Course of Business;

(v) each Vital Contract containing (A) any covenant limiting the freedom of Vital, its Subsidiaries or any successor thereto to engage in any line of business or compete with any Person, (B) any most-favored pricing arrangement, (C) any exclusivity provision, or (D) any non-solicitation provision;

(vi) each Vital Contract relating to capital expenditures and requiring payments after the date of this Agreement in excess of $50,000 pursuant to its express terms and not cancelable without penalty;

(vii) each Vital Contract relating to any mortgages, indentures, loans, notes or credit agreements, security agreements or other agreements or instruments relating to the borrowing of money or extension of credit or creating any material Encumbrances with respect to any assets of Vital or any Vital Subsidiary or any loans or debt obligations with officers or directors of Vital;

(viii) each Vital Lease; or

(ix) any other Vital Contract that is not terminable at will (with no penalty or payment) by Vital and which involves payment or receipt by Vital or its Subsidiaries after the date of this Agreement under any such agreement, contract or commitment of more than $25,000 in the aggregate, or obligations after the date of this Agreement in excess of $100,000 in the aggregate.

(b) Vital has delivered or made available to Immunic accurate and complete (except for applicable redactions thereto) copies of all Vital Material Contracts, including all amendments thereto. There are no Vital

Table of Contents

Material Contracts that are not in written form. Neither Vital nor any of its Subsidiaries has, nor to Vital s Knowledge, as of the date of this Agreement has any other party to an Vital Material Contract, breached, violated or defaulted under, or received notice that it has breached, violated or defaulted under, any of the terms or conditions of any Vital Material Contract in such manner as would permit any other party to cancel or terminate any such Vital Material Contract, or would permit any other party to seek damages that would result in an Vital Material Adverse Effect. As to Vital and its Subsidiaries, as of the date of this Agreement, each Vital Material Contract is valid, binding, enforceable and in full force and effect, subject to: (i) laws of general application relating to bankruptcy, insolvency and the relief of debtors; and (ii) rules of law governing specific performance, injunctive relief and other equitable remedies.

3.17 Shell Company Status. Vital is not, and has not been at any time, an issuer identified in Rule 144(i)(1)(i) of the Securities Act or a shell company as defined in Rule 12b-2 of the Exchange Act.

3.18 No Financial Advisor. Except as set forth on Section 3.18 of the Vital Disclosure Schedule, no broker, finder or investment banker is entitled to any brokerage fee, finder s fee, opinion fee, success fee, transaction fee or other fee or commission in connection with the Contemplated Transactions based upon arrangements made by or on behalf of Vital.

3.19 Anti-Corruption Matters. Since January 1, 2014, none of Vital, or any of its directors, officers or, to the Knowledge of Vital, employees or agents has: (a) used any funds for unlawful contributions, gifts, entertainment, or other unlawful payments relating to an act by any Governmental Body; (b) made any unlawful payment to any foreign or domestic government official or employee or to any foreign or domestic political party or campaign or violated any provision of the U.S. Foreign Corrupt Practices Act of 1977, as amended; or (c) made any other unlawful payment under any applicable Legal Requirement relating to anti-corruption, bribery, or similar matters. Since January 1, 2014, Vital has not disclosed to any Governmental Body that it violated or may have violated any Legal Requirement relating to anti-corruption, bribery, or similar matters. To the Knowledge of Vital, no Governmental Body is investigating, examining, or reviewing Vital s compliance with any applicable provisions of any Legal Requirement relating to anti-corruption, bribery, or similar matters.

3.20 Disclosure. The information supplied by Vital for inclusion in the Proxy Statement / Prospectus will not, as of the date of the Proxy Statement / Prospectus or as of the date such information is first mailed to Vital Stockholders, (i) contain any untrue statement of any material fact or (ii) omit to state any material fact necessary in order to make such information, in the light of the circumstances under which such information is provided, not false or misleading.

3.21 Valid Issuance. The Vital Common Stock to be issued in the Transaction will, when issued in accordance with the provisions of this Agreement be validly issued, fully paid and nonassessable.

3.22 Opinion of Financial Advisor. The Vital Board of Directors (in its capacity as such) has received an opinion of Ladenburg Thalmann & Co., financial advisor to Vital, to the effect that, as of the date of such opinion and based upon and subject to the various assumptions, qualifications and limitations set forth therein, the Exchange Ratio is fair, from a financial point of view, to the Vital Stockholders.

ARTICLE 4. CERTAIN COVENANTS OF THE PARTIES

4.1 Access and Investigation. Subject to the terms of the Confidentiality Agreement which the Parties agree will continue in full force following the date of this Agreement, during the period commencing on the date of this Agreement and continuing until the earlier of the termination of this Agreement in accordance with the terms hereto and the Effective Time (the ***Pre-Closing Period***), upon reasonable notice each Party shall, and shall use commercially reasonable efforts to cause such Party s Representatives to:

(a) provide the other Party and such other Party s Representatives with reasonable access during normal business hours to such Party s Representatives, personnel and assets and to all existing books, records, Tax Returns, work papers and other documents and information relating to such Party and its Subsidiaries;

Table of Contents

(b) provide the other Party and such other Party s Representatives with such copies of the existing books, records, Tax Returns, work papers, product data, and other documents and information relating to such Party and its Subsidiaries, and with such additional financial, operating and other data and information regarding such Party and its Subsidiaries as the other Party may reasonably request; and

(c) permit the other Party s officers and other employees to meet, upon reasonable notice and during normal business hours, with the chief financial officer and other officers and managers of such Party responsible for such Party s financial statements and the internal controls of such Party to discuss such matters as the other Party may deem necessary or appropriate in order to enable the other Party to satisfy its obligations under the Sarbanes-Oxley Act and the rules and regulations relating thereto. Without limiting the generality of any of the foregoing, during the Pre-Closing Period, each Party shall promptly make available to the other Party copies of:

(i) the unaudited monthly consolidated balance sheets of such Party as of the end of each calendar month and the related unaudited monthly consolidated statements of operations and statements of stockholders equity for such calendar month, which shall be delivered within thirty (30) calendar days after the end of such calendar month, or such longer periods as the Parties may agree to in writing;

(ii) all material operating and financial reports prepared by such Party for its senior management, including sales forecasts, marketing plans, development plans, discount reports, write-off reports, hiring reports and capital expenditure reports prepared for its management;

(iii) any written materials or communications sent by or on behalf of a Party to its stockholders;

(iv) any material notice, document or other communication sent by or on behalf of a Party to any party to any Vital Material Contract or Immunic Material Contract, as applicable, or sent to a Party by any party to any Vital Material Contract or Immunic Material Contract, as applicable (other than any communication that relates solely to routine commercial transactions between such Party and the other party to any such Vital Material Contract or Immunic Material Contract, as applicable, and that is of the type sent in the Ordinary Course of Business and consistent with past practices);

(v) any notice, report or other document filed with or otherwise furnished, submitted or sent to any Governmental Body on behalf of a Party in connection with the Transaction or any of the Contemplated Transactions;

(vi) any non-privileged notice, document or other communication sent by or on behalf of, or sent to, a Party relating to any pending or threatened Legal Proceeding involving or affecting such Party; and

(vii) any material notice, report or other document received by a Party from any Governmental Body.

(d) Notwithstanding the foregoing, (i) any Party may restrict the foregoing access to the extent that any Legal Requirement applicable to such Party requires such Party to restrict or prohibit access to any of such Party s properties or information and (ii) neither Party nor its respective Representatives or Subsidiaries shall be required to provide access to or disclose information where such access or disclosure would jeopardize the protection of attorney-client privilege (it being agreed that the Parties shall use their commercially reasonable efforts to cause such access or information to be provided in a manner that would not result in such jeopardy or contravention).

4.2 Operation of Vital s Business.

(a) Except as set forth on Section 4.2(a) of the Vital Disclosure Schedule, as permitted or contemplated by this Agreement, or as required by applicable Legal Requirements, during the Pre-Closing Period, Vital shall: (i) conduct its business and operations in the Ordinary Course of Business; (ii) continue to pay outstanding accounts payable and other current Liabilities (including payroll) when due and payable; and (iii) conduct its business and operations in compliance with all applicable Legal Requirements and the requirements of all Vital Contracts that constitute Vital Material Contracts.

(b) Without limiting the generality of the foregoing, during the Pre-Closing Period, except as set forth on Section 4.2(b) of the Vital Disclosure Schedule, as permitted or contemplated by this Agreement, or as

required by applicable Legal Requirements, Vital shall not, without the prior written consent of Immunic (which consent shall not be unreasonably withheld or delayed):

(i) (A) declare, accrue, set aside or pay any dividend or made any other distribution in respect of any shares of Vital Capital Stock or (B) repurchase, redeem or otherwise reacquire any shares of its capital stock or other securities;

(ii) except for the granting of Vital Severance RSUs (if any), sell, issue or grant, or authorize the issuance of: (A) any capital stock or other security (except for shares of Vital Common Stock issued upon the settlement of Vital RSUs or upon the valid exercise of Vital Options or Vital Warrants outstanding as of the date of this Agreement), (B) any option, warrant or right to acquire any capital stock or any other security, (C) any equity-based award or instrument convertible into or exchangeable for any capital stock or other security, or (D) any debt securities or any rights to acquire any debt securities;

(iii) amend the certificate of incorporation, bylaws or other charter or organizational documents of Vital, or effect or be a party to any merger, consolidation, share exchange, business combination, recapitalization, reclassification of shares, stock split, reverse stock split or similar transaction;

(iv) form any Subsidiary or acquire any equity interest or other interest in any other Entity;

(v) (A) lend money to any Person, (B) incur or guarantee any indebtedness for borrowed money, (C) guarantee any debt securities of others, or (D) make any material capital expenditure or commitment;

(vi) except as necessary to effect the Vital Severance RSUs, (A) adopt, establish or enter into any Vital Employee Plan, (B) cause or permit any Vital Employee Plan to be amended other than as required by law, including in order to make amendments for the purposes of Section 409A of the Code, subject to prior review and approval (with such approval not to be unreasonably withheld, conditioned or delayed) by Immunic, (C) hire any additional employees or independent contractors or enter into or amend the term of any employment or consulting agreement with any employee or independent contractor other than as reasonably necessary for the completion of the Contemplated Transactions, (D) enter into any Contract with a labor union or collective bargaining agreement, (E) except as provided in the Vital Disclosure Schedule, pay any bonus or make any profit-sharing or similar payment to (other than in the Ordinary Course of Business), or increase the amount of the wages, salary, commissions, fringe benefits or other compensation or remuneration payable to, any of its directors or employees, (F) except as provided in the Vital Disclosure Schedule, accelerate the vesting of or entitlement to any payment, award, compensation or benefit with respect to any Vital Associate, (G) except as provided in the Vital Disclosure Schedule, pay or increase the severance or change of control benefits offered to any Vital Associate, or (H) provide or make any Tax-related gross-up payment, *provided*, that Vital may pay those Terminated Vital Associate Payments set forth on Schedule 5.5(a) to the Terminated Vital Associates in connection with their termination of employment or service;

(vii) enter into any material transaction outside the Ordinary Course of Business;

(viii) acquire any material asset nor sell, lease, or otherwise irrevocably dispose of any material assets or properties, or grant any Encumbrance with respect to such assets or properties;

(ix) (A) make, change or revoke any material Tax election, (B) file any material amendment to any Tax Return, (C) adopt or change any accounting method in respect of Taxes, (D) change any annual Tax accounting period, (E) enter into any Tax allocation agreement, Tax sharing agreement or Tax indemnity agreement, other than commercial contracts entered into in the Ordinary Course of Business with vendors, customers or landlords, (F) enter into any closing agreement with respect to any Tax, (G) settle or compromise any claim, notice, audit report or

assessment in respect of material Taxes, (H) apply for or enter into any ruling from any Tax authority with respect to Taxes, (I) surrender any right to claim a material Tax refund, or (J) consent to any extension or waiver of the statute of limitations period applicable to any material Tax claim or assessment;

(x) except as permitted in the Ordinary Course of Business, enter into, amend or terminate any Vital Contract that, if effective as of the date hereof, would constitute a Vital Material Contract;

Table of Contents

(xi) initiate or settle any Legal Proceeding;

(xii) incur any Liabilities or otherwise take any actions other than in the Ordinary Course of Business, other than as may occur in connection with this Agreement or the Transaction; or

(xiii) agree, resolve or commit to do any of the foregoing.

(c) Notwithstanding any provision herein to the contrary (including the foregoing provisions of this Section 4.2), Vital may engage in the sale, license, other divestiture and/or winding down of the Vital Legacy Business and/or the sale, license or other disposition of any Vital Legacy Assets (any such sale, license, divestiture or disposition referred to herein as a ***Vital Legacy Transaction***); provided, however, that to the extent any Vital Legacy Transaction results in obligations of Vital that will extend beyond the Closing, the terms of such sale, license, divestiture or disposition shall be reasonably acceptable to Immunic.

4.3 Operation of Immunic s Business.

(a) Except as set forth on Section 4.3(a) of the Immunic Disclosure Schedule, as required or permitted by this Agreement, or as required by applicable Legal Requirements, during the Pre-Closing Period, Immunic shall and shall cause its Subsidiaries to conduct its business and operations: (i) in the Ordinary Course of Business; and (ii) in compliance with all applicable Legal Requirements and the requirements of all Immunic Contracts that constitute Immunic Material Contracts.

(b) Without limiting the generality of the foregoing, during the Pre-Closing Period, except as set forth on Section 4.3(b) of the Immunic Disclosure Schedule, as required or permitted by this Agreement, or as required by applicable Legal Requirements, Immunic shall not, nor shall it permit any of its Subsidiaries to, without the prior written consent of Vital (which consent shall not be unreasonably withheld or delayed):

(i) (A) declare, accrue, set aside or pay any dividend or made any other distribution in respect of any Immunic Shares or (B) repurchase, redeem or otherwise reacquire any shares of its capital stock or other securities except pursuant to Immunic Contracts existing as of the date of this Agreement;

(ii) sell, issue or grant, or authorize the issuance of: (A) any capital stock or other security (except in connection with the Immunic Pre-Closing Financing or the Immunic Exit Bonus Agreements), (B) any option, warrant or right to acquire any capital stock or any other security, (C) any equity-based award or instrument convertible into or exchangeable for any capital stock or other security, or (D) any debt securities or any rights to acquire any debt securities;

(iii) amend or modify any organizational documents of Immunic (other than in connection with the Immunic Pre-Closing Financing), including the articles of association, memorandum of association, certificate of incorporation, bylaws, or other charter or documents with the Commercial Register, or effect or be a party to any merger, consolidation, share exchange, business combination, recapitalization, reclassification of shares, stock split, reverse stock split or similar transaction;

(iv) form any Subsidiary or acquire any equity interest or other interest in any other Entity other than in the Ordinary Course of Business;

(v) (A) lend money to any Person, (B) incur or guarantee any indebtedness for borrowed money, other than in the Ordinary Course of Business, (C) guarantee any debt securities of others, or (D) make any capital expenditure or

commitment in excess of $750,000;

(vi) acquire any material asset nor sell, lease, or otherwise irrevocably dispose of any of its assets or properties, or grant any Encumbrance with respect to such assets or properties, in each case, other than in the Ordinary Course of Business;

(vii) (A) make, change or revoke any material Tax election, (B) file any material amendment to any Tax Return, (C) adopt or change any accounting method in respect of Taxes, (D) change any annual Tax accounting period, (E) enter into any Tax allocation agreement, Tax sharing agreement or Tax indemnity agreement, other than commercial contracts entered into in the Ordinary Course of Business with vendors,

customers or landlords, (F) enter into any closing agreement with respect to any Tax, (G) settle or compromise any claim, notice, audit report or assessment in respect of material Taxes, (H) apply for or enter into any ruling from any Tax authority with respect to Taxes, (I) surrender any right to claim a material Tax refund, or (J) consent to any extension or waiver of the statute of limitations period applicable to any material Tax claim or assessment;

(viii) enter into, amend or terminate any Immunic Contract that, if effective as of the date hereof, would constitute an Immunic Material Contract; provided that nothing in this Section 4.3(b)(viii) shall prohibit Immunic from entering into or amending (or require the prior written consent of Vital prior to the entry or amendment of): (A) any agreement involving the provision of services or products with respect to any pre-clinical or clinical development activities of Immunic or its Subsidiaries, (B) any Contract to license any third party to manufacture or produce any product, service or technology of Immunic or its Subsidiaries or (C) any Contract to sell, distribute or commercialize any products or service of Immunic or its Subsidiaries;

(ix) initiate or settle any Legal Proceeding; or

(x) agree, resolve or commit to do any of the foregoing.

4.4 Notification of Certain Matters.

(a) During the Pre-Closing Period, Vital shall:

(i) promptly notify Immunic of: (A) any notice or other communication from any Person alleging that the Consent of such Person is or may be required in connection with any of the Contemplated Transactions; (B) any Legal Proceeding against, relating to, involving or otherwise affecting Vital, or to the Knowledge of Vital, any director or officer of Vital, that is commenced or asserted against, or, to the Knowledge of Vital, threatened against, Vital or any director or officer of Vital; and (C) any notice or other communication from any Person alleging that any payment or other obligation is or will be owed to such Person at any time before or after the date of this Agreement, except for invoices or other communications related to agreements or dealings in the Ordinary Course of Business or payments or obligations identified in this Agreement, including the Vital Disclosure Schedule; and

(ii) promptly notify Immunic in writing of: (A) the discovery by Vital of any event, condition, fact or circumstance that occurred or existed on or prior to the date of this Agreement and that caused or constitutes an inaccuracy in any representation or warranty made by Vital in this Agreement in a manner that causes the condition set forth in Section 8.1 not to be satisfied; (B) any event, condition, fact or circumstance that occurs, arises or exists after the date of this Agreement and that would cause or constitute an inaccuracy in any representation or warranty made by Vital in this Agreement in a manner that causes the condition set forth in Section 8.1 not to be satisfied if: (1) such representation or warranty had been made as of the time of the occurrence, existence or discovery of such event, condition, fact or circumstance; or (2) such event, condition, fact or circumstance had occurred, arisen or existed on or prior to the date of this Agreement; (C) any breach of any covenant or obligation of Vital in a manner that causes the condition set forth in Section 8.2 not to be satisfied; and (D) any event, condition, fact or circumstance that would reasonably be expected to make the timely satisfaction of any of the conditions set forth in Article 6, Article 7, or Article 8 impossible or materially less likely. No notification given to Immunic pursuant to this Section 4.4(a) shall change, limit or otherwise affect any of the representations, warranties, covenants or obligations of Vital contained in this Agreement or the Vital Disclosure Schedule for purposes of Section 8.1.

(b) During the Pre-Closing Period, Immunic shall:

(i) promptly notify Vital of: (A) any notice or other communication from any Person alleging that the Consent of such Person is or may be required in connection with any of the Contemplated Transactions; (B) any Legal Proceeding against, relating to, involving or otherwise affecting Immunic or any of its Subsidiaries, or to the Knowledge of Immunic, any director or officer of Immunic, that is commenced or asserted against, or, to the Knowledge of Immunic, threatened against, Immunic, any of its Subsidiaries, or any director or officer of Immunic; and (C) any notice or other communication from any Person alleging that any payment or

other obligation is or will be owed to such Person at any time before or after the date of this Agreement, except for invoices or other communications related to agreements or dealings in the Ordinary Course of Business or payments or obligations identified in this Agreement; and

(ii) promptly notify Vital in writing, of: (i) the discovery by Immunic of any event, condition, fact or circumstance that occurred or existed on or prior to the date of this Agreement and that caused or constitutes an inaccuracy in any representation or warranty made by Immunic in this Agreement in a manner that causes the condition set forth in Section 7.1 not to be satisfied; (ii) any event, condition, fact or circumstance that occurs, arises or exists after the date of this Agreement and that would cause or constitute an inaccuracy in any representation or warranty made by Immunic in this Agreement in a manner that causes the condition set forth in Section 7.1 not to be satisfied if: (A) such representation or warranty had been made as of the time of the occurrence, existence or discovery of such event, condition, fact or circumstance; or (B) such event, condition, fact or circumstance had occurred, arisen or existed on or prior to the date of this Agreement; (iii) any breach of any covenant or obligation of Immunic in a manner that causes the condition set forth in Section 7.2 not to be satisfied; and (iv) any event, condition, fact or circumstance that would reasonably be expected to make the timely satisfaction of any of the conditions set forth in Article 6, Article 7, or Article 8 impossible or materially less likely. No notification given to Vital pursuant to this Section 4.4(b) shall change, limit or otherwise affect any of the representations, warranties, covenants or obligations of Immunic contained in this Agreement or the Immunic Disclosure Schedule for purposes of Section 7.1.

4.5 No Solicitation.

(a) Each Party and each Holder agrees that neither such Party or Holder nor any of its Subsidiaries or Affiliates shall, nor shall it nor any of its Subsidiaries or Affiliates authorize or permit any of the Representatives retained by it or any of its Subsidiaries or Affiliates to directly or indirectly: (i) solicit, initiate, respond to or take any action to facilitate or encourage any inquiries or the communication, making, submission or announcement of any Acquisition Proposal or Acquisition Inquiry or take any action that could reasonably be expected to lead to an Acquisition Proposal or Acquisition Inquiry; (ii) enter into or participate in any discussions or negotiations with any Person with respect to any Acquisition Proposal or Acquisition Inquiry; (iii) furnish any information regarding a Party to any Person in connection with, in response to, relating to or for the purpose of assisting with or facilitating an Acquisition Proposal or Acquisition Inquiry; (iv) approve, endorse or recommend any Acquisition Proposal (subject to Sections 5.2 and 5.3); (v) execute or enter into any letter of intent or similar document or any Contract contemplating or otherwise relating to any Acquisition Transaction (an ***Acquisition Agreement***); or (vi) grant any waiver or release under any confidentiality, standstill or similar agreement (other than to the other Party or a Holder (as applicable)).

(b) Notwithstanding anything contained in Section 4.5(a), prior to receipt of the Required Vital Stockholder Vote, (i) Vital may enter into discussions or negotiations with any Person that has made (and not withdrawn) a bona fide, unsolicited, Acquisition Proposal, which the Vital Board of Directors determines in good faith, after consultation with its independent financial advisor, if any, and its outside legal counsel, constitutes, or would reasonably be expected to result in, a Superior Offer, and (ii) thereafter furnish to such Person non-public information regarding Vital pursuant to an executed confidentiality agreement containing provisions (including nondisclosure provisions, use restrictions, non-solicitation provisions, no hire provisions and standstill provisions) at least as favorable to Vital as those contained in the Confidentiality Agreement, but in each case of the foregoing clauses (i) and (ii), only if: (A) neither Vital nor any Representative of Vital has breached this Section 4.5; (B) the Vital Board of Directors determines in good faith based on the advice of outside legal counsel, that the failure to take such action would reasonably be expected to result in a breach of the fiduciary duties of the Vital Board of Directors under applicable Legal Requirements; (C) at least five (5) Business Days prior to furnishing any such non-public information to, or entering into discussions with, such Person, Vital gives Immunic written notice of the identity of such Person and of Vital s intention to furnish nonpublic information to, or enter into discussions with, such Person; and (D) at least five

Business Days prior to furnishing any such non-public information to such Person, Vital furnishes such non-public information to Immunic (to the extent such non-public information has not been previously furnished by Vital to Immunic). Without limiting the

generality of the foregoing, each Party and each Holder acknowledges and agrees that, in the event any Representative of such Party or such Holder (whether or not such Representative is purporting to act on behalf of such Party or such Holder) takes any action that, if taken by such Party or such Holder, would constitute a breach of this Section 4.5 by such Party or such Holder, the taking of such action by such Representative shall be deemed to constitute a breach of this Section 4.5 by such Party or such Holder for purposes of this Agreement.

(c) If any Party or any Holder or any Representative of such Party or such Holder receives an Acquisition Proposal or Acquisition Inquiry at any time during the Pre-Closing Period, then such Party or such Holder shall promptly (and in no event later than two (2) Business Days after such Party or such Holder becomes aware of such Acquisition Proposal or Acquisition Inquiry) advise the other Party (which would be Vital in the instance of any Holder) in writing of such Acquisition Proposal or Acquisition Inquiry (including the identity of the Person making or submitting such Acquisition Proposal or Acquisition Inquiry, and the terms thereof). Such Party or such Holder shall keep the other Party fully informed, on a current basis, in all material respects with respect to the status and terms of any such Acquisition Proposal or Acquisition Inquiry and any modification or proposed modification thereto. In addition to the foregoing, each Party shall provide the other Party with at least five (5) Business Days written notice of a meeting of its board of directors (or any committee thereof) at which its board of directors (or any committee thereof) is reasonably expected to consider an Acquisition Proposal or Acquisition Inquiry it has received.

(d) Each Party shall and shall cause its respective Representatives to, cease immediately and cause to be terminated, and shall not authorize or knowingly permit any of its or their Representatives to continue, any and all existing activities, discussions or negotiations, if any, with any third party conducted prior to the date hereof with respect to any Acquisition Proposal and shall use its reasonable best efforts to cause any such third party (or its Representatives) in possession of non-public information in respect of such Party or its Subsidiaries that was furnished by or on behalf of such Party or its Subsidiaries to return or destroy (and confirm destruction of) all such information.

4.6 Market Stand-Off Agreement. Each Holder (each, a ***Lock-Up Participant***) will not, during the period commencing on the date hereof and ending one hundred and eighty (180) days after the date of the Closing (the ***Lock-Up Period***), (1) lend, offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, or otherwise transfer or dispose of, directly or indirectly, any shares of Vital Common Stock or any securities convertible into or exercisable or exchangeable for Vital Common Stock (including, without limitation, Vital Common Stock or such other securities which may be deemed to be beneficially owned by a Lock-Up Participant in accordance with the rules and regulations of the SEC and securities which may be issued upon exercise of a stock option or warrant), or publicly disclose the intention to make any offer, sale, pledge or disposition, (2) enter into any swap or other agreement that transfers, in whole or in part, any of the economic consequences of ownership of Vital Common Stock or such other securities, whether any such transaction described in clause (1) or (2) above is to be settled by delivery of Vital Common Stock or such other securities, in cash or otherwise or (3) make any demand for or exercise any right with respect to the registration of any shares of Vital Common Stock or any security convertible into or exercisable or exchangeable for Vital Common Stock, in each case for purposes of clause (1) or (2) above other than (A) transfers of shares of Vital Common Stock or such other securities as a bona fide gift or gifts, (B) distributions of shares of Vital Common Stock or such other securities to current or former, direct or indirect, members, stockholders, limited partners, subsidiaries or affiliates (as defined in Rule 405 promulgated under the Securities Act) of a Lock-Up Participant or to any investment fund or other entity that controls or manages a Lock-Up Participant (including, for the avoidance of doubt, a fund managed by the same manager or managing member or general partner or management company or by an entity controlling, controlled by, or under common control with such manager or managing member or general partner or management company as a Lock-Up Participant or who shares a common investment advisor with a Lock-Up Participant) in a transaction not involving a disposition for value, (C) sales or other dispositions or arrangements involving shares of Vital Common Stock acquired in the open market after the Closing, (D) a bona fide third party tender offer, merger,

consolidation or other similar transaction made to all holders of Vital Common Stock involving a change of control of Vital following the Closing (including, without limitation, entering into any lock-up, voting or

Table of Contents

similar agreement pursuant to which a Lock-Up Participant may agree to transfer, sell, tender or otherwise dispose of Vital Common Stock or such other securities in connection with any such transaction, or vote any Vital Common Stock in favor of any such transaction), provided that in the event that the tender offer, merger, consolidation or other such transaction is not completed, the Vital Common Stock owned by a Lock-Up Participant shall remain subject to the restrictions contained in this Section 4.6, or (E) transfers of shares of Vital Common Stock to another Lock-Up Participant in a private transaction; provided, that in the case of any transfer or distribution pursuant to clause (A) or (B), each donee, distributee or transferee shall execute and deliver to Vital a lock-up letter in the form of this paragraph; and provided, further, that in the case of any transfer, distribution, sale or other arrangement pursuant to clause (A), (B), (C) or (E) no filing by any party (donor, donee, transferor or transferee) or a Lock-Up Participant, or any director of Vital affiliated with any party (donor, donee, transferor or transferee) or a Lock-Up Participant, under the Exchange Act, or other public announcement shall be required or shall be made voluntarily in connection with such transfer, distribution, sale or other arrangement, other than a filing on a Form 5 made after the expiration of the Lock-Up Period or any required beneficial ownership filings under Section 13 of the Exchange Act. For purposes of this Section 4.6, change of control shall mean the consummation of any bona fide third party tender offer, merger, consolidation or other similar transaction the result of which is that any person (as defined in Section 13(d)(3) of the Exchange Act) other than Vital, or group of persons other than existing stockholders of Vital, becomes the beneficial owner (as defined in Rules 13d-3 and 13d-5 of the Exchange Act) of fifty percent (50%) of total voting power of the voting stock of Vital. Notwithstanding any provision herein to the contrary, the restrictions set forth in Section 4.6 shall not apply to any sales of Vital Common Stock by any Holder solely for the purpose of settling Tax expenses in connection with the consummation of the Transaction.

ARTICLE 5. ADDITIONAL AGREEMENTS OF THE PARTIES

5.1 Registration Statement; Proxy Statement / Prospectus.

(a) As promptly as practicable after the date of this Agreement, the Parties shall prepare and cause to be filed with the SEC the Proxy Statement / Prospectus and Vital shall prepare and cause to be filed with the SEC the Form S-4 Registration Statement, in which the Proxy Statement / Prospectus will be included as a prospectus.

(b) Vital covenants and agrees that the Proxy Statement / Prospectus, including any pro forma financial statements included therein (and the letter to stockholders, notice of meeting and form of proxy included therewith), will not, at the time that the Proxy Statement / Prospectus or any amendment or supplement thereto is filed with the SEC or is first mailed to the Vital Stockholders, at the time of the Vital Stockholders Meeting and at the Effective Time, contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary in order to make the statements made therein, in light of the circumstances under which they were made, not misleading. Vital makes no covenant, representation or warranty with respect to statements made in the Proxy Statement / Prospectus (and the letter to stockholders, notice of meeting and form of proxy included therewith), if any, based on information furnished in writing by Immunic specifically for inclusion therein. Each of the Parties shall use commercially reasonable efforts to cause the Form S-4 Registration Statement and the Proxy Statement / Prospectus to comply with the applicable rules and regulations promulgated by the SEC in all material respects.

(c) Vital shall notify Immunic promptly of the receipt of any comments from the SEC and of any request by the SEC for amendments or supplements to the Proxy Statement / Prospectus or the Form S-4 Registration Statement or for additional information and shall supply Immunic with copies of (i) all correspondence between Vital or any of its Representatives, on the one hand, and the SEC, on the other hand, with respect to the Proxy Statement / Prospectus, the Form S-4 Registration Statement or the Contemplated Transactions and (ii) all orders of the SEC relating to the Form S-4 Registration Statement. Vital shall use its commercially reasonable efforts to respond as promptly as reasonably practicable to any comments of the SEC with respect to the Proxy Statement / Prospectus and Form S-4

Registration Statement, and shall provide Immunic and its counsel a reasonable opportunity to participate in the formulation of any response to any such comments of the SEC. Prior to the Form S-4 Registration Statement being declared effective, (1) Immunic shall

Table of Contents

use its commercially reasonable efforts to execute and deliver to Dentons Europe LLP and Dentons US LLP (collectively, ***Dentons***) the applicable Tax Representation Letter referenced in Section 5.11(b); and (2) Vital shall use its commercially reasonable efforts to execute and deliver to Dentons the applicable Tax Representation Letter referenced in Section 5.11(b). Following the delivery of the Tax Representation Letters pursuant to the preceding sentence, Immunic shall use its commercially reasonable efforts to cause Dentons to deliver to it a tax opinion satisfying the requirements of Item 601 of Regulation S-K under the Securities Act. In rendering such opinion, Dentons shall be entitled to rely on the Tax Representation Letters referred to in this Section 5.1(b) and Section 5.11(b). Vital shall use its commercially reasonable efforts to have the Form S-4 Registration Statement declared effective by the SEC under the Securities Act as promptly as practicable after it is filed with the SEC. No filing of, or amendment or supplement to, the Form S-4 Registration Statement will be made by Vital, and no filing of, or amendment or supplement to, the Proxy Statement / Prospectus will be made by Vital, in each case, without providing Immunic a reasonable opportunity to review and comment thereon. Each Party shall promptly furnish to the other Party all information concerning such Party and such Party s Subsidiaries and such Party s stockholders that may be required or reasonably requested in connection with any action contemplated by this Section 5.1. Each Holder shall furnish to the Parties all information concerning such Holder that may be required or reasonably requested in connection with any action contemplated by this Section 5.1. If any event relating to Immunic occurs, or if Immunic becomes aware of any information, that should be disclosed in an amendment or supplement to the Form S-4 Registration Statement or the Proxy Statement / Prospectus, then Immunic shall promptly inform Vital thereof and shall cooperate fully with Vital in filing such amendment or supplement with the SEC and, if appropriate, in mailing such amendment or supplement to Vital s stockholders.

(d) Prior to the Effective Time, Vital shall use commercially reasonable efforts to obtain all regulatory approvals needed to ensure that the Vital Common Stock to be issued in the Transaction shall be registered or qualified or exempt from registration or qualification under the securities law of every jurisdiction of the United States and Germany in which any registered holder of Immunic Shares has an address of record.

(e) Immunic shall reasonably cooperate with Vital and provide, and require its Representatives to provide, Vital and its Representatives with all true, correct and complete information regarding Immunic that is required by applicable Legal Requirements to be included in the Form S-4 Registration Statement or reasonably requested from Immunic to be included in the Form S-4 Registration Statement.

5.2 Immunic Shareholder Consent.

(a) Without limiting any other provision of this Agreement, each Holder hereby (i) adopts this Agreement and ratifies, confirms and approves the Transaction, the Immunic Pre-Closing Financing and all of the other actions, transactions and arrangements contemplated by this Agreement (the ***Immunic Shareholder Matters***); (ii) acknowledges that the approval given hereby is irrevocable and that such Holder is aware of such Holder s rights as to its Immunic Shares (including any Immunic Pre-Closing Financing Shares and Immunic Exit Bonus Shares) pursuant to any applicable Legal Requirement; and (iii) acknowledges that by such Holder s approval of the Transaction such Holder is not entitled to appraisal rights, dissenters rights or any similar rights with respect to its Immunic Shares (including any Immunic Pre-Closing Financing Shares and Immunic Exit Bonus Shares) in connection with the Transaction and hereby waives any rights to receive payment of the fair value of its Immunic Shares (including any Immunic Pre-Closing Financing Shares and Immunic Exit Bonus Shares) under any applicable Legal Requirement.

(b) Immunic agrees that: (i) the Immunic Board of Directors recommends that Holders ratify, confirm and approve the Immunic Shareholder Matters (the ***Immunic Board Recommendation***); and (ii) the Immunic Board Recommendation shall not be withdrawn or modified in a manner adverse to Vital, and no resolution by the Immunic Board of Directors or any committee thereof to withdraw or modify the Immunic Board Recommendation in a manner

adverse to Vital shall be adopted or proposed.

(c) The provisions of Section 5.2(a) shall not be limited or otherwise affected by the commencement, disclosure, announcement or submission of any Superior Offer or other Acquisition Proposal, or by any withdrawal or modification of the Immunic Board Recommendation.

Table of Contents

5.3 Vital Stockholders Meeting.

(a) Promptly after the Form S-4 Registration Statement has been declared effective by the SEC under the Securities Act, Vital shall (i) take all action necessary under applicable Legal Requirements to call, give notice of and hold a meeting of the holders of Vital Common Stock for the purpose of seeking approval of (A) the issuance of shares of Vital Common Stock to the Holders pursuant to the terms of this Agreement, (B) the change of control of Vital resulting from the Transaction, (C) the amendment of Vital s certificate of incorporation to effect the Reverse Split, (D) any Vital Legacy Transaction, if applicable, (E) the amendment of Vital s certificate of incorporation to effect the name change of Vital, and (F) in accordance with Section 14A of the Exchange Act and the applicable SEC rules issued thereunder, if applicable, seeking advisory approval of a proposal to the Vital Stockholders for a non-binding, advisory vote to approve certain compensation that may become payable to Vital s named executed officers in connection with the completion of the Transaction (the matters contemplated by the foregoing clauses (A) (F), collectively, the ***Vital Stockholder Matters***); and (ii) mail to the Vital Stockholders as of the record date established for stockholders meeting of Vital, the Proxy Statement / Prospectus; *provided, however,* that in no event shall such meeting take place more than sixty (60) calendar days after the date the S-4 Registration Statement is declared effective by the SEC (such meeting, the ***Vital Stockholders Meeting***).

(b) Vital agrees that, subject to Section 5.3(c): (i) the Vital Board of Directors shall recommend that the holders of Vital Common Stock vote to approve the Vital Stockholder Matters; (ii) the Proxy Statement / Prospectus shall include a statement to the effect that the Vital Board of Directors recommends that Vital Stockholders vote to approve the Vital Stockholder Matters (the ***Vital Board Recommendation***); (iii) the Vital Board of Directors shall use commercially reasonable efforts to solicit such approval within the timeframe set forth in Section 5.3(a) above; and (iv) (A) the Vital Board Recommendation shall not be withdrawn or modified in a manner adverse to Immunic, and no resolution by the Vital Board of Director or any committee thereof to withdraw or modify the Vital Board Recommendation in a manner adverse to Immunic shall be adopted or proposed and (B) the Vital Board of Directors shall not recommend any Acquisition Transaction (collectively a ***Vital Board Adverse Recommendation Change***).

(c) Notwithstanding the foregoing, at any time prior to the receipt of the Required Vital Stockholder Vote the Vital Board of Directors may make a Vital Board Adverse Recommendation Change if: (i) the Vital Board of Directors has received an Acquisition Proposal that the Vital Board of Directors has determined in its reasonable, good faith judgment, after consultation with Vital s outside legal counsel, constitutes a Superior Offer or (ii) as a result of a material development or change in circumstances (other than an Acquisition Proposal) that affects the business, assets or operations of Vital that occurs or arises after the date of this Agreement that was neither known to Vital or the Vital Board of Directors nor reasonably foreseeable as of the date of this Agreement (a ***Vital Intervening Event***), the Vital Board of Directors determines in its reasonable, good faith judgment, after consultation with Vital s outside legal counsel, that a Vital Board Adverse Recommendation Change is required in order for the Vital Board of Directors to comply with its fiduciary obligations to the Vital Stockholders under applicable Legal Requirements; *provided, however*, that prior to Vital taking any action permitted under this Section 5.3(c), (A) in the case of a Superior Offer, (1) Vital must promptly notify Immunic, in writing, at least five (5) Business Days (the ***Notice Period***) before making a Vital Board Adverse Recommendation Change, of its intention to take such action with respect to a Superior Offer, which notice shall state expressly that Vital has received an Acquisition Proposal that the Vital Board of Directors intends to declare a Superior Offer and that the Vital Board of Directors intends to make a Vital Board Adverse Recommendation Change, (2) Vital attaches to such notice the most current version of the proposed agreement (which version shall be updated on a prompt basis) and the identity of the third party making such Superior Offer, and (3) Vital negotiates with Immunic in good faith upon Immunic s request to make such adjustments in the terms and conditions of this Agreement so that such Acquisition Proposal ceases to constitute a Superior Offer, if Immunic, in its discretion, proposes to make such adjustments (it being agreed that in the event that, after commencement of the Notice Period, there is any material revision to the terms of a Superior Offer, the Notice Period shall be extended, if

applicable, to ensure that at least three (3) Business Days remains in the Notice Period subsequent to the time Vital notifies Immunic of any such material revision (it being understood

that there may be multiple extensions)); or (B) in the case of a Vital Intervening Event, (1) Vital promptly notifies Immunic, in writing, within the Notice Period before making a Vital Board Adverse Recommendation Change, which notice shall state expressly the material facts and circumstances related to the applicable Vital Intervening Event and that the Vital Board of Directors intends to make a Vital Adverse Recommendation Change, and (2) Vital negotiates with Immunic in good faith upon Immunic s request to make such adjustments in the terms and conditions of this Agreement so that such Vital Intervening Event ceases to necessitate a Vital Board Adverse Recommendation Change with respect to Vital s fiduciary duties, if Immunic, in its discretion, proposes to make such adjustments (it being agreed that in the event that, after commencement of the Notice Period, there is any material development in a Vital Intervening Event, the Notice Period shall be extended, if applicable, to ensure that at least three (3) Business Days remains in the Notice Period subsequent to the time Vital notifies Immunic of any such material development (it being understood that there may be multiple extensions)).

(d) Unless the Vital Board of Directors has effected a Vital Board Adverse Recommendation Change in accordance with Section 5.3(c), Vital s obligation to call, give notice of and hold the Vital Stockholders Meeting in accordance with Section 5.3(a) shall not be limited or otherwise affected by the commencement, disclosure, announcement or submission of any Superior Offer or Acquisition Proposal, or by any withdrawal or modification of the Vital Board Recommendation.

(e) Nothing contained in this Agreement shall prohibit Vital or its Board of Directors from (i) taking and disclosing to the Vital Stockholders a position as contemplated by Rule 14e-2(a) under the Exchange Act or complying with the provisions of Rule 14d-9 under the Exchange Act (other than Rule 14d-9(f) under the Exchange Act), (ii) making any disclosure to the Vital Stockholders if the Vital Board of Directors determines in good faith, after consultation with its outside legal counsel, that the failure to make such disclosure would be inconsistent with its fiduciary duties to the Vital Stockholders under applicable Legal Requirements, and (iii) making a stop, look and listen communication to the Vital Stockholders pursuant to Rule 14d-9(f) under the Exchange Act, *provided, however,* that any such disclosure or public statement shall be deemed to be a Vital Board Adverse Recommendation Change subject to the terms and conditions of this Agreement unless the Vital Board of Directors reaffirms the Vital Board Recommendation within five (5) Business Days of such disclosure or public statement.

5.4 Regulatory Approvals.

(a) Each Party shall use commercially reasonable efforts to take, or cause to be taken, all actions necessary to comply promptly with all Legal Requirements that may be imposed on such Party with respect to the Contemplated Transactions and, subject to the conditions set forth in Article 6 hereof, to consummate the Contemplated Transactions, as promptly as practicable. In furtherance and not in limitation of the foregoing, each Party hereto agrees to file or otherwise submit, as soon as practicable after the date of this Agreement, but in any event no later than ten (10) Business Days after the date hereof, all applications, notices, reports and other documents reasonably required to be filed by such Party with or otherwise submitted by such Party to any Governmental Body with respect to the Contemplated Transactions, and to submit promptly any additional information requested by any such Governmental Body. Without limiting the generality of the foregoing, the Parties shall prepare and file, if and as required, (a) the Notification and Report Forms pursuant to the HSR Act and (b) any notification or other document to be filed in connection with the Transaction under any applicable foreign Legal Requirement relating to antitrust or competition matters. Immunic and Vital shall respond as promptly as is practicable to respond in compliance with: (i) any inquiries or requests received from the Federal Trade Commission or the Department of Justice for additional information or documentation; and (ii) any inquiries or requests received from any state attorney general, foreign antitrust or competition authority or other Governmental Body in connection with antitrust or competition matters. As soon as practicable following the Closing, Immunic shall register Vital as registered shareholder of Immunic under Section 67 German Stock Corporation Act (*Aktiengesetz*).

(b) Each of the Parties shall use its commercially reasonable efforts to (i) cooperate in all respects with each other in connection with timely making all required filings and submissions and timely obtaining all

related consents, permits, authorizations or approvals pursuant to Section 5.4(a); and (ii) keep Immunic or Vital, as applicable, informed in all material respects and on a reasonably timely basis of any communication received by such Party from, or given by such Party to, the Federal Trade Commission, the Department of Justice or any other Governmental Body relating to the Contemplated Transactions. Subject to applicable Legal Requirements relating to the exchange of information, each Party shall, to the extent practicable, give the other party reasonable advance notice of all material communications with any Governmental Body relating to the Contemplated Transactions and each Party shall have the right to attend or participate in material conferences, meetings and telephone or other communications between the other Parties and regulators concerning the Contemplated Transactions.

(c) Notwithstanding Sections 5.4(a) through 5.4(b) or any other provision of this Agreement to the contrary, in no event shall either Party be required to agree to (i) divest, license, hold separate or otherwise dispose of, encumber or allow a third party to utilize, any portion of its or their respective businesses, assets or contracts or (ii) take any other action that may be required or requested by any Governmental Body in connection with obtaining the consents, authorizations, orders or approvals contemplated by this Section 5.4 that would have an adverse impact, in any material respect, on any of the Parties.

5.5 Vital Employee and Benefits Matters.

(a) Unless otherwise agreed in writing by Immunic pursuant to written notice provided to Vital no later than three (3) calendar days prior to the Closing Date, effective no later than the Business Day immediately prior to the Closing Date, Vital shall, and shall cause any of its Subsidiaries to, terminate the employment and service of each Vital Associate (the ***Terminated Vital Associates***) such that neither Vital nor any Vital Subsidiary shall have any Vital Associate in its employ or service as of the Effective Time. As a condition to payment of any Terminated Vital Associate Payment to a Terminated Vital Associate and prior to the Closing Date, Vital will use commercially reasonable efforts to obtain from each Terminated Vital Associate an effective release of claims in a form approved by Immunic, which approval shall not be unreasonably withheld, conditioned or delayed. Prior to the Closing, Vital shall use commercially reasonable efforts to comply, in all material respects, with all of the requirements of the WARN Act and any applicable state Legal Requirement equivalent with respect to the Terminated Vital Associates. Schedule 5.5(a) sets forth, with respect to each Terminated Vital Associate, Vital s good faith estimate of the amount of all change of control payments, severance payments, termination or similar payments, retention payments, bonuses and other payments and benefits (including any COBRA costs), owed to or to be paid or provided to each Terminated Vital Associate, and the amount by which any of such Terminated Vital Associate s compensation or benefits may be accelerated or increased, in each case, whether under any Vital Employee Plan or otherwise, as a result of (i) the execution of this Agreement, (ii) the consummation of the Contemplated Transactions, or (iii) the termination of employment or service of such Terminated Vital Associate (together, the ***Terminated Vital Associate Payments***).

(b) Excluding Vital s medical, dental and vision care plans as well as any Vital Employee Plans intended to include a Code Section 401(k) arrangement, in each instance where in effect as of the date of this Agreement (the foregoing, collectively, the ***Vital Continued Benefit Plans***), effective no later than the day immediately preceding the Closing Date Vital shall terminate (i) all Vital Employee Plans that are employee benefit plans within the meaning of ERISA and (ii) each other Vital Employee Plan set forth on Schedule 5.5(b) attached hereto unless written notice is provided by Immunic to Vital no later than three (3) calendar days prior to the Closing Date, instructing Vital not to terminate any such Vital Employee Plan; provided, however, that if Immunic provides Vital with written notice to such effect sufficiently in advance of the Closing Date, then Vital shall also terminate any Vital Employee Plans intended to include a Code Section 401(k) arrangement. Vital shall provide Immunic with evidence that such Vital Employee Plans have been terminated (effective no later than the day immediately preceding the Closing Date) pursuant to resolutions of the Vital Board of Directors. The form and substance of such resolutions shall be subject to review and approval of Immunic. Vital also shall take such other actions in furtherance of terminating such Vital Employee

Plan(s) as Immunic may reasonably require.

(c) Immunic agrees to use its commercially reasonable efforts to maintain the Vital Continued Benefit Plans in effect, in accordance with their respective terms as of immediately prior to the Effective Time,

until at least December 31, 2019, other than any Vital Employee Plans intended to include a Code Section 401(k) arrangement to the extent Immunic provides Vital with timely written notice as to termination thereof as contemplated by Section 5.5(b). For the avoidance of any doubt, nothing in this Section 5.5(b) shall be deemed to require that Vital or Immunic employ any Vital Associate after the Closing or that Vital or Immunic maintain any minimum number of employees in the United States.

(d) To the extent permitted by the applicable Vital Equity Plan, but without affecting (including by terminating or otherwise abridging) the Vital Severance RSUs: (i) each Vital Option that is outstanding and unexercised immediately prior to the Effective Time, whether or not vested or exercisable, and each Vital RSU (other than the Vital Severance RSUs) that is outstanding and has not been settled as of the Effective Time, shall be canceled and extinguished at the Effective Time without the right to receive any consideration; and (ii) the Vital Board of Directors will adopt appropriate resolutions (which draft resolutions shall be provided to Immunic for reasonable review and approval by Immunic prior to adoption by the Vital Board of Directors and no later than five (5) calendar days prior to the Closing Date) and will have taken all other actions necessary and appropriate to effectuate the provisions of this Section 5.5(d).

(e) This Section 5.5 shall be binding upon and inure solely to the benefit of each of the parties to this Agreement. Nothing in this Section 5.5, express or implied, will (i) constitute or be treated as an amendment of any Vital Employee Plan or Immunic Employee Plan (or an undertaking to amend any such plan), (ii) prohibit Vital, any Vital Affiliate, Immunic, or any Immunic Affiliate from amending, modifying or terminating any Vital Employee Plan or Immunic Employee Plan pursuant to, and in accordance with, the terms thereof, or (iii) confer any rights or benefits on any Person other than Vital and Immunic.

5.6 Immunic Exit Bonus Shares. No later than immediately prior to the Effective Time, Immunic and the parties to the Immunic Exit Bonus Agreements shall take all actions necessary to cause the Immunic Exit Bonus Agreements to be cancelled in exchange for the right to receive Immunic Common Shares immediately prior to the Closing.

5.7 Indemnification of Officers and Directors.

(a) From the Effective Time through the sixth anniversary of the date on which the Effective Time occurs, each of Vital and Immunic shall, jointly and severally, indemnify and hold harmless each person who is now, or has been at any time prior to the date hereof, or who becomes prior to the Effective Time, a director or officer of Vital or Immunic (the ***D&O Indemnified Parties***), against all claims, losses, liabilities, damages, judgments, fines and reasonable fees, costs and expenses, including attorneys fees and disbursements (collectively, ***Costs***), incurred in connection with any claim, action, suit, proceeding or investigation, whether civil, criminal, administrative or investigative, arising out of or pertaining to the fact that the D&O Indemnified Party is or was a director or officer of Vital or Immunic, whether asserted or claimed prior to, at or after the Effective Time, to the fullest extent permitted under the DGCL for directors or officers of Delaware corporations. Each D&O Indemnified Party will be entitled to advancement of expenses incurred in the defense of any such claim, action, suit, proceeding or investigation from each of Vital and Immunic, jointly and severally, upon receipt by Vital or Immunic from the D&O Indemnified Party of a request therefor; *provided,* that any person to whom expenses are advanced provides an undertaking, as applicable, to repay such advances if it is ultimately determined that such person is not entitled to indemnification.

(b) The certificate of incorporation and bylaws (or equivalent organizational document in accordance with applicable Legal Requirements) of each of Vital and Immunic shall contain provisions no less favorable with respect to indemnification, advancement of expenses and exculpation of present and former directors and officers of each of Vital and Immunic than are presently set forth in the certificate of incorporation and bylaws (or equivalent organizational document in accordance with applicable Legal Requirements) of Vital and Immunic, as applicable,

which provisions shall not be amended, modified or repealed for a period of six (6) years time from the Effective Time in a manner that would adversely affect the rights thereunder of individuals who, at or prior to the Effective Time, were officers or directors of Vital or Immunic.

(c) Prior to the Effective Time, Vital shall purchase a tail insurance policy with an effective date as of the Closing Date, which shall remain effective for six (6) years following the Closing Date, at least the same coverage and amounts and containing the same terms and conditions that are not less favorable to the D&O Indemnified Parties of Vital.

(d) Vital and Immunic, as co-obligors with joint and several liability, shall pay all reasonable expenses, including reasonable attorneys fees, that may be incurred by the persons referred to in this Section 5.7 in connection with their enforcement of their rights provided in this Section 5.7.

(e) The provisions of this Section 5.7 are intended to be in addition to the rights otherwise available to the D&O Indemnified Parties by law, charter, statute, bylaw or agreement. The obligations of Vital and Immunic under this Section 5.7 shall survive the consummation of the Transaction and shall not be terminated or modified in such a manner as to adversely affect any D&O Indemnified Party to whom this Section 5.7 applies without the consent of such affected D&O Indemnified Party (it being expressly agreed that the D&O Indemnified Parties to whom this Section 5.7 applies, as well as their heirs and representatives, shall be third party beneficiaries of this Section 5.7, each of whom may enforce the provisions of this Section 5.7).

(f) In the event Vital or Immunic or any of their respective successors or assigns (i) consolidates with or merges into any other person and shall not be the continuing or surviving corporation or entity of such consolidation or merger, or (ii) transfers all or substantially all of its properties and assets to any person, then, and in each such case, proper provision shall be made so that the successors and assigns of Vital or Immunic, as the case may be, shall succeed to the obligations set forth in this Section 5.7. Vital shall cause Vital and Immunic to perform all of the obligations of the Parties under this Section 5.7.

5.8 Additional Agreements. The Parties shall (a) use commercially reasonable efforts to cause to be taken all actions necessary to consummate the Contemplated Transactions and (b) reasonably cooperate with the other Parties and provide the other Parties with such assistance as may be reasonably requested for the purpose of facilitating the performance by each Party of its respective obligations under this Agreement and to enable Vital and Immunic to continue to meet its obligations under this Agreement following the Closing. Without limiting the generality of the foregoing, each Party to this Agreement: (i) shall make all filings and other submissions (if any) and give all notices (if any) required to be made and given by such Party in connection with the Contemplated Transactions; (ii) shall use commercially reasonable efforts to lift any injunction prohibiting, or any other legal bar to, the Contemplated Transactions; and (iii) shall use commercially reasonable efforts to satisfy the conditions precedent to the consummation of this Agreement. The Holders shall (a) use commercially reasonable efforts to cause to be taken all actions necessary to consummate the Contemplated Transactions and (b) reasonably cooperate with the Parties and provide the Parties with such assistance as may be reasonably requested for the purpose of facilitating the performance by each Party of its respective obligations under this Agreement and to enable the Parties to continue to meet its obligations under this Agreement following the Closing. Without limiting the generality of the foregoing, each Party and Holder: (i) shall make all filings and other submissions (if any) and give all notices (if any) required to be made and given by such Party or Holder in connection with the Contemplated Transactions; (ii) shall use commercially reasonable efforts to lift any injunction prohibiting, or any other legal bar to, the Contemplated Transactions; and (iii) shall use commercially reasonable efforts to satisfy the conditions precedent to the consummation of this Agreement.

5.9 Disclosure. Without limiting Immunic s or Vital s obligations under the Confidentiality Agreement, each Party and Holder shall not, and shall not permit any of its Subsidiaries or any Representative of such Party or Holder to, issue any press release or make any disclosure (including to any of its customers or employees (other than employees that have a bona fide need to know), to the public or otherwise) regarding the Contemplated Transactions unless:

(a) the Parties have approved such press release or disclosure in writing; or (b) the Parties have determined in good faith, upon the advice of outside legal counsel, that such disclosure is required by applicable Legal Requirements and, to the extent practicable, before such press release or disclosure is issued or made, a Party advises the other Party of, and consults with the other Party regarding, the text of such press release or disclosure.

Table of Contents

5.10 Listing. Vital shall use its commercially reasonable efforts: (a) to maintain its existing listing on the Nasdaq Global Market and to obtain approval of the listing of the combined company on the Nasdaq Global Market; (b) without derogating from the generality of the requirements of clause (a) and to the extent required by the rules and regulations of Nasdaq, to (i) prepare and submit to Nasdaq a notification form for the listing of the shares of Vital Common Stock to be issued in the Transaction and the Reverse Split, and (ii) to cause such shares to be approved for listing (subject to notice of issuance); and (c) to the extent required by Nasdaq Marketplace Rule 5110, to file an initial listing for the Vital Common Stock on Nasdaq Global Market (the ***NASDAQ Listing Application***) and to cause such NASDAQ Listing Application to be approved for listing (subject to official notice of issuance). Immunic will cooperate with Vital as reasonably requested by Vital with respect to the NASDAQ Listing Application and promptly furnish to Vital all information concerning Immunic and the Holders that may be required or reasonably requested in connection with any action contemplated by this Section 5.10.

5.11 Tax Matters.

(a) Vital and Immunic shall use their respective commercially reasonable efforts to cause the Transaction to qualify, and agree not to, and not to permit or cause any affiliate or any Subsidiary to, take any actions or cause any action to be taken which would reasonably be expected to prevent or impede the Transaction from qualifying, as a transaction described in Section 351(a) of the Code.

(b) Immunic shall use its commercially reasonably efforts to deliver to Dentons a Tax Representation Letter, dated as of the date of the tax opinion referenced in Section 5.1(b) and signed by an officer of Immunic, containing representations of Immunic, and Vital shall use its commercially reasonable efforts to deliver to Dentons a Tax Representation Letter, dated as of the date of the tax opinion referenced in Section 5.1(b) and signed by an officer of Vital, containing representations of Vital, in each case as shall be reasonably necessary or appropriate to enable Dentons to render the opinion described in Section 5.1(b) of this Agreement.

5.12 Legends. Vital shall be entitled to (a) place appropriate legends on the book entries and/or certificates evidencing any shares of Vital Common Stock to be received in the Transaction by equity holders of Immunic, including (i) such equity holders who may be considered affiliates of Vital for purposes of Rules 144 and 145 under the Securities Act reflecting the restrictions set forth in Rules 144 and 145 and (ii) in respect of the market stand-off provisions in Section 4.6, and (b) issue appropriate stop transfer instructions to the transfer agent for Vital Common Stock.

5.13 Directors and Officers. Prior to the Effective Time, but to be effective at the Effective Time, the Vital Board of Directors shall (a) set the size of the Vital Board of Directors at five members and elect (i) four designees selected by Immunic and (ii) one designee selected by Vital (with all such designees, in the aggregate, expected to satisfy the requisite independence requirements for the Vital Board of Directors, as well as the sophistication and independence requirements for the required committees of the Vital Board of Directors, pursuant to Nasdaq s listing standards), each to serve as a member of the Vital Board of Directors, (b) take all necessary action to appoint each of the individuals set forth on Schedule 5.13 as officers of Vital to hold the offices set forth opposite his or her name, and (c) appoint each of the directors set forth on Schedule 5.13 to the committees of the Vital Board of Directors set forth opposite his or her name (with such director, in the aggregate, expected to satisfy the sophistication and independence requirements for the required committees of the Vital Board of Directors pursuant to Nasdaq s listing standards).

5.14 Section 16 Matters. Prior to the Effective Time, Vital shall take all such steps as may be required to cause any acquisitions of Vital Common Stock and any options to purchase Vital Common Stock resulting from the Contemplated Transactions, by each individual who is reasonably expected to become subject to the reporting requirements of Section 16(a) of the Exchange Act with respect to Vital, to be exempt under Rule 16b-3 promulgated

under the Exchange Act.

Table of Contents

5.15 Takeover Statutes. If any control share acquisition , fair price , moratorium or other anti-takeover Legal Requirement becomes or is deemed to be applicable to Vital, Immunic, or the Contemplated Transactions, then each of Vital, Immunic, and their respective board of directors or comparable fiduciary governing body shall grant such approvals and take such actions as are necessary so that the Contemplated Transactions may be consummated as promptly as practicable on the terms contemplated hereby and otherwise act to render such anti-takeover Legal Requirement inapplicable to the foregoing.

5.16 Termination of Certain Agreements and Rights. Immunic shall use commercially reasonable efforts to terminate, at or prior to the Effective Time, those agreements set forth on Schedule 5.16 (collectively, the ***Investor Agreements***).

ARTICLE 6. CONDITIONS PRECEDENT TO OBLIGATIONS OF EACH PARTY

The obligations of each Party to effect the Transaction and otherwise consummate the transactions to be consummated at the Closing are subject to the satisfaction or, to the extent permitted by applicable Legal Requirements, the written waiver by each of the Parties, at or prior to the Closing, of each of the following conditions:

6.1 Effectiveness of Registration Statement. The Form S-4 Registration Statement has been declared effective by the SEC under the Securities Act and no stop order suspending the effectiveness of the Form S-4 Registration Statement has been issued by the SEC and no proceedings for that purpose and no similar proceeding has been initiated or, to the Knowledge of Vital, threatened by the SEC.

6.2 No Restraints. (a) No temporary restraining order, preliminary or permanent injunction or other order preventing the consummation of the Transaction has been issued by any court of competent jurisdiction or other Governmental Body of competent jurisdiction and remain in effect, and there shall not be any Legal Requirement which has the effect of making the consummation of the Transaction or any of the Contemplated Transactions illegal; and (b) there shall be no Legal Proceeding pending, or overtly threatened in writing, by an official of a Governmental Body in which such Governmental Body indicates that it intends to conduct any Legal Proceeding or take any other action challenging or seeking to restrain or prohibit the consummation of the Transaction or any of the Contemplated Transactions.

6.3 Stockholder Approval. Vital has obtained the Required Vital Stockholder Vote.

6.4 Regulatory Matters. Any waiting period applicable to the consummation of the Transaction under the HSR Act or applicable to foreign Legal Requirements relating to antitrust or competition matters has expired or been terminated, and there shall not be in effect any voluntary agreement between Vital and/or Immunic, on the one hand, and the Federal Trade Commission, the Department of Justice or any foreign Governmental Body, on the other hand, pursuant to which such Party has agreed not to consummate the Transaction for any period of time; provided, that neither Immunic, on the one hand, nor Vital, on the other hand, shall enter into any such voluntary agreement without the written consent of all Parties.

6.5 Listing. (a) The existing shares of Vital Common Stock have been continually listed on The Nasdaq Global Market as of and from the date of this Agreement through the Closing Date, (b) the shares of Vital Common Stock to be issued in the Transaction and the Reverse Split shall be approved for listing (subject to official notice of issuance) on The Nasdaq Global Market as of the Effective Time, and (c) to the extent required by Nasdaq Marketplace Rule 5110, the NASDAQ Listing Application has been approved for listing (subject to official notice of issuance).

Table of Contents

ARTICLE 7. ADDITIONAL CONDITIONS PRECEDENT TO OBLIGATIONS OF VITAL

The obligations of Vital to effect the Transaction and otherwise consummate the transactions to be consummated at the Closing are subject to the satisfaction or the written waiver by Vital, at or prior to the Closing, of each of the following conditions:

7.1 Accuracy of Representations. (a) The representations and warranties of Immunic in Section 2.4 (Capitalization) are true and correct in all but de minimis respects as of the date of this Agreement and are true and correct on and as of the Closing Date with the same force and effect as if made on the Closing Date, except as affected by the Immunic Pre-Closing Financing and the issuance of the Immunic Pre-Closing Financing Shares and the Immunic Exit Bonus Agreements and the issuance of the Immunic Exit Bonus Shares; and (b) all other representations and warranties of Immunic and all representations and warranties of the Holders in Article 2 of this Agreement are true and correct as of the date of this Agreement and are true and correct on and as of the Closing Date with the same force and effect as if made on the Closing Date except (i) in each case, or in the aggregate, where the failure to be true and correct would not have an Immunic Material Adverse Effect (provided that all Immunic Material Adverse Effect qualifications and other materiality qualifications limiting the scope of the representations and warranties of Immunic in Article 2 of this Agreement will be disregarded), or (ii) for those representations and warranties which address matters only as of a particular date (which representations were so true and correct, subject to the qualifications as set forth in the preceding clause (i), as of such particular date).

7.2 Performance of Covenants. Each of the covenants and obligations in this Agreement that Immunic and the Holders are required to comply with or to perform at or prior to the Closing have been complied with and performed by Immunic and/or the Holders (as applicable) in all material respects.

7.3 No Immunic Material Adverse Effect. Since the date of this Agreement, there has not occurred any Immunic Material Adverse Effect that is continuing.

7.4 Lock-Ups from Immunic Officers and Directors. To the extent such Persons are not Holders, all officers and directors of Immunic as well as all officers and directors of Vital selected for service to Vital following the Closing by Immunic, together with all Affiliates of the foregoing, shall have executed and delivered to Vital a market stand-off agreement in the form of Section 4.6; provided, however, that the restrictions set forth in Section 4.6 shall not apply to any sales of Vital Common Stock by any such Person solely for the purpose of settling Tax expenses in connection with the consummation of the Transaction.

7.5 Termination of Investor Agreements. The Investor Agreements shall have been terminated.

7.6 Immunic Pre-Closing Financing. The Immunic Pre-Closing Financing shall have been consummated and Immunic shall have received the proceeds of the Immunic Pre-Closing Financing on the terms and conditions set forth in the Subscription Agreement.

7.7 Documents. Vital has received the following documents, each of which shall be in full force and effect as of the Closing Date:

(a) a certificate executed by the Chief Executive Officer of Immunic confirming that the conditions set forth in Sections 7.1, 7.2, 7.3 and 7.6 have been duly satisfied;

(b) (i) a certificate of good standing of Immunic in its jurisdiction of organization, (ii) certified copies of the organizational documents of Immunic reasonably requested by Vital, and (iii) a certificate as to (A) the incumbency of

the Chief Executive Officer and Chief Financial Officer of Immunic and (B) the adoption of resolutions of the Immunic Board of Directors authorizing the execution of this Agreement and the consummation of the Contemplated Transactions to be performed by Immunic hereunder;

(c) a form of notice to the Internal Revenue Service in accordance with the requirements of Treasury Regulation Section 1.897-2(h) and in form and substance reasonably acceptable to Vital along with written

authorization for Vital to deliver such notice form to the Internal Revenue Service on behalf of Immunic upon the Closing; and

(d) the Allocation Certificate.

ARTICLE 8. ADDITIONAL CONDITIONS PRECEDENT TO OBLIGATIONS OF IMMUNIC

The obligations of Immunic to effect the Transaction and otherwise consummate the transactions to be consummated at the Closing are subject to the satisfaction or the written waiver by Immunic, at or prior to the Closing, of each of the following conditions:

8.1 Accuracy of Representations. (a) The representations and warranties of Vital in Section 3.4 (Capitalization) are true and correct in all but de minimis respects as of the date of this Agreement and are true and correct on and as of the Closing Date with the same force and effect as if made on the Closing Date; and (b) all other representations and warranties of Vital in Article 3 of this Agreement are true and correct as of the date of this Agreement and are true and correct on and as of the Closing Date with the same force and effect as if made on the Closing Date except (i) in each case, or in the aggregate, where the failure to be true and correct would not have a Vital Material Adverse Effect (provided that all Vital Material Adverse Effect qualifications and other materiality qualifications limiting the scope of the representations and warranties of Vital in Article 3 of this Agreement will be disregarded), or (ii) for those representations and warranties which address matters only as of a particular date (which representations were so true and correct, subject to the qualifications as set forth in the preceding clause (i), as of such particular date).

8.2 Performance of Covenants. Each of the covenants and obligations in this Agreement that Vital is required to comply with or to perform at or prior to the Closing has been complied with and performed by Vital in all material respects.

8.3 No Vital Material Adverse Effect. Since the date of this Agreement, there has not occurred any Vital Material Adverse Effect that is continuing.

8.4 Board of Directors and Officers. Vital has caused the Vital Board of Directors and the officers of Vital to be constituted as set forth in Section 5.13 of this Agreement effective as of the Effective Time.

8.5 Lock-Ups from Vital Officers and Directors. All officers and directors of Vital, together with all Affiliates of the foregoing, shall have executed and delivered to Vital a market stand-off agreement in the form of Section 4.6; provided, however, that the restrictions set forth in Section 4.6 shall not apply to any sales of Vital Common Stock by any such Person solely for the purpose of settling Tax expenses in connection with the settlement of any Vital Severance RSUs.

8.6 Amendment to Certificate of Incorporation. Vital has effected the Reverse Split and has provided Immunic with a file-stamped copy of the amendment to Vital s certificate of incorporation effecting the Reverse Split.

8.7 Filing of Form 10-K. Vital has filed its Annual Report on Form 10-K for the year ended December 31, 2018.

8.8 Documents. Immunic has received the following documents, each of which shall be in full force and effect as of the Closing Date:

(a) a certificate executed by the Chief Executive Officer and Chief Financial Officer of Vital confirming that the conditions set forth in Sections 8.1, 8.2 and 8.3 have been duly satisfied;

(b) (i) certificates of good standing of Vital in Delaware and California, (ii) certified copies of the certificate of incorporation and bylaws of Vital, and (iii) a certificate as to (A) the incumbency of the officers of

Vital and (B) the adoption of resolutions of the Vital Board of Directors authorizing the execution of this Agreement and the consummation of the Contemplated Transactions to be performed by Vital hereunder;

(c) written resignations in forms satisfactory to Immunic, dated as of the Closing Date and effective as of the Closing, executed by all officers and directors of Vital (except, as applicable, any officers or directors continuing in such roles following the Effective Time); and

(d) the Vital Outstanding Shares Certificate.

ARTICLE 9. TERMINATION

9.1 Termination. This Agreement may be terminated prior to the Effective Time (whether before or after obtaining the Required Vital Stockholder Vote, as applicable, unless otherwise specified below):

(a) by mutual written consent duly authorized by the Boards of Directors of Vital and Immunic;

(b) by either Vital or Immunic if the Transaction shall not have been consummated by May 30, 2019 (the ***Outside Date***); provided, however, that the right to terminate this Agreement under this Section 9.1(b) shall not be available to Immunic, on the one hand, or to Vital, on the other hand, if such Party s (or, in the case of Immunic, a Holder s) action or failure to act has been a principal cause of the failure of the Transaction to occur on or before the Outside Date and such action or failure to act constitutes a breach of this Agreement; provided, further, that, in the event that the SEC has not declared effective under the Securities Act the Form S-4 Registration Statement by the date which is sixty (60) calendar days prior to the Outside Date, then either Immunic or Vital shall be entitled to extend the date for termination of this Agreement pursuant to this Section 9.1(b) for an additional sixty (60) calendar days from the Outside Date;

(c) by either Vital or Immunic if a court of competent jurisdiction or other Governmental Body has issued a final and nonappealable order, decree or ruling, or has taken any other action, having the effect of permanently restraining, enjoining or otherwise prohibiting the Transaction; provided, however, that the right to terminate this Agreement under this Section 9.1(c) shall not be available to Immunic, on the one hand, or to Vital, on the other hand, if such Party s action or failure to act has been a principal cause of such issuance or action by a Governmental Body, and such action or failure to act constitutes a breach of this Agreement;

(d) by either Vital or Immunic if (i) the Vital Stockholders Meeting (including any adjournments and postponements thereof) has been held and completed and the Vital Stockholders have taken a final vote on the Vital Stockholder Matters and (ii) the Vital Stockholder Matters have not been approved at the Vital Stockholders Meeting (or any adjournment or postponement thereof) by the Required Vital Stockholder Vote; provided, however, that the right to terminate this Agreement under this Section 9.1(d) shall not be available to Vital where the failure to obtain the Required Vital Stockholder Vote has been caused by the action or failure to act of Vital and such action or failure to act constitutes a material breach by Vital of this Agreement;

(e) by Immunic (at any time prior to obtaining the Required Vital Stockholder Vote) if any of the following events have occurred: (i) Vital failed to include the Vital Board Recommendation in the Proxy Statement / Prospectus; (ii) the Vital Board of Directors have approved, endorsed or recommended any Acquisition Proposal; (iii) Vital has failed to hold the Vital Stockholders Meeting within sixty (60) calendar days of the Form S-4 Registration Statement being declared effective by the SEC under the Securities Act (other than to the extent that the Form S-4 Registration Statement is subject to any stop order or proceeding (or threatened proceeding by the SEC) seeking a stop order with respect to the Form S-4 Registration Statement, in which case such sixty (60)-calendar day period shall be tolled for

the earlier of sixty (60)-calendar days or so long as such stop order remains in effect or such proceeding or threatened proceeding remains pending); (iv) Vital has entered into any Acquisition Agreement (other than a confidentiality agreement permitted pursuant to Section 4.5); or (v) Vital or any of its Representatives has willfully and intentionally breached the provisions set forth in Section 4.5;

(f) by Immunic, upon a breach of any representation, warranty, covenant or agreement on the part of Vital set forth in this Agreement, or if any representation or warranty of Vital has become inaccurate, in either

case such that the conditions set forth in Section 8.1 or Section 8.2 would not be satisfied; provided, however, that if such inaccuracy in Vital s representations and warranties or breach by Vital is curable by Vital, then this Agreement shall not terminate pursuant to this Section 9.1(f) as a result of such particular breach or inaccuracy unless such breach remains uncured fifteen (15) calendar days following the date of written notice from Immunic to Vital of such breach or inaccuracy and its intention to terminate pursuant to this Section 9.1(f); and provided, further, that no termination may be made pursuant to this Section 9.1(f) solely as a result of the failure to obtain the Required Vital Stockholder Vote (in which case, termination must be made pursuant to Section 9.1(d));

(g) by Vital, upon a breach of any representation, warranty, covenant or agreement on the part of Immunic or a Holder set forth in this Agreement, or if any representation or warranty of Immunic or a Holder has become inaccurate, in either case such that the conditions set forth in Section 7.1 or Section 7.2 would not be satisfied; provided, however, that if such inaccuracy in Immunic s or a Holder s representations and warranties or breach by Immunic or a Holder is curable by Immunic or such Holder, then this Agreement shall not terminate pursuant to this Section 9.1(g) as a result of such particular breach or inaccuracy unless such breach remains uncured fifteen (15) calendar days following the date of written notice from Vital to Immunic of such breach by Immunic or a Holder or inaccuracy and its intention to terminate pursuant to this Section 9.1(g);

(h) by Vital (prior to obtaining the Required Vital Stockholder Vote), if the Vital Board of Directors authorizes Vital to enter into any Permitted Alternative Agreement; *provided, however*, that Vital shall not enter into any Permitted Alternative Agreement unless (i) Vital has complied with its obligations under Section 4.5; (ii) Vital has complied with its obligations under Section 5.3(c); (iii) Vital concurrently pays to Immunic amounts due pursuant to Section 9.3; and (iv) a copy of the execution version of such Permitted Alternative Agreement and all related agreements, exhibits, schedules and other documents has been delivered to Immunic; or

(i) by Vital, at any time, if (i) all conditions in Article 6 and Article 8 have been satisfied (other than those conditions that by their nature are to be satisfied by actions taken at the Closing), and remain so satisfied and (ii) Vital irrevocably confirms by written notice to Immunic that (A) each of the conditions in Article 7 (other than the condition set forth in Section 7.6 (Immunic Pre-Closing Financing) and those conditions that by their nature are to be satisfied by actions taken at the Closing) has been satisfied or that Vital is willing to waive any such conditions that have not been satisfied (other than the condition set forth in Section 7.6 (Immunic Pre-Closing Financing) and those conditions that by their nature are to be satisfied by actions taken at the Closing) and (B) it is prepared to consummate the Closing upon satisfaction of the condition set forth in Section 7.6 (*i.e.*, consummation of the Immunic Pre-Closing Financing); provided, that Vital shall not terminate this Agreement pursuant to this Section 9.1(i) unless the condition set forth in Section 7.6 (Immunic Pre-Closing Financing) has not been satisfied within ten (10) calendar days after delivery of the written notice from Vital to Immunic pursuant to clause (ii) of this Section 9.1(i).

The Party desiring to terminate this Agreement pursuant to this Section 9.1 (other than pursuant to Section 9.1(a)) shall give a notice of such termination to the other Party specifying the provisions hereof pursuant to which such termination is made and the basis therefor described in reasonable detail.

9.2 Effect of Termination. In the event of the termination of this Agreement as provided in Section 9.1, this Agreement shall be of no further force or effect; *provided*, *however*, that (i) this Section 9.2, Section 9.3, and Article 10 shall survive the termination of this Agreement and shall remain in full force and effect, (ii) the termination of this Agreement shall not relieve any Party or Holder from any liability for any willful and material breach of any representation, warranty, covenant, obligation or other provision contained in this Agreement other than as specifically set forth in Section 9.4 and (iii) the termination of this Agreement shall not relieve or limit the liability of any Party or Holder for its fraud.

9.3 Expenses; Termination Fees.

(a) Except as set forth in this Section 9.3, all fees and expenses incurred in connection with this Agreement and the Contemplated Transactions shall be paid by the Party or a Holder incurring such expenses, whether or not the Transaction is consummated; provided, however, that Vital and Immunic shall share equally

all fees and expenses, other than attorneys and accountants fees and expenses, incurred in relation to the filings by the Parties under any filing requirement under the HSR Act and any foreign antitrust Legal Requirement applicable to this Agreement and the Contemplated Transactions; and provided, further, that Vital and Immunic shall also share equally all fees and expenses (i) incurred in relation to the filing of the Nasdaq Listing Application with Nasdaq (ii) of counsel to Vital in connection with obtaining listing of the combined company on the Nasdaq Global Market, (iii) by engagement of a proxy soliciting firm in connection with obtaining approval of the Vital Stockholder Matters, (iv) by engagement of the Exchange Agent and (v) in relation to the printing (*e.g.*, paid to a financial printer) and filing with the SEC of the Form S-4 Registration Statement (including any financial statements and exhibits) and any amendments or supplements thereto.

(b) (i) If (A) this Agreement is terminated by Vital or Immunic pursuant to Section 9.1(d) or Section 9.1(e), (B) at any time before the Vital Stockholders Meeting an Acquisition Proposal with respect to Vital has been publicly announced, disclosed or otherwise communicated to the Vital Board of Directors and (C) in the event this Agreement is terminated pursuant to Section 9.1(d) within twelve (12) months after the date of such termination, Vital enters into a definitive agreement with respect to a Subsequent Transaction or consummates a Subsequent Transaction, then Vital shall pay to Immunic, within five (5) Business Days after termination (or, if applicable, upon the earlier of such entry into a definitive agreement with respect to a Subsequent Transaction or consummation of a Subsequent Transaction), a nonrefundable fee in an amount equal to $500,000 (the ***Immunic Termination Fee***), in addition to any amount payable to Immunic pursuant to Section 9.3(c) or Section 9.3(e).

(ii) If this Agreement is terminated by Vital pursuant to Section 9.1(i), then Immunic shall pay to Vital, within two (2) Business Days after such termination, a nonrefundable fee in an amount equal to $2,000,000 (the ***Vital Termination Fee***), in addition to any amount payable to Vital pursuant to Section 9.3(d) or Section 9.3(e).

(iii) If this Agreement is terminated by Vital pursuant to Section 9.1(h), then Vital shall pay to Immunic, concurrent with such termination, the Immunic Termination Fee, in addition to any amount payable to Immunic pursuant to Section 9.3(c) or Section 9.3(e).

(c) (i) If this Agreement is terminated by Immunic pursuant to Section 9.1(d), Section 9.1(e) or Section 9.1(f), or (ii) if this Agreement is terminated by Vital pursuant to Section 9.1(d) or Section 9.1(h), or (iii) in the event of a failure of Immunic to consummate the transactions to be consummated at the Closing solely as a result of a Vital Material Adverse Effect as set forth in Section 8.3 (provided, that at such time all of the other conditions precedent to Vital s obligation to close set forth in Article 6 and Article 7 of this Agreement have been satisfied by Immunic, are capable of being satisfied by Immunic or have been waived by Vital), then Vital shall reimburse Immunic for all reasonable fees and expenses incurred by Immunic in connection with this Agreement and the transactions contemplated hereby, including (A) all fees and expenses incurred in connection with the preparation, printing and filing, as applicable, of the Form S-4 Registration Statement (including any preliminary materials related thereto and all amendments and supplements thereto, as well as any financial statements and schedules thereto) and (B) all fees and expenses incurred in connection with the preparation and filing under any filing requirement of any Governmental Body applicable to this Agreement and the transactions contemplated hereby (such expenses, including (A) and (B) above, collectively, the ***Third-Party Expenses***), up to a maximum of $275,000, by wire transfer of same-day funds within five (5) Business Days following the date on which Immunic submits to Vital true and correct copies of reasonable documentation supporting such Third-Party Expenses; provided, however, that such Third-Party Expenses shall not include any amounts for a financial advisor to Immunic except for reasonably documented out-of-pocket expenses otherwise reimbursable by Immunic to such financial advisor pursuant to the terms of Immunic s engagement letter or similar arrangement with financial advisor.

(d) (i) If this Agreement is terminated by Vital pursuant to Section 9.1(g) or Section 9.1(i) or (ii) in the event of a failure of Vital to consummate the transactions to be consummated at the Closing solely as a result of an Immunic Material Adverse Effect as set forth in Section 7.3 (provided, that at such time all of the other conditions precedent to Immunic s obligation to close set forth in Article 6 and Article 8 of this Agreement have

been satisfied by Vital, are capable of being satisfied by Vital or have been waived by Immunic), then Immunic shall reimburse Vital for all Third-Party Expenses incurred by Vital up to a maximum of $275,000, by wire transfer of same-day funds within 10 Business Days following the date on which Vital submits to Immunic true and correct copies of reasonable documentation supporting such Third-Party Expenses; provided, however, that such Third-Party Expenses shall not include any amounts for a financial advisor to Vital except for reasonably documented out-of-pocket expenses otherwise reimbursable by Vital to such financial advisor pursuant to the terms of Vital s engagement letter or similar arrangement with financial advisor.

(e) If either Party fails to pay when due any amount payable by such Party under Section 9.3(b), Section 9.3(c), or Section 9.3(d), then (i) such Party shall reimburse the other Party for reasonable costs and expenses (including reasonable fees and disbursements of counsel) incurred in connection with the collection of such overdue amount and the enforcement by the other Party of its rights under this Section 9.3, and (ii) such Party shall pay to the other Party interest on such overdue amount (for the period commencing as of the date such overdue amount was originally required to be paid and ending on the date such overdue amount is actually paid to the other Party in full) at a rate per annum equal to the prime rate (as announced by Bank of America or any successor thereto) in effect on the date such overdue amount was originally required to be paid.

9.4 Effect of Payment of Termination Fees and Expenses.

(a) The Parties and each Holder agree that the payment of the fees and expenses set forth in Section 9.3, subject to Section 9.2, shall be the sole and exclusive remedy of each Party or Holder following a termination of this Agreement under the circumstances described in Section 9.3, it being understood that in no event shall either Vital or Immunic be required to pay fees or damages payable pursuant to Section 9.3 on more than one occasion.

(b) Each of the Parties and the Holders acknowledge that (i) the agreements contained in Section 9.3 and this Section 9.4 are an integral part of the Contemplated Transactions, (ii) without these agreements, the Parties and the Holders would not enter into this Agreement, and (iii) any amounts payable pursuant to Section 9.3 are not a penalty, but rather are liquidated damages in a reasonable amount that will compensate the Parties and the Holders in the circumstances in which such amounts are payable.

(c) If either Party elects to exercise its right to terminate this Agreement pursuant to Section 9.1 and receives payment of the fees and Third-Party Expenses set forth in Section 9.3, then the non-terminating Party and its Affiliates will not have any liability beyond payment of the fees and Third-Party Expenses set forth in Section 9.3, and the terminating Party shall not be entitled to bring or maintain any other claim, action or proceeding against the non-terminating Party, and the terminating Party shall be precluded from any other remedy against the non-terminating Party, at law or in equity or otherwise, and shall not seek to obtain any recovery, judgment or damages of any kind against the other (or any partner, member, stockholder, director, officer, employee, Subsidiary, affiliate, agent or other representative of such non-terminating Party) in connection with or arising out of the termination of this Agreement, any breach by the non-terminating Party giving rise to such termination or the failure of the Contemplated Transactions to be consummated. For the avoidance of doubt, (i) nothing in this Article 9 shall prevent Vital from seeking to enforce its rights under the Subscription Agreements or to seek specific performance pursuant to Section 10.10 prior to the termination of this Agreement pursuant to this Article 9 and (ii) nothing in this Agreement shall relieve or limit the liability of an Party or Holder for its fraud.

ARTICLE 10. MISCELLANEOUS PROVISIONS

10.1 Non-Survival of Representations and Warranties. The representations and warranties of Immunic, the Holders and Vital contained in this Agreement or any certificate or instrument delivered pursuant to this Agreement

shall terminate at the Effective Time, and only the covenants that by their terms survive the Effective Time and this Section 10.1 shall survive the Effective Time.

10.2 Amendment. This Agreement may be amended with the approval of the respective Boards of Directors of Immunic and Vital at any time (whether before or after obtaining the Required Vital Stockholder

Vote); *provided*, *however*, that (a) no representation, warranty or covenant in this Agreement with respect to a Holder may be amended unless such amendment applies to all Holders in the same fashion and the Parties obtain the approval of such amendment from the Holders who own a majority of the then outstanding Immunic Shares, and (b) after obtaining the Required Vital Stockholder Vote, no amendment shall be made, which by applicable Legal Requirement requires further approval of the Vital Stockholders, without the further approval of the Vital Stockholders. Subject to the foregoing, this Agreement may not be amended.

10.3 Waiver.

(a) No failure on the part of any Party or Holder to exercise any power, right, privilege or remedy under this Agreement, and no delay on the part of any Party or Holder in exercising any power, right, privilege or remedy under this Agreement, shall operate as a waiver of such power, right, privilege or remedy; and no single or partial exercise of any such power, right, privilege or remedy shall preclude any other or further exercise thereof or of any other power, right, privilege or remedy.

(b) No Party or Holder shall be deemed to have waived any claim arising out of this Agreement, or any power, right, privilege or remedy under this Agreement, unless the waiver of such claim, power, right, privilege or remedy is expressly set forth in a written instrument duly executed and delivered on behalf of such Party or Holder; and any such waiver shall not be applicable or have any effect except in the specific instance in which it is given.

10.4 Entire Agreement; Counterparts; Exchanges by Facsimile. This Agreement and the other agreements referred to in this Agreement constitute the entire agreement and supersede all prior agreements and understandings, both written and oral, among or between any of the Parties and the Holders with respect to the subject matter hereof and thereof; *provided*, *however*, that the Confidentiality Agreement shall not be superseded and shall remain in full force and effect in accordance with its terms. This Agreement may be executed in several counterparts, each of which shall be deemed an original and all of which shall constitute one and the same instrument. The exchange of a fully executed Agreement (in counterparts or otherwise) by all Parties and Holders by facsimile or electronic transmission in .PDF format shall be sufficient to bind the Parties and the Holders to the terms and conditions of this Agreement.

10.5 Applicable Law; Jurisdiction. This Agreement shall be governed by, and construed in accordance with, the laws of the State of Delaware, regardless of the laws that might otherwise govern under applicable principles of conflicts of laws. In any action or suit between any of the Parties and/or the Holders arising out of or relating to this Agreement or any of the Contemplated Transactions: (a) each of the Parties and the Holders irrevocably and unconditionally consents and submits to the exclusive jurisdiction and venue of the state and federal courts located in the State of Delaware; and (b) each of the Parties and the Holders irrevocably waives the right to trial by jury.

10.6 Attorneys Fees. In any action at law or suit in equity to enforce this Agreement or the rights of any of the parties under this Agreement, the prevailing party in such action or suit shall be entitled to receive a reasonable sum for its attorneys fees and all other reasonable costs and expenses incurred in such action or suit.

10.7 Assignability; No Third Party Beneficiaries. This Agreement shall be binding upon, and shall be enforceable by and inure solely to the benefit of, the Parties hereto, the Holders and their respective successors and assigns; provided, however, that neither this Agreement nor any of a Party s or Holder s rights or obligations hereunder may be assigned or delegated by such Party or Holder (as applicable) without the prior written consent of the Parties, and any attempted assignment or delegation of this Agreement or any of such rights or obligations by such Party or Holder without the Parties prior written consents shall be void and of no effect. Nothing in this Agreement, express or implied, is intended to or shall confer upon any Person (other than the parties hereto and the D&O Indemnified Parties to the extent of their respective rights pursuant to Section 5.7) any right, benefit or remedy of any nature whatsoever

under or by reason of this Agreement.

Table of Contents

10.8 Notices. Any notice or other communication required or permitted to be delivered to any Party and Holder under this Agreement shall be in writing and shall be deemed properly delivered, given and received when delivered by hand, by registered mail, by courier or express delivery service, electronic mail, or by facsimile to the address, electronic mail address, or facsimile telephone number set forth beneath the name of such party below (or to such other address, electronic mail address, or facsimile telephone number as such party has specified in a written notice given to the other parties hereto):

if to Vital:

VITAL THERAPIES, INC.

15222-B Avenue of Science

San Diego, CA 92128

Telephone No.: (858) 673-6840

Attention: Chief Executive Officer

E-mail:

with a copy to:

Pillsbury Winthrop Shaw Pittman LLP

12255 El Camino Real, Suite 300

San Diego, California 92130

Telephone No.: (858) 509-4000

Facsimile No.: (858) 509-4010

Attention: Mike Hird

E-mail: mike.hird@pillsburylaw.com

if to Immunic or a Holder:

IMMUNIC AG

Am Klopferspitz 19

82152 Planegg-Martinsried

Germany

Telephone No.:

Attention: President & Chief Executive Officer

E-mail:

with a copy to:

Dentons Europe LLP

Jungfernturmstr. 2

80333 Munich

Germany

Telephone No.: +49 89 244408 442

Facsimile No.: +49 89 244408 133

Attention: Thomas Strassner

E-Mail: thomas.strassner@dentons.com

and

Dentons US LLP

1221 Avenue of the Americas

New York, NY 10020-1089

United States

Telephone No.: (212) 632 5556

Facsimile No.: (212) 768 6800

Attention: Ilan Katz

E-Mail: ilan.katz@dentons.com

Table of Contents

10.9 Severability. Any term or provision of this Agreement that is invalid or unenforceable in any situation in any jurisdiction shall not affect the validity or enforceability of the remaining terms and provisions of this Agreement or the validity or enforceability of the offending term or provision in any other situation or in any other jurisdiction. If a final judgment of a court of competent jurisdiction declares that any term or provision of this Agreement is invalid or unenforceable, the Parties and the Holders hereto agree that the court making such determination will have the power to limit such term or provision, to delete specific words or phrases or to replace such term or provision with a term or provision that is valid and enforceable and that comes closest to expressing the intention of the invalid or unenforceable term or provision, and this Agreement shall be valid and enforceable as so modified. In the event such court does not exercise the power granted to it in the prior sentence, the Parties and the Holders hereto agree to replace such invalid or unenforceable term or provision with a valid and enforceable term or provision that will achieve, to the extent possible, the economic, business and other purposes of such invalid or unenforceable term or provision.

10.10 Other Remedies; Specific Performance. Except as otherwise provided herein, any and all remedies herein expressly conferred upon a Party or Holder will be deemed cumulative with and not exclusive of any other remedy conferred hereby, or by law or equity upon such Party or Holder, and the exercise by a Party or Holder of any one remedy will not preclude the exercise of any other remedy. The Parties and the Holders hereto agree that irreparable damage would occur in the event that any of the provisions of this Agreement were not performed in accordance with their specific terms or were otherwise breached. It is accordingly agreed that the Parties and the Holders shall be entitled to seek an injunction or injunctions to prevent breaches of this Agreement and to enforce specifically the terms and provisions hereof in any court of the United States or any state having jurisdiction, this being in addition to any other remedy to which they are entitled at law or in equity, and each of the Parties and the Holders hereto waives any bond, surety or other security that might be required of any other Party or Holder with respect thereto.

10.11 Construction.

(a) For purposes of this Agreement, whenever the context requires: the singular number shall include the plural, and vice versa; the masculine gender shall include the feminine and neuter genders; the feminine gender shall include the masculine and neuter genders; and the neuter gender shall include masculine and feminine genders.

(b) The Parties and the Holders hereto agree that any rule of construction to the effect that ambiguities are to be resolved against the drafting Party shall not be applied in the construction or interpretation of this Agreement.

(c) As used in this Agreement, the words include and including, and variations thereof, shall not be deemed to be terms of limitation, but rather shall be deemed to be followed by the words without limitation.

(d) Except as otherwise indicated, all references in this Agreement to Sections, Articles, Exhibits and Schedules a intended to refer to Sections or Articles of this Agreement and Exhibits and Schedules to this Agreement, respectively.

(e) The bold-faced headings contained in this Agreement are for convenience of reference only, shall not be deemed to be a part of this Agreement and shall not be referred to in connection with the construction or interpretation of this Agreement.

[*Remainder of page intentionally left blank*]

Table of Contents

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed as of the date first above written.

VITAL THERAPIES, INC.

By: */s/Russell J. Cox*
Name: Russell J. Cox
Title: Chief Executive Officer

IMMUNIC AG

By: */s/Michael Singer*
Name: Michael Singer
Title: by virtue of power of attorney (for the CEO)

IMMUNIC AG

By: */s/Michael Singer*
Name: Michael Singer
Title: by virtue of power of attorney (for the Chairman of the Supervisory Board)

Listrax UG

By: */s/Thomas Strassner*
Name: Thomas Strassner
Title: by virtue of power of attorney

Gröppel Investments UG

By: */s/Thomas Strassner*
Name: Thomas Strassner
Title: by virtue of power of attorney

Constanze Investments UG

By: */s/Thomas Strassner*
Name: Thomas Strassner
Title: by virtue of power of attorney

Xanomed UG

By: */s/Thomas Strassner*
Name: Thomas Strassner
Title: by virtue of power of attorney

Table of Contents

LSP V Coöperatieve U.A.

By: */s/Thomas Strassner*
Name: Thomas Strassner
Title: by virtue of power of attorney

Dr. Gerhard Ries

By: */s/Thomas Strassner*
Name: Thomas Strassner
Title: by virtue of power of attorney

Gabriel Eckenstein

By: */s/Thomas Strassner*
Name: Thomas Strassner
Title: by virtue of power of attorney

Eckenstein-Geigy-Stiftung

By: */s/Thomas Strassner*
Name: Thomas Strassner
Title: by virtue of power of attorney

Bayern Kapital Innovationsfonds GmbH & Co. KG

By: */s/Thomas Strassner*
Name: Thomas Strassner
Title: by virtue of power of attorney

Wachstumsfonds Bayern GmbH & Co. KG

By: */s/Thomas Strassner*
Name: Thomas Strassner
Title: by virtue of power of attorney

High-Tech Gründerfonds II GmbH & Co. KG

By: */s/Thomas Strassner*
Name: Thomas Strassner
Title: by virtue of power of attorney

IBG Risikokapitalfonds II GmbH & Co. KG

By: */s/Thomas Strassner*
Name: Thomas Strassner
Title: by virtue of power of attorney

Table of Contents

Fund+ N.V.

By: */s/Thomas Strassner*
Name: Thomas Strassner
Title: by virtue of power of attorney

Global Life Bioventure V S.à r.l.

By: */s/Thomas Strassner*
Name: Thomas Strassner
Title: by virtue of power of attorney

Table of Contents

EXHIBIT B

CERTAIN DEFINITIONS

For purposes of the Agreement (including this Exhibit B):

ACA has the meaning set forth in Section 3.10(m).

Accounting Firm has the meaning set forth in Section 1.5(e).

Acquisition Agreement has the meaning set forth in Section 4.5(a).

Acquisition Inquiry means, with respect to a Party, an inquiry, indication of interest or request for information (other than an inquiry, indication of interest or request for information made or submitted by Immunic, on the one hand, or Vital, on the other hand, to the other Party) that would reasonably be expected to lead to an Acquisition Proposal with such Party.

Acquisition Proposal means, with respect to a Party, any offer or proposal, whether written or oral (other than an offer or proposal made or submitted by or on behalf of Immunic or any of its Affiliates, on the one hand, or by or on behalf of Vital or any of its Affiliates, on the other hand, to the other Party) made by a third party contemplating or otherwise relating to any Acquisition Transaction with such Party.

Acquisition Transaction means any transaction or series of transactions involving: (a) any merger, consolidation, amalgamation, share exchange, business combination, issuance of securities, acquisition of securities, reorganization, recapitalization, tender offer, exchange offer or other similar transaction: (i) in which a Party is a constituent corporation; (ii) in which a Person or group (as defined in the Exchange Act and the rules promulgated thereunder) of Persons directly or indirectly acquires beneficial or record ownership of securities representing more than 20% of the outstanding securities of any class of voting securities of a Party or any of its Subsidiaries; or (iii) in which a Party or any of its Subsidiaries issues securities representing more than 20% of the outstanding securities of any class of voting securities of such Party or any of its Subsidiaries; provided, however, in the case of Immunic, the Immunic Pre-Closing Financing shall not be an Acquisition Transaction ; (b) any sale, lease, exchange, transfer, license, acquisition or disposition of any business or businesses or assets that constitute or account for 20% or more of the consolidated book value or the fair market value of the assets of a Party and its Subsidiaries, taken as a whole, other than the sale, divestiture and/or winding down of the Vital Legacy Business or the sale, license or other disposition of any or all of the Vital Legacy Assets by Vital; or (c) any tender offer or exchange offer, that if consummated would result in any Person beneficially owning 20% or more of the outstanding equity securities of a Party or any of its Subsidiaries.

Affiliates has the meaning for such term as used in Rule 145 under the Securities Act.

Agreement has the meaning set forth in the Preamble.

Allocation Certificate has the meaning set forth in Section 1.13(b).

Anticipated Closing Date has the meaning set forth in Section 1.5(a).

Business Day means any day other than a day on which banks in the State of New York are authorized or obligated to be closed.

Certifications has the meaning set forth in Section 3.5(a).

Closing has the meaning set forth in Section 1.2.

Table of Contents

Closing Date has the meaning set forth in Section 1.2.

COBRA means the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended, as set forth in Section 4980B of the Code and Part 6 of Title I of ERISA.

Code means the Internal Revenue Code of 1986, as amended.

Confidentiality Agreement means the Confidentiality Agreement, dated as of October 15, 2018, between Immunic and Vital.

Consent means any approval, consent, ratification, permission, waiver or authorization (including any Governmental Authorization).

Consideration has the meaning set forth in Section 1.4(a).

Contemplated Transactions means the Transaction, the Reverse Split, the Immunic Pre-Closing Financing, and the other transactions and actions contemplated by the Agreement.

Contract shall, with respect to any Person, mean any written agreement, contract, subcontract, lease (whether real or personal property), mortgage, understanding, arrangement, instrument, note, option, warranty, purchase order, license, sublicense, insurance policy, benefit plan or legally binding commitment or undertaking of any nature to which such Person is a party or by which such Person or any of its assets are bound or affected under applicable law.

Costs has the meaning set forth in Section 5.7(a).

D&O Indemnified Parties has the meaning set forth in Section 5.7(a).

Dentons has the meaning set forth in Section 5.1(b).

Determination Date has the meaning set forth in Section 1.5(a).

DGCL means the General Corporation Law of the State of Delaware.

Dispute Notice has the meaning set forth in Section 1.5(b).

Drug Regulatory Agency has the meaning set forth in Section 2.12(c).

Effect means any effect, change, event, circumstance, or development.

Effective Time has the meaning set forth in Section 1.2.

EMEA has the meaning set forth in Section 2.12(c).

Encumbrance means any lien, pledge, hypothecation, charge, mortgage, security interest, encumbrance, claim, infringement, interference, option, right of first refusal, preemptive right, community property interest or restriction of any nature (including any restriction on the voting of any security, any restriction on the transfer of any security or other asset, any restriction on the receipt of any income derived from any asset, any restriction on the use of any asset and any restriction on the possession, exercise or transfer of any other attribute of ownership of any asset).

AB-2

Table of Contents

Entity means any corporation (including any non-profit corporation), partnership (including any general partnership, limited partnership or limited liability partnership), joint venture, estate, trust, company (including any company limited by shares, limited liability company or joint stock company), firm, society or other enterprise, association, organization or entity, and each of its successors.

Environmental Law means any federal, state, local or foreign Legal Requirement relating to pollution or protection of human health or the environment (including ambient air, surface water, ground water, land surface or subsurface strata), including any law or regulation relating to emissions, discharges, releases or threatened releases of Hazardous Materials, or otherwise relating to the manufacture, processing, distribution, use, treatment, storage, disposal, transport or handling of Hazardous Materials.

ERISA means the Employee Retirement Income Security Act of 1974, as amended.

Exchange Act means the Securities Exchange Act of 1934, as amended.

Exchange Agent has the meaning set forth in Section 1.7(a).

Exchange Fund has the meaning set forth in Section 1.7(a).

Exchange Ratio means, subject to Section 1.4(d), the following ratio (with such ratio being calculated to the nearest 1/10,000 of a share): the quotient obtained by *dividing* (a) the Immunic Transaction Shares *by* (b) the Immunic Outstanding Shares, in which:

Immunic Allocation Percentage means 1.00 *minus* the Vital Allocation Percentage.

Immunic Associate Transaction Payout Excess means the aggregate amount (if any) of all payments to be made to any current or former employee, consultant, independent contractor or director of Immunic in connection with the Transaction or the other Contemplated Transactions (including pursuant to the Immunic Virtual Stock Option Plan or based upon any other stock option equivalents held by any such Person) to the extent in excess of Three Hundred Thousand Dollars ($300,000).

Immunic Exchange Ratio Valuation means the Immunic Post-Financing Valuation *minus* the Immunic Associate Transaction Payout Excess.

Immunic Outstanding Shares means, subject to Section 1.4(d), the total number of shares of Immunic Common Stock outstanding immediately prior to the Effective Time expressed on a fully-diluted and as-converted to Immunic Common Stock basis and assuming, without limitation or duplication, the issuance of shares of Immunic Common Stock in respect of all options, warrants or rights to receive such shares that will be outstanding immediately after the Effective Time. For the avoidance of doubt, all Immunic Common Shares issued in, or issuable as the result of, the Immunic Pre-Closing Financing and Immunic Exit Bonus Agreements, and any Immunic Shares issuable under (or in respect of any payment otherwise due pursuant to) any agreement or arrangement referenced in Section 2.4(c) of the Immunic Disclosure Schedule, shall be included in such total (*i.e.*, the Immunic Allocation Percentage and Vital Allocation Percentage

contemplated by the Exchange Ratio are intended to be determined taking into account the consummation of the Immunic Pre-Closing Financing and the Immunic Exit Bonus Agreements as well as any issuances or payments occurring pursuant to any agreement or arrangement referenced in Section 2.4(c) of the Immunic Disclosure Schedule).

Immunic Post-Financing Valuation means the product determined by *multiplying* (a) the number of Immunic Outstanding Shares *by* (b) the Price Per Share, where (i) the ***Price Per Share*** means the price per Immunic Common Share paid in the Immunic Pre-Closing Financing, except that the Price Per Share shall be recalculated based upon a Pre-Money Valuation of Eighty-Five Million Dollars ($85,000,000) if the actual Pre-Money Valuation is higher than such amount, and (ii) ***Pre-Money***

Table of Contents

Valuation means the product determined by *multiplying* (X) the number of Immunic Outstanding Shares, excluding the Immunic Common Shares issued in, or issuable as the result of, the Immunic Pre-Closing Financing *by* (Y) the price per Immunic Common Share paid in the Immunic Pre-Closing Financing.

Immunic Transaction Shares means the product determined by *multiplying* (a) the Post-Closing Vital Shares *by* (b) the Immunic Allocation Percentage.

Minimum Cash Amount means One Million Five Hundred Thousand Dollars ($1,500,000); *provided, however,* that if the Closing occurs after March 31, 2019, then the Minimum Cash Amount shall be *reduced* by Five Thousand Dollars ($5,000) for each day (including any partial day) after March 31, 2019 until the Closing.

Post-Closing Vital Shares mean the quotient determined by *dividing* (a) the Vital Outstanding Shares *by* (b) the Vital Allocation Percentage.

Vital Allocation Percentage means the quotient determined by *dividing* (a) the Vital Exchange Ratio Valuation *by* (b) the sum of (i) the Vital Exchange Ratio Valuation *plus* (ii) the Immunic Exchange Ratio Valuation.

Vital Exchange Ratio Cash means Four Million Seven Hundred Thousand Dollars ($4,700,000); *provided, however*, that if Vital s Net Cash determined pursuant to Section 1.5 is less than Four Million Two Hundred Thousand Dollars ($4,200,000) or greater than Five Million Two Hundred Thousand Dollars ($5,200,000), then the Vital Exchange Ratio Cash shall be Vital s Net Cash determined pursuant to Section 1.5.

Vital Exchange Ratio Valuation means the sum of the Vital Pre-Closing Valuation *plus* the Vital Exchange Ratio Cash.

Vital Pre-Closing Valuation means Nine Million Six Hundred Thousand Dollars ($9,600,000); *provided, however,* that if Vital s Net Cash determined pursuant to Section 1.5 is less than the Minimum Cash Amount, then the Vital Pre-Closing Valuation means Seven Million Dollars ($7,000,000).

Vital Outstanding Shares means, subject to Section 1.4(d), the total number of shares of Vital Common Stock outstanding immediately prior to the Effective Time expressed assuming, without limitation or duplication, (a) the exercise of each Vital Option outstanding and unexercised immediately prior to the Effective Time that has an exercise price less than or equal to the then current trading price for shares of Vital Common Stock (i.e., in-the-money options), excluding any portion thereof which cannot become vested or exercisable (due, for example, to a termination of service) or will otherwise not be outstanding immediately after the Effective Time, (b) the settlement in shares of Vital Common Stock of each Vital RSU outstanding as of the Effective Time (including the Vital Severance RSUs), excluding any portion thereof which cannot become vested or exercisable (due, for example, to a termination of service) or will otherwise

not be outstanding immediately after the Effective Time, and (c) the exercise of each Vital Warrant outstanding and unexercised immediately prior to the Effective Time that has an exercise price less than or equal to the then current trading price for shares of Vital Common Stock (i.e., in-the-money warrants) and will be outstanding immediately after the Effective Time. For the avoidance of doubt, shares of Vital Common Stock issuable upon the exercise of Vital Options or Vital Warrants that are not in-the-money immediately prior to the Effective Time will be excluded from the calculation of Vital Outstanding Shares.

Existing Immunic D&O Policies has the meaning set forth in Section 2.16(b).

Existing Vital D&O Policies has the meaning set forth in Section 3.12(b).

FDA has the meaning set forth in Section 2.12(c).

Table of Contents

FDCA has the meaning set forth in Section 2.12(c).

Form S-4 Registration Statement means the registration statement on Form S-4 to be filed with the SEC by Vital registering the public offering and sale of Vital Common Stock to all Holders in the Transaction, including all shares of Vital Common Stock to be issued in exchange for all Immunic Shares in the Transaction, as said registration statement may be amended prior to the time it is declared effective by the SEC.

GAAP means United States generally accepted accounting principles.

Governmental Authorization means any: (a) permit, license, certificate, franchise, permission, variance, exceptions, orders, clearance, registration, qualification or authorization issued, granted, given or otherwise made available by or under the authority of any Governmental Body or pursuant to any Legal Requirement; or (b) right under any Contract with any Governmental Body.

Governmental Body means any: (a) nation, state, commonwealth, province, territory, county, municipality, district or other jurisdiction of any nature; (b) federal, state, local, municipal, foreign or other government; (c) governmental or quasi-governmental body of any nature (including any governmental division, department, agency, commission, instrumentality, official, ministry, fund, foundation, center, organization, unit, body or Entity and any court or other tribunal, and for the avoidance of doubt, any Tax authority); or (d) self-regulatory organization (including Nasdaq and the Financial Industry Regulatory Authority).

Hazardous Materials means any pollutant, chemical, substance and any toxic, infectious, carcinogenic, reactive, corrosive, ignitable or flammable chemical, or chemical compound, or hazardous substance, material or waste, whether solid, liquid or gas, that is subject to regulation, control or remediation under any Environmental Law, including crude oil or any fraction thereof, and petroleum products or by-products.

Holder has the meaning set forth in the Preamble.

HSR Act means the Hart-Scott-Rodino Antitrust Improvements Act of 1976, as amended.

IFRS means International Financial Reporting Standards promulgated by the IASB.

Immunic has the meaning set forth in the Preamble.

Immunic Affiliate means any Person that is (or at any relevant time was) under common control with Immunic within the meaning of Sections 414(b), (c), (m) and (o) of the Code, and the regulations issued thereunder.

Immunic Articles has the meaning set forth in the Recitals.

Immunic Associate means any current employee, independent contractor, officer or director of Immunic or any Immunic Affiliate.

Immunic Board of Directors has the meaning set forth in the Recitals.

Immunic Board Recommendation has the meaning set forth in Section 5.2(b).

Immunic Common Shares has the meaning set forth in the Recitals.

Immunic Contract means any Contract: (a) to which Immunic or any of its Subsidiaries is a party; or (b) by which Immunic or any Immunic Subsidiary or any Immunic IP Rights or any other asset of Immunic or its Subsidiaries is bound or under which Immunic or any Immunic Subsidiary has any obligation.

Table of Contents

Immunic Disclosure Schedule has the meaning set forth in Article 2.

Immunic Employee Plan has the meaning set forth in Section 2.14(e).

Immunic Exit Bonus Agreements means the Exit Bonus Agreements dated [*], between Immunic and each of Manfred Gröppel, Andreas Mühler, Daniel Vitt and Hella Kohlhof.

Immunic Exit Bonus Shares means the Immunic Common Shares to be issued immediately prior to the Closing pursuant to the terms of the Immunic Exit Bonus Agreements.

Immunic Financials has the meaning set forth in Section 2.5(a).

Immunic IP Rights means all Intellectual Property owned, licensed or controlled by Immunic or any of its Subsidiaries that is necessary or used in the business of Immunic and its Subsidiaries as presently conducted or as presently proposed to be conducted.

Immunic IP Rights Agreement means any instrument or agreement governing, related or pertaining to any Immunic IP Rights.

Immunic Leases has the meaning set forth in Section 2.8.

Immunic Material Adverse Effect means any Effect that, considered together with all other Effects that have occurred prior to the date of determination of the occurrence of the Immunic Material Adverse Effect, is or would reasonably be expected to be materially adverse to, or has or would reasonably be expected to have or result in a material adverse effect on: (a) the business, condition (financial or otherwise), capitalization, assets, operations or financial performance of Immunic and its Subsidiaries taken as a whole; or (b) the ability of Immunic or a Holder to consummate the Contemplated Transactions or to perform any of its covenants or obligations under the Agreement in all material respects; *provided*, *however*, that Effects from the following shall not be deemed to constitute (nor shall Effects from any of the following be taken into account in determining whether there has occurred) an Immunic Material Adverse Effect: (i) any rejection by a Governmental Body of a registration or filing by Immunic relating to the Immunic IP Rights; (ii) any change in the cash position of Immunic which results from operations in the Ordinary Course of Business; (iii) conditions generally affecting the industries in which Immunic and its Subsidiaries participate or the global economy or capital markets as a whole, to the extent that such conditions do not have a disproportionate impact on Immunic and its Subsidiaries taken as a whole; (iv) any failure by Immunic or any of its Subsidiaries to meet internal projections or forecasts on or after the date of this Agreement (it being understood, however, that any Effect causing or contributing to any such failure to meet projections or forecasts may constitute a Immunic Material Adverse Effect and may be taken into account in determining whether a Immunic Material Adverse Effect has occurred); (v) any natural disaster or any acts of terrorism, sabotage, military action or war or any escalation or worsening thereof; or (vi) any changes (after the date of this Agreement) in GAAP, IFRS or applicable Legal Requirements.

Immunic Material Contract has the meaning set forth in Section 2.10(a).

Immunic Permits has the meaning set forth in Section 2.12(b).

Immunic Pre-Closing Financing means an acquisition of Immunic Common Shares to be consummated prior to the Closing by the Holders pursuant to the Subscription Agreement with gross proceeds of at least twenty six million, two hundred and twenty seven thousand Euros (26,227,000).

Immunic Pre-Closing Financing Shares has the meaning set forth in the Recitals.

Immunic Preferred Shares has the meaning set forth in the Recitals.

Table of Contents

Immunic Product Candidates has the meaning set forth in Section 2.12(d).

Immunic Registered IP means all Immunic IP Rights that are registered, filed or issued under the authority of, with or by any Governmental Body, including all patents, registered copyrights and registered trademarks and all applications for any of the foregoing.

Immunic Regulatory Permits has the meaning set forth in Section 2.12(d).

Immunic Shareholder Matters has the meaning set forth in Section 5.2(a).

Immunic Shares has the meaning set forth in the Recitals.

Immunic Stock Certificate has the meaning set forth in Section 1.6.

Immunic Subsidiary has the meaning set forth in Section 2.1(a).

Immunic Termination Fee has the meaning set forth in Section 9.3(b).

Immunic Unaudited Interim Balance Sheet means the unaudited consolidated balance sheet of Immunic as of September 30, 2018.

Immunic Virtual Stock Option Plan means the Immunic Virtual Stock Option Plan for Key Employees and Advisors.

Intellectual Property means (a) United States, foreign and international patents, patent applications, including provisional applications, statutory invention registrations, invention disclosures and inventions, (b) trademarks, service marks, trade names, domain names, URLs, trade dress, logos and other source identifiers, including registrations and applications for registration thereof, (c) copyrights, including registrations and applications for registration thereof, and (d) software, formulae, customer lists, trade secrets, know-how, confidential information and other proprietary rights and intellectual property, whether patentable or not.

Investor Agreements shall have the meaning set forth in Section 5.16.

IRS means the United States Internal Revenue Service.

Knowledge means, (a) with respect to Vital, the actual knowledge of [*] and [*], after reasonable inquiry; and (b) with respect to Immunic, the actual knowledge of [*] and [*], after reasonable inquiry.

Legal Proceeding means any action, suit, litigation, arbitration, proceeding (including any civil, criminal, administrative, investigative or appellate proceeding), hearing, inquiry, audit, examination or investigation commenced, brought, conducted or heard by or before, or otherwise involving, any court or other Governmental Body or any arbitrator or arbitration panel.

Legal Requirement means any federal, state, foreign, material local or municipal or other law, statute, constitution, principle of common law, resolution, ordinance, code, edict, decree, rule, regulation, ruling or requirement issued, enacted, adopted, promulgated, implemented or otherwise put into effect by or under the authority of any Governmental Body.

Liability has the meaning set forth in Section 2.11.

Multiemployer Plan means (a) a multiemployer plan, as defined in Section 3(37) or 4001(a)(3) of ERISA, or (b) a plan which if maintained or administered in or otherwise subject to the laws of the United States would be described in paragraph (a).

Table of Contents

Multiple Employer Plan means (a) a multiple employer plan within the meaning of Section 413(c) of the Code or Section 3(40) of ERISA, or (b) a plan which if maintained or administered in or otherwise subject to the laws of the United States would be described in paragraph (a).

Nasdaq means The Nasdaq Stock Market.

Nasdaq Listing Application has the meaning set forth in Section 5.10.

Net Cash means (a) the sum of Vital s cash and cash equivalents, marketable securities, accounts, interest and other receivables (to the extent determined to be collectible), and deposits (to the extent refundable to Vital or applicable to the business of Vital post-Closing), in each case as of the Anticipated Closing Date, determined in a manner consistent with the manner in which such items were historically determined and in accordance with the Vital Audited Financial Statements and the Vital Unaudited Interim Balance Sheet, *minus* (b) the sum of Vital s accounts payable and accrued expenses (without duplication of any expenses accounted for below), in each case as of such date and determined in a manner consistent with the manner in which such items were historically determined and in accordance with the Vital Audited Financial Statements and the Vital Unaudited Interim Balance Sheet, *minus* (c) the cash cost of any unpaid change of control payments or severance, termination or similar payments, including any COBRA related obligations (excluding, for the avoidance of doubt, payments made in the form of Vital Severance RSUs) that are or become due as a result of the Contemplated Transactions to any current or former employee, director or independent contractor of Vital, *minus* (d) any unpaid fees and expenses (including any attorney s, accountant s, financial advisor s or finder s fees) for which Vital is liable and which have been incurred by Vital in connection with this Agreement and the Contemplated Transactions, *minus* (e) any and all other bona fide current and long-term Liabilities payable in cash that would be required to be set forth in a balance sheet prepared in accordance with GAAP (including any remaining post-Closing Liabilities on real property leases held by Vital as of the Anticipated Closing Date that have not been assigned or the subject of an effective sublease), in each case to the extent not paid or canceled at or prior to the Anticipated Closing Date or scheduled for cancellation prior to the Closing, *plus* or *minus* (f) the net amount of any transaction expense reimbursement owed to, or transaction expense payment owed by, Vital pursuant to Section 9.3(a), *plus* (g) the amount of any prepaid expenses for goods or services to be provided to Vital after the Closing, *plus* (h) any amounts paid by Vital or Liabilities incurred prior to the Closing that are approved in writing to be covered by insurance where payment will occur after the Closing (net, as applicable, of any deductible), *plus* (i) the amount of any consideration received by Vital for any Vital Legacy Transaction, or held in escrow in respect of any Vital Legacy Transaction and payable to Vital upon approval of any Vital Legacy Transaction at issue (including following the Closing) by the Vital Stockholders or upon a good faith determination by the Vital Board of Directors that any Vital Legacy Transaction at issue does not constitute the sale of all or substantially all of the assets of Vital, or otherwise reasonably certain of receipt by Vital (as determined in the sole discretion of Immunic), *plus* (j) 50% of the amounts paid or payable by Vital in respect of the audit of Vital s financial statements at and for the year ending December 31, 2018, as well as for the preparation of Vital s Annual Report on Form 10-K for the year ended December 31, 2018 and, if applicable, the preparation of Vital s Quarterly Report on Form 10-Q for the quarter ending March 31, 2019, *plus* (k) any amounts paid by Vital or Liabilities incurred in obtaining any regulatory approvals needed to ensure that the Vital Common Stock to be issued in the Transaction shall be registered or qualified or exempt from registration or qualification under the securities law of Germany as contemplated by Section 5.1(d), and *plus* (l) any amounts paid or payable by Vital for activities requested by Immunic (to the extent not otherwise in fulfillment of Vital s obligations under this Agreement).

Net Cash Calculation has the meaning set forth in Section 1.5(a).

Net Cash Schedule has the meaning set forth in Section 1.5(a).

New CSA has the meaning set forth in the Recitals.

Notice Period has the meaning set forth in Section 5.3(c).

Table of Contents

Ordinary Course of Business means, in the case of each of Immunic and Vital and for all periods, such actions taken in the ordinary course of its normal operations and consistent with its past practices; provided, however, that during the Pre-Closing Period, (a) the Ordinary Course of Business of each Party shall also include any actions expressly required or permitted by this Agreement, including with respect to the Contemplated Transactions, (b) the Ordinary Course of Business for Immunic shall also include actions undertaken in connection with preparing to become a SEC reporting company listed on the Nasdaq Global Market, and (c) the Ordinary Course of Business of Vital shall also include actions required to effect and effecting, in one or more transactions, the sale, divestiture and/or winding down of the Vital Legacy Business or the sale, license or other disposition of any or all of the Vital Legacy Assets; *provided*, *however*, that to the extent such sale, license or other disposition results in ongoing post-Closing obligations to Vital or Immunic, the terms of such sale, license or other disposition shall be reasonably acceptable to Immunic.

Outside Date has the meaning set forth in Section 9.1(b).

Party or ***Parties*** means Immunic and Vital.

Permitted Alternative Agreement means an Acquisition Agreement that constitutes a Superior Offer.

Person means any individual, Entity or Governmental Body.

Pre-Closing Period has the meaning set forth in Section 4.1.

Proxy Statement / Prospectus means the proxy statement/prospectus to be sent to Vital s stockholders in connection with the Vital Stockholders Meeting.

Representatives means directors, officers, other employees, agents, attorneys, accountants, investment bankers, advisors and representatives.

Required Vital Stockholder Vote has the meaning set forth in Section 3.2(b).

Response Date has the meaning set forth in Section 1.5(b).

Reverse Split means a reverse stock split of all outstanding (but not authorized) shares of Vital Common Stock at a reverse stock split ratio in a range mutually agreed to by Vital and Immunic.

Sarbanes-Oxley Act means the Sarbanes-Oxley Act of 2002, as it may be amended from time to time.

SEC means the United States Securities and Exchange Commission.

Securities Act means the Securities Act of 1933, as amended.

Subscription Agreement has the meaning set forth in the Recitals.

Subsequent Transaction means any Acquisition Transaction (with all references to 20% in the definition of Acquisition Proposal being treated as references to 50% for these purposes).

Subsidiary means an Entity of which another Person directly or indirectly owns or purports to own, beneficially or of record, (a) an amount of voting securities of other interests in such Entity that is sufficient to enable such Person to elect at least a majority of the members of such Entity s board of directors or other governing body, or (b) at least 50%

of the outstanding equity, voting, beneficial or financial interests in such Entity.

Table of Contents

Superior Offer means an unsolicited, bona fide Acquisition Proposal (with all references to 20% in the definition of Acquisition Proposal being treated as references to 50% for these purposes) made by a third party that (a) was not obtained or made as a direct or indirect result of a breach of (or in violation of) this Agreement; and (b) is on terms and conditions that the Vital Board of Directors determines, in its reasonable, good faith judgment, after obtaining and taking into account such matters that it deems relevant following consultation with its outside legal counsel and financial advisor, if any (i) is more favorable, from a financial point of view, to the Vital Stockholders than the terms of the Transaction; and (ii) is reasonably capable of being consummated; *provided*, *however*, that any such offer shall not be deemed to be a Superior Offer if any financing required to consummate the transaction contemplated by such offer is not committed and is not reasonably capable of being obtained by such third party.

Tax means any federal, state, local, foreign or other tax, including any income tax, franchise tax, capital gains tax, gross receipts tax, value-added tax, surtax, estimated tax, unemployment tax, national health insurance tax, excise tax, ad valorem tax, transfer tax, stamp tax, sales tax, use tax, property tax, business tax, withholding tax, payroll tax, customs duty, alternative or add-on minimum or other tax of any kind whatsoever, and including any fine, penalty, addition to tax or interest, whether disputed or not.

Tax Return means any return (including any information return), report, statement, declaration, estimate, schedule, notice, notification, form, election, certificate or other document or information, and any amendment or supplement to any of the foregoing, filed with or submitted to, or required to be filed with or submitted to, any Governmental Body in connection with the determination, assessment, collection or payment of any Tax or in connection with the administration, implementation or enforcement of or compliance with any Legal Requirement relating to any Tax.

Terminated Vital Associate Payments has the meaning set forth in Section 5.5(a).

Transaction has the meaning set forth in the Recitals.

Treasury Regulations means the United States Treasury regulations promulgated under the Code.

Vital 409A Plan has the meaning set forth in Section 3.10(k).

Vital has the meaning set forth in the Preamble.

Vital Affiliate means any Person that is (or at any relevant time was) under common control with Vital within the meaning of Sections 414(b), (c), (m) and (o) of the Code, and the regulations issued thereunder.

Vital Associate means any current or former employee, independent contractor, officer or director of Vital, any of its Subsidiaries or any Vital Affiliate.

Vital Audited Financial Statements means the audited consolidated financial statements included in Vital s Annual Report on Form 10-K filed with the SEC for the period ended December 31, 2017.

Vital Board Adverse Recommendation Change has the meaning set forth in Section 5.3(b).

Vital Board of Directors means the board of directors of Vital.

Vital Board Recommendation has the meaning set forth in Section 5.3(b).

Vital Capital Stock means Vital Common Stock and Vital preferred stock.

Vital Common Stock has the meaning set forth in Section 3.4(a).

Table of Contents

Vital Continued Benefit Plans has the meaning set forth in Section 5.5(b).

Vital Contract means any Contract: (a) to which Vital is a party; or (b) by which Vital or any Vital IP Rights or any other asset of Vital is bound or under which Vital has any obligation.

Vital Disclosure Schedule has the meaning set forth in Article 3.

Vital Employee Plan has the meaning set forth in Section 3.10(c).

Vital Equity Plans has the meaning set forth in Section 3.4(b).

Vital IP Rights means all Intellectual Property owned, licensed or controlled by Vital that is necessary or used in the business of Vital as presently conducted or as presently proposed to be conducted.

Vital Intervening Event has the meaning set forth in Section 5.3(c).

Vital Legacy Assets means all assets, technology and Intellectual Property of Vital as they existed at any time prior to the date of this Agreement.

Vital Legacy Business means the business of Vital as conducted at any time prior to the date of this Agreement.

Vital Legacy Transaction has the meaning set forth in Section 4.2(c).

Vital Material Adverse Effect means any Effect that, considered together with all other Effects that have occurred prior to the date of determination of the occurrence of the Vital Material Adverse Effect, is or would reasonably be expected to be or to become materially adverse to, or has or would reasonably be expected to have or result in a material adverse effect on: (a) the business, condition (financial or otherwise), capitalization, assets, operations or financial performance of Vital; or (b) the ability of Vital to consummate the Contemplated Transactions or to perform any of its covenants or obligations under the Agreement in all material respects; *provided*, *however*, that Effects from the following shall not be deemed to constitute (nor shall Effects from any of the following be taken into account in determining whether there has occurred) a Vital Material Adverse Effect: (i) any rejection by a Governmental Body of a registration or filing by Vital relating to the Vital IP Rights; (ii) any change in the cash position of Vital which results from operations in the Ordinary Course of Business; (iii) conditions generally affecting the industries in which Vital participates or the United States or global economy or capital markets as a whole, to the extent that such conditions do not have a disproportionate impact on Vital; (iv) any failure of Vital to meet internal projections or forecast or third-party revenue or earnings predictions for any period ending (or for which revenues or earnings are released) on or after the date of this Agreement or any change in the price or trading volume of Vital Common Stock (it being understood, however, that any Effect causing or contributing to any such failure to meet projections or predictions or any change in stock price or trading volume may constitute a Vital Material Adverse Effect and may be taken into account in determining whether a Vital Material Adverse Effect has occurred); (v) the sale or winding down of the Vital Legacy Business and Vital s operations, and the sale, license or other disposition of the Vital Legacy Assets; (vi) the execution, delivery, announcement or performance of the obligations under this Agreement or the announcement, pendency or anticipated consummation of the Transaction or the Immunic Pre-Closing Financing; (vii) any natural disaster or any acts of terrorism, sabotage, military action or war or any escalation or worsening thereof; or (viii) any changes (after the date of this Agreement) in GAAP, IFRS or applicable Legal Requirements.

Vital Material Contract has the meaning set forth in Section 3.16(a).

Vital Options means options to purchase shares of Vital Common Stock issued or granted by Vital.

Table of Contents

Vital Outstanding Shares Certificate has the meaning set forth in Section 1.3(a)

Vital Permits has the meaning set forth in Section 3.8(b).

Vital Regulatory Permits has the meaning set forth in Section 3.8(d).

Vital RSUs means a restricted stock unit covering shares of Vital Common Stock issued or granted by Vital.

Vital Severance RSUs means Vital RSUs which may be granted to certain Vital Associates, in the sole discretion of Vital, in an amount of up to approximately Two Million One Hundred Thousand Dollars ($2,100,000) in value in exchange for payments otherwise due to such Vital Associates (including in connection with termination of employment or service with Vital).

Vital Subsidiaries has the meaning set forth in Section 3.1(a).

Vital Stockholder means each holder of Vital Capital Stock, and ***Vital Stockholders*** means all Vital Stockholders.

Vital Stockholder Matters has the meaning set forth in Section 5.3(a).

Vital Stockholders Meeting has the meaning set forth in Section 5.3(a).

Vital Termination Fee has the meaning set forth in Section 9.3(b).

Vital Unaudited Interim Balance Sheet means the unaudited consolidated balance sheet of Vital included in Vital s Quarterly Report on Form 10-Q filed with the SEC for the period ended September 30, 2018.

Vital Warrants means the outstanding warrants to purchase Vital Capital Stock set forth in Section 3.4(a) of the Vital Disclosure Schedule.

Table of Contents

ANNEX B

AMENDMENT TO AMENDED AND RESTATED CERTIFICATE OF INCORPORATION NAME CHANGE

CERTIFICATE OF AMENDMENT OF

AMENDED AND RESTATED CERTIFICATE OF INCORPORATION

OF VITAL THERAPIES, INC.

VITAL THERAPIES, INC., a corporation organized and existing under and by virtue of the General Corporation Law of the State of Delaware (the DGCL), does hereby certify:

FIRST: The name of the corporation is Vital Therapies, Inc. (the Corporation).

SECOND: The date of filing of its original Certificate of Incorporation with the Secretary of State of the State of Delaware was January 13, 2004. The Amended and Restated Certificate of Incorporation was filed with the Secretary of State on April 23, 2014.

THIRD: The Board of Directors (the Board) of the Corporation, acting in accordance with the provisions of Sections 141 and 242 of the DGCL, adopted resolutions amending its Certificate of Incorporation as follows:

1. ARTICLE ONE of the Amended and Restated Certificate of Incorporation, as presently in effect, of the Corporation is hereby amended and restated in its entirety as follows:

The name of the corporation is Immunic, Inc. (the Corporation).

FOURTH: Thereafter, pursuant to a resolution by the Board, this Certificate of Amendment was submitted to the stockholders of the Corporation for their approval in accordance with the provisions of Section 211 and 242 of the DGCL. Accordingly, said proposed amendment has been adopted in accordance with Section 242 of the DGCL.

IN WITNESS WHEREOF, **VITAL THERAPIES, INC.** has caused this Certificate of Amendment to be signed by its duly authorized officer this _____ day of _____, 2019.

VITAL THERAPIES, INC.

By:
Name:
Title:

Table of Contents

ANNEX C

AMENDMENT TO AMENDED AND RESTATED CERTIFICATE OF INCORPORATION REVERSE STOCK SPLIT

CERTIFICATE OF AMENDMENT OF

AMENDED AND RESTATED CERTIFICATE OF INCORPORATION

OF VITAL THERAPIES, INC.

Vital Therapies, Inc. (the Corporation), a corporation organized and existing under and by virtue of the General Corporation Law of the State of Delaware (the DGCL), does hereby certify:

FIRST: The name of the corporation is Vital Therapies, Inc. (the Corporation).

SECOND: The date of filing of its original Certificate of Incorporation with the Secretary of State of the State of Delaware was January 13, 2004. The Amended and Restated Certificate of Incorporation was filed with the Secretary of State on April 23, 2014.

THIRD: The Board of Directors (the Board) of the Corporation, acting in accordance with the provisions of Sections 141 and 242 of the DGCL, adopted resolutions amending its Certificate of Incorporation as follows:

1. PART A of ARTICLE FOUR of the Amended and Restated Certificate of Incorporation, as presently in effect, of the Corporation is hereby amended and restated in its entirety as follows:

The total number of shares of all classes of capital stock which the Corporation shall have authority to issue is 150,000,000 shares, consisting of:

1. 20,000,000 shares of Preferred Stock, par value $0.0001 per share (the Preferred Stock); and

2. 130,000,000 shares of Common Stock, par value $0.0001 per share (the Common Stock).

Effective at 5:00 p.m. Eastern time, on the date of filing of this Certificate of Amendment to the Amended and Restated Certificate of Incorporation with the Secretary of State of the State of Delaware (the Effective Time), every [ ] shares of the Corporation s Common Stock, par value $0.0001 per share, issued and outstanding immediately prior to the Effective Time shall be combined into one share of common stock, par value $0.0001 per share, of the Corporation. Notwithstanding the immediately preceding sentence, no fractional shares shall be issued and, in lieu thereof, upon surrender after the Effective Time of a certificate or upon a change after the Effective Time in a book-entry which formerly represented shares of Common Stock that were issued and outstanding immediately prior to the Effective Time, any holder who would otherwise be entitled to a fractional share of Common Stock as a result of the combination, following the Effective Time (after taking into account all fractional shares of Common Stock otherwise issuable to such holder), shall be entitled to receive a cash payment equal to the fraction to which such holder would otherwise be entitled multiplied by the fair value of the Common Stock on the date of the Effective Time, as determined by the Board of Directors.

Each stock certificate or book-entry that, immediately prior to the Effective Time, represented shares of Common Stock that were issued and outstanding immediately prior to the Effective Time shall, from and after the Effective Time, automatically and without the necessity of presenting the same for exchange, represent that number of whole shares of Common Stock after the Effective Time into which the shares of Common Stock formerly represented by such certificate or book-entry shall have been combined (as well as the right to receive cash in lieu of fractional shares of Common Stock after the Effective Time), provided however, that each person of record holding a certificate that represented shares of Common Stock that were issued and outstanding immediately prior to the Effective Time shall receive, upon surrender of such certificate, a new certificate evidencing and representing the number of whole shares of Common Stock after the Effective Time into which the shares of Common Stock formerly represented by such certificate shall have been combined.

Table of Contents

The Preferred Stock and the Common Stock shall have the rights, preferences and limitations set forth below.

FOURTH: Thereafter, pursuant to a resolution by the Board, this Certificate of Amendment was submitted to the stockholders of the Corporation for their approval in accordance with the provisions of Section 211 and 242 of the DGCL. Accordingly, said proposed amendment has been adopted in accordance with Section 242 of the DGCL.

IN WITNESS WHEREOF, **VITAL THERAPIES, INC.** has caused this Certificate of Amendment to be signed by its duly authorized officer this _____ day of _____, 2019.

VITAL THERAPIES, INC.

By:
Name:
Title:

Table of Contents

Annex D

INVESTMENT AND SUBSCRIPTION AGREEMENT

among

IMMUNIC AG and

its Shareholders

Dated as of January 6, 2019

Table of Contents

Table of Contents

		Page
ARTICLE 1.	DESCRIPTION OF THE CONCURRENT FINANCING	D-2
1.1	Immunic Shareholders Meeting	D-2
1.2	Pre-Closing Capital Increase	D-3
1.3	Contributions to Immunic s Capital Reserves	D-4
1.4	Use of Proceeds.	D-5
1.5	Further Action.	D-5
ARTICLE 2.	REPRESENTATIONS AND WARRANTIES	D-5
2.1	Representations or Warranties of Immunic.	D-5
2.2	Representations and Warranties of Holders	D-5
ARTICLE 3.	ADDITIONAL AGREEMENTS OF THE PARTIES	D-6
3.1	New CSA.	D-6
3.2	Additional Agreements.	D-7
ARTICLE 4.	CONDITION TO THE OBLIGATIONS OF THE PARTIES	D-7
4.1	Condition Precedent of the Public Funds.	D-7
4.2	Condition Subsequent.	D-7
4.3	Legal Consequences.	D-7
ARTICLE 5.	MISCELLANEOUS PROVISIONS	D-8
5.1	Taxes.	D-8
5.2	Expenses.	D-8
5.3	Amendment.	D-8
5.4	Waiver.	D-9
5.5	Entire Agreement; Counterparts; Exchanges by Facsimile.	D-9
5.6	Applicable Law; Jurisdiction.	D-9
5.7	Assignability.	D-9
5.8	Own Right to Claim for Vital.	D-9
5.9	Notices.	D-10
5.10	Severability.	D-10
5.11	Other Remedies; Specific Performance.	D-10
5.12	Construction.	D-10

Table of Contents

Page

Exhibits:

EXHIBIT A FURTHER PARTIES TO THE AGREEMENT

EXHIBIT B CERTAIN DEFINITIONS DB-1

EXHIBIT C CURRENT SHAREHOLDING OF THE HOLDERS

EXHIBIT D DRAFT EXCHANGE AGREEMENT

EXHIBIT E INVESTORS

EXHIBIT 1.1(a)(ii) SUBSCRIBERS AND NUMBER OF NEW SHARES SUBSCRIBED BY THEM

EXHIBIT 1.1(a)(iv) REVISED ARTICLES OF ASSOCIATION

EXHIBIT 1.2(h) SHAREHOLDING AFTER PRE-CLOSING CAPITAL INCREASE

EXHIBIT 1.4-1 EFRE SUPPLEMENT

EXHIBIT 1.4-2 AFR (ACCEPTANCE OF FUNDING REQUIREMENT)

EXHIBIT 3.1 CONSOLIDATED SHAREHOLDERS AGREEMENT

EXHIBIT 5.9 CONTACT DETAILS

Table of Contents

INVESTMENT AND SUBSCRIPTION AGREEMENT

THIS INVESTMENT AND SUBSCRIPTION AGREEMENT (this ***Agreement***) is made and entered into as of January 6, 2019, by and among **IMMUNIC AG**, a stock corporation formed under the laws of Germany and registered with the commercial register (*Handelsregister*) of the local court of Munich (the ***Commercial Register***) under number HRB 223333 (***Immunic*** or ***Company***), and the parties listed on Exhibit A hereto as direct and certain indirect shareholders of the Company. Certain capitalized terms used in this Agreement are defined in Exhibit B.

RECITALS

A. The Company s share capital currently amounts to EUR 362,997.00, divided into 362,997 shares in registered form as non-par value shares with a portion of the Company s share capital (*anteiliger Betrag am Grundkapital*) of EUR 1.00 each (the ***Immunic Shares***). The Immunic Shares are currently held by the persons listed hereafter (the ***Holders***) as stated in the table set out in Exhibit C:

B. The Company, the Holders and Vital Therapies, Inc., a Delaware corporation (***Vital***) intend to effect a transaction whereby the Holders contribute, transfer, assign and deliver all of the Immunic Shares owned by the Holders, and all of their rights with respect to such Immunic Shares, to Vital in exchange for shares of Vital Common Stock, with the result of Immunic becoming a wholly-owned subsidiary of Vital (the ***Transaction***). To conclude the Transaction, the parties thereto will enter into an exchange agreement (the ***Exchange Agreement***), a current draft of which is attached hereto as Exhibit D.

C. As a condition to the execution and delivery of the Exchange Agreement by Vital, the Company requires further financing of at least $30 million (the ***Concurrent Financing***).

D. Each of the Holders listed on Exhibit E hereto (the ***Investors***) has, severally and not jointly, committed to take part in the Concurrent Financing by way of subscription for newly issued common shares (*Stammaktien*) in the Company subject to the closing of the Transaction (the **Closing**) and the further terms and conditions set forth herein.

E. The Company and each Investor are executing and delivering this Agreement in reliance upon the exemption from securities registration afforded by Section 4(a)(2) of the Securities Act of 1933, as amended (the ***Securities Act***), and Rule 506 of Regulation D (***Regulation D***) as promulgated by the United States Securities and Exchange Commission (the ***Commission***) under the Securities Act.

F. In 2018, the Company and each of Manfred Groeppel, Andreas Muehler. Daniel Vitt and Hella Kohlhof (***Founders***) have entered into certain exit bonus agreements (the ***Exit Bonus Agreements***). The Exit Bonus Agreements have been assigned and transferred by each of the Founders to their respective investment vehicle (the ***Founder Vehicle(s)***; together with Investors the ***Subscribers***) as follows:

Founder	***Founder Vehicle***
Manfred Groeppel	GI
Andreas Muehler	Xanomed
Daniel Vitt	Listrax
Hella Kohlhof	Constanze

The Parties now intend to issue new Common Shares to the Founder Vehicles in order to settle the Founder Vehicles claims under the Exit Bonus Agreements.

Table of Contents

G. In light of the Transaction, the Parties hereto further intend to enter into a consolidated shareholders agreement (the ***CSA 2018***) which sets forth the principles of the legal relationship between all shareholders of Immunic. The CSA 2018 shall also replace in full any and all prior shareholders agreements among all or individual shareholders relating to their participation in Immunic, including (without being limited to) the shareholders agreement dated August 10, 2016 as amended by the first amendment to the investment and shareholders agreements dated December 21, 2016, the second accession and amendment agreement dated August 25, 2017 as well as the third accession and amendment agreement dated December 14, 2018 (together **Existing Agreements**).

H. Following the Concurrent Financing and immediately prior to closing of the Transaction, the Holders will own all of the Immunic Shares (consisting of the Immunic Common Shares including the Immunic Pre-Closing Financing Shares) outstanding in accordance with the Articles of Association (*Satzung*) of Immunic (the ***Immunic Articles***).

NOW, THEREFORE, in consideration of the mutual covenants contained in this Agreement, and for other good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, the Company and the Holders hereby agree as follows

AGREEMENT

The parties to this Agreement, intending to be legally bound, agree as follows:

ARTICLE 1. DESCRIPTION OF THE CONCURRENT FINANCING

1.1 Immunic Shareholders Meeting

(a) Upon the terms and subject to the conditions set forth in this Agreement, the Holders undertake to resolve unanimously and with all votes in a shareholders meeting to be held in the form of a plenary meeting *(Vollversammlung)* with all Holders being present or duly represented (***Shareholders Meeting***) as follows:

(i) increase of the Company s registered share capital from EUR 362,997.00 by EUR 156,920.00 to EUR 519,917.00 in return for cash contributions by the issuance of 156,920 new shares in the Company in the form of common shares (*Stammaktien*) (the ***Pre-Closing Financing Shares***), each in registered form, to be issued as non-par value shares with a portion of the Company s share capital (*anteiliger Betrag am Grundkapital*) of EUR 1.00 each (the ***Pre-Closing Capital Increase***).

(ii) invite only the Subscribers to subscribe for the Pre-Closing Financing Shares as set out in the column to the right of the respective Subscriber s name in the table set forth in Exhibit 1.1(a)(ii) and waive any statutory or contractual subscription rights conflicting with such admission.

(iii) convert all of Immunic s outstanding preferred shares series A-1 and series A-2 (together ***Preferred Shares***) into common shares of Immunic (***Common Shares***); and

(iv) revise the articles of association (*Satzung*) of the Company as set forth in Exhibit 1.1(a)(iv) (***Revised Articles of Association***).

(b) All Pre-Closing Financing Shares shall have the right to participate in profits as from the beginning of the year of their issuance.

(c) The Shareholders Meeting shall be held immediately following the conclusion of the Vital Stockholders Meeting (as defined in the Exchange Agreement) so long as all of the Vital Stockholder Matters (as defined in the Exchange Agreement) required to implement the Transaction are approved by the Vital Stockholders (as defined in the Exchange Agreement) prior to the conclusion of the Vital Stockholders Meeting. At the Shareholders Meeting, the Holders are obliged to vote in favor of all of the items contemplated by Section 1.1(a) above as well as any other items that may be required or advisable to implement the Concurrent Financing.

Table of Contents

1.2 Pre-Closing Capital Increase

(a) Each of the Holders undertakes individually for himself *vis-à-vis* each other Holder, to do or cause to be done everything necessary to implement the resolutions set forth in Section 1.1 above. Thus, the Holders undertake in particular to co-operate in the Pre-Closing Capital Increase as described by exercising their voting rights in the Shareholders Meeting accordingly and to waive their right to raise objections to and to challenge the resolutions of the Shareholders Meeting.

(b) Each of the Subscribers undertakes, subject to sec. 4.1, individually for itself *vis-à -vis* each other and each of the Holders, to (A) subscribe and to take over the Pre-Closing Financing Shares as stated in Sec. 1.1(a)(ii) above immediately after the end of the Shareholders Meeting, and (B) pay to the Company in full a cash contribution equal to the aggregate amount of the portion of the Company s share capital in respect of the Pre-Closing Financing Shares it has subscribed for (***Capital Contribution***). The Capital Contribution shall be paid within two (2) bank working day in Frankfurt am Main, Germany after the respective Subscriber has subscribed for its Pre-Closing Financing Shares to the following special account

(c) for the increase of the share capital of the Company (***Special Account***) by irrevocable wire transfer of immediately available funds valued as of the relevant due date and free of any bank and other charges:

Account Holder	Immunic AG
Bank	Landesbank Baden-Württemberg
BIC	
IBAN	
Reference	Pre-Closing Capital Increase [*Name of Subscriber*]

(d) Payments shall be made exclusively to the Special Account, which has been opened solely for this purpose and must not have a debit balance immediately prior to the Capital Contribution being effected, so that the Company s Management Board can freely dispose of the amounts paid (cf. §§ 188, 36, 36a, 37 German Stock Corporation Act (*AktG*)). The Capital Contribution paid in respect to the Pre-Closing Financing Shares shall not be used for payments until the Pre-Closing Capital Increase has been properly registered with the commercial register.

(e) After the subscription and taking over of the Pre-Closing Financing Shares under Sec. 1.1 above and the receipt of the aggregate amount of the portion of the Company s share capital of such Pre-Closing Financing Shares, the Company shall without undue delay (*unverzüglich*) apply for registration of the increase of the share capital under Sec. 1.1 above and its consummation and the Revised Articles of Association with the commercial register of the Company and shall take all actions and make all declarations necessary or appropriate for the increase of the share capital under Sec. 1.1 above and the Revised Articles of Association to become effective.

(f) The Company is instructed to notify the notary notarizing the Pre-Closing Capital Increase at least in text form without delay of the payments received by sending an account statement of the Special Account.

(g) The Holders undertake *vis-à-vis* each other, as from the conclusion of this Agreement until the consummation of the increase of the share capital under Sec. 1 above and the Revised Articles of Association has been registered with

the commercial register of the Company, to treat each other as if the Subscribers had already acquired the Pre-Closing Financing Shares to be issued under Sec. 1 above upon subscription, respectively, and the Revised Articles of Association had already come into force upon the end of the Shareholders Meeting, to the extent legally permissible. Thus, each of the Holders undertakes individually for himself *vis-à-vis* each of the Holders, as from the subscription of the Pre-Closing Financing Shares under Sec. 1 above, respectively, to put each of the Subscribers internally in such position as they each would be in, if they had acquired the financial rights (*Vermögensrechte*) and, to the extent legally permissible, the administrative rights (*Verwaltungsrechte*)

Table of Contents

under this Agreement (including the New CSA) as well as the Revised Articles of Association upon subscription, respectively. Should the commercial register make valid objections to the increases of the share capital under Sec. 1 or the Revised Articles of Association, the Holders undertake, as amongst each other, to remove such objections without undue delay by way of adopting the necessary resolutions in a shareholders meeting of the Company to be held as soon as possible so that the purpose and intention of the provisions objected to can be achieved to the maximum permissible extent.

(h) The subscriptions shall only become non-binding (i) if the condition precedent mentioned in sec. 4.1 has not been fulfilled and (ii) if the consummation (*Durchführung*) of the respective capital increase has not been registered in the commercial register on or before six (6) months after subscription; such deadline may be extended through mutual agreement among the Company and the Subscribers which shall be made at least in text form pursuant to section 126 lit. b. German Civil Code *(BGB).* Notwithstanding any provision herein to the contrary, if the Transaction has occurred and the subscriptions subsequently become non-binding, the Transaction will be unaffected thereby.

(i) After the conversion to Common Shares and the Pre-Closing Capital Increase have become effective, the share capital of the Company will be held by the Holders as set out in Exhibit 1.2(h).

1.3 Contributions to Immunic s Capital Reserves

(a) The Investors undertake individually for themselves *vis-à-vis* each of the other Holders, but not *vis-à-vis* the Company, to render, in addition to the portion of the Company s share capital (*anteiliger Betrag des Grundkapitals*) of EUR 1.00 each for each Pre-Closing Financing Share subscribed by them under Sec. 1.1 above, further payments into the capital reserves of the Company pursuant to Sec. 272 para. 2 no. 4 German Commercial Code (*HGB*) as follows:

Investor	**Payments to the Company s Capital Reserves (in EUR)**
LSP	6,219,572.00
EGS	1,243,914.00
BKI	248,783.00
WFB	995,132.00
HTGF	1,492,697.00
IBG	995,132.00
Fund+	7,662,513.00
GLB V	7,662,513.00
Total	**26,520,256.00**

The payments under this lit. (a) shall be made within two (2) bank working day in Frankfurt am Main, Germany after the Pre-Closing Capital Increase has been filed for registration with the commercial register, to the Special Account by irrevocable wire transfer of immediately available funds valued as of the relevant due date and free of any bank and other charges (reference: Pre-Closing Capital Increase [*Name of Investor*]). The respective payments into the capital reserves by WFB, BKI and IBG shall in each case only become due if the Company has confirmed to WFB, BKI and IBG in text form that either of LSP, EGS, Fund+ or GLB V has paid its corresponding capital contribution to the Special Account.

(b) Each of the Founders and Founder Vehicles hereby assigns and transfers for the Pre-Closing Financing Shares subscribed by them under Sec. 1.1 above their respective claims under or in connection with the respective Exit Bonus Agreements as attached hereto as Exhibit 1.3(b) to the capital reserves of the Company pursuant to Sec. 272 para. 2 no. 4 German Commercial Code (*HGB*) subject to the condition precedent (*aufschiebende Bedingung*) of closing of the Exchange Agreement. The Company hereby accepts such assignment and transfer. The Exit Bonus Agreements are thereby fully settled and shall terminate on the date the assignments and transfers become effective.

Table of Contents

(c) Each Subscriber may at any time render any of its contributions pursuant to this Sec. 1.3 at its sole discretion before it becomes due.

1.4 Use of Proceeds.

Immunic shall comply with the obligations required by the European Fund for Regional Development (*Europäischer Fonds für Regionale Entwicklung*; **EFRE**) set out in the supplement agreement in the form as attached hereto as Exhibit 1.4-1. The funds provided by IBG shall be exclusively used to fund the project Development of New RORyt Inhibitors for the Therapy of Auto-Immune Diseases in Saxony-Anhalt and Preclinical examinations on the mechanisms of action of the assets IMU-838 and IMU 856 (**Funded Project**) as set out in the data information sheet (**DIS**) taking IBG s investment principles, which are attached hereto together with the form Acceptance of Funding Requirement of the Company as Exhibit 1.4-2 (**AFR**), into consideration. In case the Funded Project cannot be realized at all or in an economically reasonable way, IBG and Immunic shall use their reasonable best efforts to define another project to be realized in Saxony-Anhalt. Such change of project will be subject to the prior consent from IBG s respective bodies. Solely for the purpose of carrying out the Funded Project (as amended, as the case may be), Immunic shall maintain until completion of the Funded Project (i.e. for the avoidance of doubt until documented evidence of the application of IBG s funds (*vollständiger Mittelverwendungsnachweis*) has been issued) Immunic GmbH as wholly owned subsidiary domiciled in Halle (Saale). Furthermore, Immunic represents and warrants that the requirements for the granting of funds in accordance with the investment principles for open *pari passu* investments and conversion measures in line with market standards (no subsidy; *keine Beihilfe*) have been fulfilled. Exhibit 1.4-1 and Exhibit 1.4-2 are an integral part of this Agreement and therefore, are applicable, mandatory and binding upon the Company.

1.5 Further Action.

If, at any time, any further action is determined by either of the Parties to be necessary or desirable to carry out the purposes of this Agreement, then all of the Parties shall use their commercially reasonable efforts to take such action.

ARTICLE 2. REPRESENTATIONS AND WARRANTIES

2.1 Representations or Warranties of Immunic.

Immunic represents and warrants to IBG that on the date of signing of this Agreement (i) the information provided in Exhibit 1.4.-2 are true and correct and (ii) the requirements for the granting of funds in accordance with the investment principles for pari passu investments and conversion measures in line with market standards (no subsidy; *keine Beihilfen*) have been fulfilled. Each of the Parties hereby acknowledges and agrees that Immunic makes no further express or implied representation or warranty with respect to Immunic or with respect to any other information provided to any of the Subscribers in connection with the Pre-Closing Capital Increase and this Agreement.

2.2 Representations and Warranties of Holders

(a) Organization and Authority of Holders.

(i) If a Holder is not an individual, such Holder is duly organized, validly existing and in good standing under the laws of the jurisdiction of its formation.

(ii) Each Holder has the requisite power and authority (and, in the case of each Holder who is a natural person, capacity) to execute, deliver and perform such Holder s obligations under this Agreement. This Agreement has been

duly authorized, executed and delivered by such Holder and represents (assuming the valid authorization, execution and delivery of this Agreement by each other party hereto) the legal, valid and binding obligation of such Holder, enforceable against such Holder in accordance with its terms, subject to applicable bankruptcy, insolvency, reorganization, moratorium and similar laws of general application relating to or affecting creditors rights and subject to general equity principles.

Table of Contents

(b) **Holder Conflicts**.

Neither the execution and delivery by such Holder of this Agreement or the consummation by such Holder of any of the transactions contemplated hereby, nor compliance by such Holder with this Agreement, or fulfillment of, the terms, conditions and provisions hereof, will:

(i) result in a violation or breach of the terms, conditions or provisions of, conflict with or constitute a default under any provision of, an event of default or an event that, after notice or lapse of time or both, would result in the creation of rights of acceleration, termination or cancellation or a loss of rights under (i) the organizational documents of such Holder (as and if applicable), (ii) any material Contract to which such Holder is a party or any of its properties is subject or by which such Holder is bound, (iii) any order, judgment, injunction, award, decree, ruling or writ of any Governmental Body to which such Holder is a party or by which it is bound or (iv) any Legal Requirement affecting such Holder; or

(ii) require the approval, consent, authorization or act of, the notice to or the making by such Holder of any declaration, filing or registration with, any Governmental Body.

(c) **No Holder Violation or Litigation**.

(i) there are no Legal Proceedings pending or, to the knowledge of such Holder, threatened against such Holder which are reasonably expected to impair the ability of such Holder to perform its obligations under this Agreement to which it is a party or prevent the consummation of any of the transactions contemplated hereby or thereby;

(ii) there are no Legal Proceedings pending or, to the knowledge of such Holder, threatened that question the legality of the transactions contemplated by this Agreement; and

(iii) such Holder is not subject to any outstanding order, judgment, injunction, award, decree, ruling or writ of any Governmental Body that prohibits or otherwise restricts the ability of such Holder to consummate fully the transactions contemplated by this Agreement.

(d) **Subscription Entirely for Own Account**.

Save for the Transaction and in particular as set forth in the Exchange Agreement, this Agreement is made with such Holder in reliance upon such Holder s representation to Immunic, which by such Holder s execution of this Agreement, such Holder hereby confirms, that the shares of Common Shares to be subscribed by such Holder hereunder will be acquired for investment for such Holder s own account, not as a nominee or agent, and not with a view to the resale or distribution of any part thereof, and that such Holder has no present intention of selling, granting any participation in, or otherwise distributing the same. By executing this Agreement, such Holder further represents that such Holder does not presently have any contract, undertaking, agreement or arrangement with any Person to sell, transfer or grant participations to such Person or to any third Person, with respect to any of the shares of Common Shares to be subscribed by such Holder hereunder, other than set forth and provided for in the Transaction and the Exchange Agreement. Such Holder has not been formed for the specific purpose of acquiring the shares of Common Shares to be acquired by such Holder hereunder.

(e) **No Other Representations or Warranties**.

Immunic hereby acknowledges and agrees that, except for the representations and warranties contained in this Agreement, neither Immunic, any Holder, nor any other person on behalf of Immunic makes any express or implied

representation or warranty with respect to Immunic or with respect to any other information provided in connection with the Contemplated Transactions.

ARTICLE 3. ADDITIONAL AGREEMENTS OF THE PARTIES

3.1 New CSA.

The Parties shall conclude the consolidated shareholders agreement as set forth in **Exhibit 3.1**.

Table of Contents

3.2 Additional Agreements.

The Parties shall (a) use commercially reasonable efforts to cause to be taken all actions necessary to consummate the Contemplated Transactions and (b) reasonably cooperate with the other Parties and provide the other Parties with such assistance as may be reasonably requested for the purpose of facilitating the performance by each Party of its respective obligations under this Agreement. Without limiting the generality of the foregoing, each Party to this Agreement: (i) shall make all filings and other submissions (if any) and give all notices (if any) required to be made and given by such Party in connection with the Contemplated Transactions; (ii) shall use commercially reasonable efforts to lift any injunction prohibiting, or any other legal bar to, the Contemplated Transactions; and (iii) shall use commercially reasonable efforts to satisfy the conditions precedent to the consummation of this Agreement. The Holders shall (a) use commercially reasonable efforts to cause to be taken all actions necessary to consummate the Contemplated Transactions and (b) reasonably cooperate with the Parties and provide the Parties with such assistance as may be reasonably requested for the purpose of facilitating the performance by each Party of its respective obligations under this Agreement and to enable the Parties to continue to meet its obligations under this Agreement following the Closing. Without limiting the generality of the foregoing, each Party and Holder: (i) shall make all filings and other submissions (if any) and give all notices (if any) required to be made and given by such Party or Holder in connection with the Contemplated Transactions; (ii) shall use commercially reasonable efforts to lift any injunction prohibiting, or any other legal bar to, the Contemplated Transactions; and (iii) shall use commercially reasonable efforts to satisfy the conditions precedent to the consummation of this Agreement.

ARTICLE 4. CONDITION TO THE OBLIGATIONS OF THE PARTIES

4.1 Condition Precedent of the Public Funds.

The obligations of each of the Public Funds under this Agreement to (i) subscribe for newly issued Common Shares and (ii) make further payments to Immunic s capital reserves is subject to the condition precedent (*aufschiebende Bedingung*) that their respective investment committee has approved the respective commitment. Each of the Public Funds undertakes to notify the Company at least in electronic form by February 14, 2019 whether the condition precedent with respect to their investment committee has occurred (***Notification I***).

4.2 Condition Subsequent.

This Agreement is subject to the condition subsequent (*auflösende Bedingung*) that the Management Board of Immunic has notified Dr. Jörg Neermann (jneermann@lspvc.com) as representative of the other Parties in electronic form (***Notification II***) that the closing of the Exchange Agreement has not occurred by June 30, 2019 (the ***Longstop Date***).

4.3 Legal Consequences.

(a) In case either (i) the Notification I has not been issued in time or (ii) the committee has rejected the respective Public Fund s commitment, the respective condition precedent shall be deemed not to be satisfied. In either such case the other Investors will use their reasonable efforts to take over such Public Fund s commitment *inter se*.

(b) In case the Notification II has been received with an effective date after the Longstop Date, this Agreement shall be of no further force or effect and all rights and obligations of the Parties under this Agreement shall cease to exist and any and all actions hereunder shall be unwound, including (without being limited to) any and all payments or contributions rendered by the Subscribers shall be returned by Immunic to the respective Subscribers, insofar as legally permissible; provided, however, that (i) this Section 4.3, Section 5.6, and Section 5.11 shall survive and shall

remain in full force and effect. In this case, the Parties shall use commercially reasonable efforts to cause to be taken all actions necessary to consummate the unwinding. Without limiting the generality of the foregoing, each Party to this Agreement shall make all filings and other submissions (if any) and give all notices (if any) required to be made and given by such Party in connection with such unwinding.

Table of Contents

ARTICLE 5. MISCELLANEOUS PROVISIONS

5.1 Taxes.

(a) The Company has duly, timely and completely filed in accordance with the applicable laws (taking into consideration extensions of time allowed by the competent Tax authorities) all returns, reports, forms, schedules, notices and any other document or information requested to be filed by the Company for Taxes (***Tax Return***) and procured that such Tax Returns are correct and complete in all respects; whereas ***Tax*** or ***Taxes*** shall mean any public imposition, including but not limited to any federal, state or local taxes (*Steuern*), duties (*Abgaben*), public contributions (*Beiträge, Gebühren*), customs (*Zölle*), excise (*Verbrauchssteuern*), any other imposition within the meaning of section 3 para. 1 to 3 of the German Tax Code (*Abgabenordnung*), together with any interest, penalty or other kind of addition thereon and incidental payments related thereto including but not limited to any ancillary charges (*steuerliche Nebenleistungen*) within the meaning of section 3 para. 4 of the German Tax Code (*Abgabenordnung*), social security contributions (*Sozialversicherungsbeiträge*), investment grants and subsidies (*Investitionszuschüsse und -zulagen*) (in each case, including equivalent impositions or duties under the laws of any other jurisdiction and irrespective of whether (i) owed as a primary liability (*Steuerschuld*) or as a secondary liability (*Haftungsschuld*) or (ii) assessed, to be withheld or payable by law;

(b) The Company has in all respects withheld and paid all Taxes required to have been withheld and paid in connection with any amounts due, owed or payable; or has adequately provided for such Taxes in Immunic s audited consolidated balance sheets at December 31, 2017 (the ***Annual Financial Statement***);

(c) All tax liabilities whether actual, deferred, contingent or disputed, of the Company (i) measured by reference to income, profits or gains earned, accrued or received for the period covered by the Annual Financial Statement or (ii) arising in respect of an event, transaction or other circumstance occurring or arising or deemed to occur or arise for the period covered by Annual Financial Statement (whether wholly or partly), are fully provided for or (as appropriate) disclosed in Annual Financial Statement;

(d) The Company is in compliance with all terms, conditions and formalities necessary for the continuance of any Tax exemption, Tax credit, Tax incentive, Tax refund, Tax loss utilization or other Tax reduction agreement or order available under any applicable law;

(e) The Company is not involved in any dispute in relation to Taxes with any Tax authority and there are no audits, examinations, investigations, proposed or asserted claims or other actions pending against or with respect to the assets of the Company;

(f) The Company is in possession of all Tax records and information to be maintained by it, so as to be able to file its Tax Returns and to reasonably defend positions taken in Tax Returns filed as of the date hereof;

(g) The Company has its seat in Germany;

(h) No Taxes are triggered on the level of the Company by any financing measures, including but not limited to convertible loans, equity contribution, and/or debt to equity swaps.

5.2 Expenses.

All fees and expenses incurred in connection with this Agreement and the Contemplated Transactions shall be paid by the Party or a Holder incurring such expenses, whether or not the Transaction is consummated.

5.3 Amendment.

This Agreement may be amended with the approval of the respective Boards of Directors of Immunic and Vital and the approval by a simple majority of the Holders at any time (whether before or after obtaining the Required Vital Stockholder Vote); provided, however, that (a) no representation, warranty or covenant in this Agreement with respect to a Holder may be amended unless such amendment applies to all Holders in the same fashion and the Parties obtain the approval of such amendment from the Holders who own a majority of the then

Table of Contents

outstanding Immunic Shares, and (b) after obtaining the Required Vital Stockholder Vote, no amendment shall be made, which by applicable Legal Requirement requires further approval of the Vital Stockholders, without the further approval of the Vital Stockholders. Subject to the foregoing, this Agreement may not be amended.

5.4 Waiver.

(a) No failure on the part of any Party or Holder to exercise any power, right, privilege or remedy under this Agreement, and no delay on the part of any Party or Holder in exercising any power, right, privilege or remedy under this Agreement, shall operate as a waiver of such power, right, privilege or remedy; and no single or partial exercise of any such power, right, privilege or remedy shall preclude any other or further exercise thereof or of any other power, right, privilege or remedy.

(b) No Party or Holder shall be deemed to have waived any claim arising out of this Agreement, or any power, right, privilege or remedy under this Agreement, unless the waiver of such claim, power, right, privilege or remedy is expressly set forth in a written instrument duly executed and delivered on behalf of such Party or Holder; and any such waiver shall not be applicable or have any effect except in the specific instance in which it is given.

5.5 Entire Agreement; Counterparts; Exchanges by Facsimile.

This Agreement and the other agreements referred to in this Agreement constitute the entire agreement and supersede all prior agreements and understandings, both written and oral, among or between any of the Parties and the Holders with respect to the subject matter hereof and thereof but, for the avoidance of doubt, except for the supplement agreement in the form as attached hereto as Exhibit 1.4-1. This Agreement may be executed in several counterparts, each of which shall be deemed an original and all of which shall constitute one and the same instrument. The exchange of a fully executed Agreement (in counterparts or otherwise) by all Parties and Holders by facsimile or electronic transmission in .PDF format shall be sufficient to bind the Parties and the Holders to the terms and conditions of this Agreement.

5.6 Applicable Law; Jurisdiction.

This Agreement shall be governed by, and construed in accordance with, the laws of the Federal Republic of Germany, regardless of the laws that might otherwise govern under applicable principles of conflicts of laws. In any action or suit between any of the Parties and/or the Holders arising out of or relating to this Agreement or any of the Contemplated Transactions each of the Parties and the Holders irrevocably and unconditionally consents and submits to the exclusive jurisdiction and venue of the courts located in Munich (*Landgericht München I*).

5.7 Assignability.

This Agreement shall be binding upon, and shall be enforceable by and inure solely to the benefit of, the Parties hereto, the Holders and their respective successors and assigns; provided, however, that neither this Agreement nor any of a Party s or Holder s rights or obligations hereunder may be assigned or delegated by such Party or Holder (as applicable) without the prior written consent of the Parties, and any attempted assignment or delegation of this Agreement or any of such rights or obligations by such Party or Holder without the Parties prior written consents shall be void and of no effect.

5.8 Own Right to Claim for Vital.

Vital shall have an own right to claim (*eigenes Forderungsrecht*) from each of the Subscribers to perform its duties and meet its obligations, in particular to make the payments to Immunic as set forth herein, and shall have the right to enforce specific performance directly in accordance with Section 328 German Civil Code (*Vertrag zugunsten Dritter im Sinne von § 328 BGB*) to the sole benefit of Immunic to the extent it may deem such enforcement necessary or advisable.

Table of Contents

5.9 Notices.

Any notice or other communication required or permitted to be delivered to any Party and Holder under this Agreement shall be in writing and shall be deemed properly delivered, given and received when delivered by hand, by registered mail, by courier or express delivery service, electronic mail, or by facsimile to the address, electronic mail address, or facsimile telephone number set forth beneath the name of such party as listed in Exhibit 5.9 (or to such other address, electronic mail address, or facsimile telephone number as such party has specified in a written notice given to the other parties hereto)

5.10 Severability.

Any term or provision of this Agreement that is invalid or unenforceable in any situation in any jurisdiction shall not affect the validity or enforceability of the remaining terms and provisions of this Agreement or the validity or enforceability of the offending term or provision in any other situation or in any other jurisdiction. If a final judgment of a court of competent jurisdiction declares that any term or provision of this Agreement is invalid or unenforceable, the Parties and the Holders hereto agree that the court making such determination will have the power to limit such term or provision, to delete specific words or phrases or to replace such term or provision with a term or provision that is valid and enforceable and that comes closest to expressing the intention of the invalid or unenforceable term or provision, and this Agreement shall be valid and enforceable as so modified. In the event such court does not exercise the power granted to it in the prior sentence, the Parties and the Holders hereto agree to replace such invalid or unenforceable term or provision with a valid and enforceable term or provision that will achieve, to the extent possible, the economic, business and other purposes of such invalid or unenforceable term or provision.

5.11 Other Remedies; Specific Performance.

Except as otherwise provided herein, any and all remedies herein expressly conferred upon a Party or Holder will be deemed cumulative with and not exclusive of any other remedy conferred hereby, or by law or equity upon such Party or Holder, and the exercise by a Party or Holder of any one remedy will not preclude the exercise of any other remedy. The Parties and the Holders hereto agree that irreparable damage would occur in the event that any of the provisions of this Agreement were not performed in accordance with their specific terms or were otherwise breached. It is accordingly agreed that the Parties and the Holders shall be entitled to an injunction or injunctions to prevent breaches of this Agreement and to enforce specifically the terms and provisions hereof in any court of the United States or any state having jurisdiction, this being in addition to any other remedy to which they are entitled at law or in equity, and each of the Parties and the Holders hereto waives any bond, surety or other security that might be required of any other Party or Holder with respect thereto.

5.12 Construction.

(a) For purposes of this Agreement, whenever the context requires the singular number shall include the plural, and vice versa; the masculine gender shall include the feminine and neuter genders; the feminine gender shall include the masculine and neuter genders; and the neuter gender shall include masculine and feminine genders.

(b) The Parties and the Holders hereto agree that any rule of construction to the effect that ambiguities are to be resolved against the drafting Party shall not be applied in the construction or interpretation of this Agreement.

(c) As used in this Agreement, the words include and including and variations thereof, shall not be deemed to be terms of limitation, but rather shall be deemed to be followed by the words without limitation.

(d) Except as otherwise indicated, all references in this Agreement to Sections, Articles, Exhibits and Schedules a intended to refer to Sections or Articles of this Agreement and Exhibits and Schedules to this Agreement, respectively.

Table of Contents

(e) The bold-faced headings contained in this Agreement are for convenience of reference only, shall not be deemed to be a part of this Agreement and shall not be referred to in connection with the construction or interpretation of this Agreement.

[*Remainder of page intentionally left blank*]

Table of Contents

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed as of the date first above written.

IMMUNIC AG

By: */s/Michael Singer*
Name: Michael Singer
Title: by virtue of power of attorney (for the CEO)

IMMUNIC AG

By: */s/Michael Singer*
Name: Michael Singer
Title: by virtue of power of attorney (for the Chairman of the Supervisory Board)

Dr. Manfred Gröppel

By: */s/Thomas Strassner*
Name: Thomas Strassner
Title: by virtue of power of attorney

Dr. med Rolf Andreas Mühler

By: */s/Thomas Strassner*
Name: Thomas Strassner
Title: by virtue of power of attorney

Dr. Daniel Vitt

By: */s/Thomas Strassner*
Name: Thomas Strassner
Title: by virtue of power of attorney

Dr. Hella Kohlhof, née Herberger

By: */s/Thomas Strassner*
Name: Thomas Strassner
Title: by virtue of power of attorney

Listrax UG

By: */s/Thomas Strassner*
Name: Thomas Strassner
Title: by virtue of power of attorney

[Signature Page to Subscription Agreement]

Table of Contents

Gröppel Investments UG

By: */s/Thomas Strassner*
Name: Thomas Strassner
Title: by virtue of power of attorney

Constanze Investments UG

By: */s/Thomas Strassner*
Name: Thomas Strassner
Title: by virtue of power of attorney

Xanomed UG

By: */s/Thomas Strassner*
Name: Thomas Strassner
Title: by virtue of power of attorney

LSP V Coöperatieve U.A.

By: */s/Thomas Strassner*
Name: Thomas Strassner
Title: by virtue of power of attorney

Dr. Gerhard Ries

By: */s/Thomas Strassner*
Name: Thomas Strassner
Title: by virtue of power of attorney

Gabriel Eckenstein

By: */s/Thomas Strassner*
Name: Thomas Strassner
Title: by virtue of power of attorney

Eckenstein-Geigy-Stiftung

By: */s/Thomas Strassner*
Name: Thomas Strassner
Title: by virtue of power of attorney

Bayern Kapital Innovationsfonds GmbH & Co. KG

By: */s/Thomas Strassner*
Name: Thomas Strassner
Title: by virtue of power of attorney

Table of Contents

Wachstumsfonds Bayern GmbH & Co. KG

By: */s/Thomas Strassner*
Name: Thomas Strassner
Title: by virtue of power of attorney

High-Tech Gründerfonds II GmbH & Co. KG

By: */s/Thomas Strassner*
Name: Thomas Strassner
Title: by virtue of power of attorney

IBG Risikokapitalfonds II GmbH & Co. KG

By: */s/Thomas Strassner*
Name: Thomas Strassner
Title: by virtue of power of attorney

Fund+ N.V.

By: */s/Thomas Strassner*
Name: Thomas Strassner
Title: by virtue of power of attorney

Global Life Bioventure V S.à r.l.

By: */s/Thomas Strassner*
Name: Thomas Strassner
Title: by virtue of power of attorney

Table of Contents

EXHIBIT B

CERTAIN DEFINITIONS

For purposes of the Agreement (including this Exhibit B):

Agreement has the meaning set forth in the Preamble.

Closing has the meaning set forth in the Recitals.

Code means the Internal Revenue Code of 1986, as amended.

Consent means any approval, consent, ratification, permission, waiver or authorization (including any Governmental Authorization).

Contemplated Transactions means the Transaction, the Reverse Split, the Immunic Pre-Closing Financing, and the other transactions and actions contemplated by the Agreement.

Contract shall, with respect to any Person, mean any written agreement, contract, subcontract, lease (whether real or personal property), mortgage, understanding, arrangement, instrument, note, option, warranty, purchase order, license, sublicense, insurance policy, benefit plan or legally binding commitment or undertaking of any nature to which such Person is a party or by which such Person or any of its assets are bound or affected under applicable law.

Effect means any effect, change, event, circumstance, or development.

Entity means any corporation (including any non-profit corporation), partnership (including any general partnership, limited partnership or limited liability partnership), joint venture, estate, trust, company (including any company limited by shares, limited liability company or joint stock company), firm, society or other enterprise, association, organization or entity, and each of its successors.

Governmental Authorization means any: (a) permit, license, certificate, franchise, permission, variance, exceptions, orders, clearance, registration, qualification or authorization issued, granted, given or otherwise made available by or under the authority of any Governmental Body or pursuant to any Legal Requirement; or (b) right under any Contract with any Governmental Body.

Governmental Body means any: (a) nation, state, commonwealth, province, territory, county, municipality, district or other jurisdiction of any nature; (b) federal, state, local, municipal, foreign or other government; (c) governmental or quasi-governmental body of any nature (including any governmental division, department, agency, commission, instrumentality, official, ministry, fund, foundation, center, organization, unit, body or Entity and any court or other tribunal, and for the avoidance of doubt, any Tax authority); or (d) self-regulatory organization (including Nasdaq and the Financial Industry Regulatory Authority).

Holder has the meaning set forth in the Preamble.

Immunic has the meaning set forth in the Preamble.

Immunic Affiliate means any Person that is (or at any relevant time was) under common control with Immunic within the meaning of Sections 414(b), (c), (m) and (o) of the Code, and the regulations issued thereunder.

Immunic Board of Directors has the meaning set forth in the Recitals.

Table of Contents

Immunic Shares means the Common Shares and the Preferred Shares, including the Immunic Pre-Closing Financing Shares.

Immunic Common Shares has the meaning set forth in the Recitals.

Immunic Pre-Closing Financing means an acquisition of Immunic Common Shares to be consummated prior to the Closing by the Holders pursuant to the Subscription Agreement with gross proceeds of at least Thirty Million Dollars ($30,000,000).

Legal Requirement means any federal, state, foreign, material local or municipal or other law, statute, constitution, principle of common law, resolution, ordinance, code, edict, decree, rule, regulation, ruling or requirement issued, enacted, adopted, promulgated, implemented or otherwise put into effect by or under the authority of any Governmental Body.

Nasdaq means The Nasdaq Stock Market.

Person means any individual, Entity or Governmental Body.

Public Funds means BKI, WFB, HTGF and IBG.

Securities Act means the Securities Act of 1933, as amended.

Subscription Agreement has the meaning set forth in the Recitals.

Tax has the meaning set forth in Section 5.1 (a).

Tax Return has the meaning set forth in Section 5.1 (a).

Transaction has the meaning set forth in the Recitals.

Table of Contents

Annex E

Strictly Confidential

January 4, 2019

Vital Therapies, Inc.

Attention: Russell J. Cox

Chief Executive Officer

15010 Avenue of Science, Suite 200

San Diego, CA 92128

Members of the Board of Directors:

We have been advised that Vital Therapies Inc., a Delaware corporation (Vital or the Company), proposes to enter into an Exchange Agreement, expected to be dated as of January 4, 2019 (the Exchange Agreement), by and among the Company and Immunic AG, a stock corporation formed under the laws of Germany and registered with the commercial register (Handelsregister) of the local court of Munich (the Commercial Register) under number HRB 223333 (Immunic), and the shareholders of Immunic listed on Exhibit A thereto (the Holders). Pursuant to the Exchange Agreement, each Immunic Common Share and each Immunic Preferred Share, if any, outstanding immediately prior to the Effective Time (after giving effect to the Immunic Pre-Closing Financing and the Immunic Exit Bonus Agreements, and thus including all Immunic Pre-Closing Financing Shares and the Immunic Exit Bonus Shares) shall be exchanged solely for the right to receive the number of shares of Vital Common Stock equal to the Exchange Ratio such that, following the consummation of the Transaction, the holders of Company Common Stock (including the holders of certain unexercised options to purchase Company Common Stock) immediately prior to the Transaction shall hold approximately 88.9% of the fully diluted shares of Vital Common Stock outstanding immediately following the Transaction and the holders of Vital Common Stock immediately prior to the Transaction are expected to hold approximately 11.1% of the fully diluted shares of Vital Common Stock outstanding immediately following the Transaction, after accounting for the proposed $30M Pre-Closing Financing. The terms and conditions of the Transaction are more fully set forth in the Exchange Agreement and capitalized terms used but not defined herein shall have the meanings ascribed to such terms in the Exchange Agreement.

In your capacity as members of the Board of Directors (the Board of Directors) of Vital, you have requested our opinion (the Opinion), as to the fairness, from a financial point of view and as of the date hereof, of the Exchange Ratio to the holders of the Company Common Stock.

In connection with our Opinion, we took into account an assessment of general economic, market and financial conditions as well as our experience in connection with similar transactions and securities valuations generally and, among other things:

Reviewed a draft dated January 4, 2019 of the Exchange Agreement, which was the most recent draft made available to us prior to the delivery of our Opinion;

Reviewed and analyzed certain publicly available financial and other information for each of Vital and Immunic, respectively, including equity research on comparable companies and on Vital, and certain other relevant financial and operating data furnished to Ladenburg Thalmann by the management of Vital, including information Vital obtained from Immunic;

Table of Contents

Reviewed and analyzed certain relevant historical financial and operating data concerning Immunic furnished to Ladenburg Thalmann by the management of Vital, which Vital obtained from Immunic;

Discussed with certain members of the management of Vital the historical and current business operations, financial condition and prospects of Vital and Immunic;

Reviewed and analyzed certain operating results of Immunic as compared to operating results and the reported price and trading histories of certain publicly traded companies that Ladenburg Thalmann deemed relevant;

Reviewed and analyzed certain internal financial analyses, projections as to cost and expenses, reports, preliminary internal market opportunity assumptions and other information concerning Immunic prepared by the management of Immunic as well as projections for Immunic prepared and adjusted by the management of Vital which was then provided to Ladenburg and utilized per instruction of Vital;

Reviewed and analyzed certain financial terms of the Exchange Agreement as compared to the publicly available financial terms of certain selected business combinations that Ladenburg Thalmann deemed relevant;

Reviewed and analyzed certain financial terms of completed initial public offerings for certain companies that Ladenburg Thalmann deemed relevant;

Reviewed certain pro forma financial effects of the Transaction;

Reviewed and analyzed such other information and other factors, and conducted such other financial studies, analyses and investigations as Ladenburg Thalmann deemed relevant for the purposes of the Opinion; and

Took into account Ladenburg Thalmann s experience in other transactions, as well as Ladenburg Thalmann s experience in securities valuations and Ladenburg Thalmann s general knowledge of the industry in which Immunic operates

In conducting our review and arriving at our Opinion, we have, with your consent, assumed and relied, without independent investigation, upon the accuracy and completeness of all financial and other information provided to us by the Company and Immunic, respectively, or which is publicly available or was otherwise reviewed by us. We have not undertaken any responsibility for the accuracy, completeness or reasonableness of, or independent verification of, such information. We have relied upon, without independent verifications, the assessment of the Company management and Immunic management as to the viability of, and risks associated with, the current and future products and services of Immunic (including without limitation, the development, testing and marketing of such products and services, the receipt of all necessary governmental and other regulatory approvals for the development, testing and marketing thereof, and the life and enforceability of all relevant patents and other intellectual and other property rights associated with such products and services). In addition, we have not conducted, nor have assumed any

obligation to conduct, any physical inspection of the properties or facilities of the Company or Immunic. We have assumed, with your consent, that the only material asset of the Company is its net cash, that no other assets of the Company, including, without limitation, any net operating losses of the Company, have any material value and that the Company does not, and does not intend to, engage in any activity that may result in the generation of any revenue. We have, with your consent, relied upon the assumption that all information provided to us by the Company and Immunic is accurate and complete in all material respects. With respect to the financial forecasts supplied to us by the Company regarding Immunic, we have, with your consent, assumed that they were reasonably prepared on the basis reflecting the best currently available estimates and judgements of the management of the Company and Immunic, as applicable, as to the future operating and financial performance of the Company and Immunic, as applicable, and that they provided a reasonable basis upon which we could form our Opinion. We have been instructed by Vital, and have assumed, with your consent,

Table of Contents

that Vital s Net Cash immediately prior to the Closing is expected to be $4.7 million and Immunic is assumed to have $6.0 million of cash and no debt immediately prior to the Closing. If the Net Cash is outside of the collar range of $4.2 million to $5.2 million, Vital s valuation for purposes of determining the Exchange Ratio will be adjusted on a dollar-for-dollar basis. The Exchange Ratio will further be adjusted if Vital s Net Cash is below the Minimum Cash Amount of $1.5 million. We have further been advised that the Company may sell certain of its Vital Legacy Assets. As a result of the sale, any payment received will be directly additive to Vital s Net Cash. We therefore assume that the only value attributed to the Company will be its Net Cash and the value of its Nasdaq listing.

We expressly disclaim any undertaking or obligation to advise any person of any change in any fact or matter affecting our Opinion of which we become aware after the date hereof. We assumed there were no material changes in the assets, liabilities, financial condition, results of operations, business or prospects of the Company or Immunic since the date of the last financial statements made available to us. We have not made or obtained any independent evaluations, valuations or appraisals of the assets or liabilities of the Company or Immunic, nor have we been furnished with such materials. In addition, we have not evaluated the solvency or fair value of the Company or Immunic under any state or federal laws relating to bankruptcy, insolvency or similar matters. Our Opinion does not address any legal, tax or accounting matters related to the Agreement or the Transaction, as to which we have assumed that the Company and the Board of Directors of the Company have received such advice from legal, tax and accounting advisors as each has determined appropriate. Our Opinion addresses only the fairness of the Exchange Ratio, from a financial point of view to the holders of Company Common Stock. We express no view as to any other aspect or implication of the Transaction or any other agreement, arrangement or understanding entered into in connection with the Transaction or otherwise, and we express no opinion as to the terms of the Immunic Pre-Closing Financing (as defined in the Exchange Agreement). Our Opinion is necessarily based upon economic and market conditions and other circumstances as they exist and can be evaluated by us on the date hereof. It should be understood that although subsequent developments may affect our Opinion, we do not have any obligation to update, revise or reaffirm our Opinion and we expressly disclaim any responsibility to do so.

We have not considered any potential legislative or regulatory changes currently being considered or recently enacted by the United States or any foreign government, or any domestic or foreign regulatory body, or any changes in accounting methods or generally accepted accounting principles that may be adopted by the Securities and Exchange Commission, the Financial Accounting Standards Board, or any similar foreign regulatory body or board.

For purposes of rendering our Opinion we have assumed in all respects material to our analysis, that the representations and warranties of each party contained in the Agreement are true and correct, that each party will perform all of the standards of the covenants and agreements required to be performed by it under the Agreement and that all conditions to the consummation of the Transaction will be satisfied without waiver thereof. We have assumed that the final form of the Agreement will be substantially similar to the last draft reviewed by us. We have also assumed that all governmental, regulatory and other consents and approvals contemplated by the Agreement will be obtained and that in the course of obtaining any of those consents no restrictions will be imposed or waivers made that would have an adverse effect on the contemplated benefits of the Transaction. We have assumed that the Transaction will be consummated in a manner that complies with the applicable provisions of the Securities Act of 1933, as amended, the Securities Exchange Act of 1934, as amended, and all other applicable federal and state statutes, rules and regulations. You have informed us, and we have assumed, that the Transaction will be treated as a tax-free reorganization within the meaning of 368(a)(1)(B) of the Code.

It is understood that this letter is intended for the benefit and use of the Board of Directors of the Company in its consideration of the financial terms of the Transaction and may not be used for any other purpose or reproduced,

E-3

Table of Contents

disseminated, quoted or referred to at any time, in any manner or for any purpose without our prior written consent. This letter does not constitute a recommendation to the Board of Directors of the Company on whether or not to approve the Transaction or to any stockholder or any other person as to how to vote with respect to the Transaction or to take any other action in connection with the Transaction or otherwise. Our Opinion does not address the Company s underlying business decision to proceed with the Transaction or the relative merits of the Transaction compared to other alternatives available to the Company. We express no opinion as to the prices or ranges of prices at which shares of securities of any person, including the Company, will trade at any time, including following the announcement or consummation of the Transaction. We have not been requested to opine as to, and our Opinion does not in any manner address, the amount or nature of compensation to any of the officers, directors or employees of any party to the Transaction, or any class of such persons, relative to the compensation to be paid to the securityholders of the Seller in connection with the Transaction or with respect to the fairness of any such compensation.

Ladenburg Thalmann & Co. Inc. (Ladenburg) is a full-service investment bank providing investment banking, brokerage, equity research, institutional sales and trading and asset management services. As part of our investment banking services, we are regularly engaged in the valuation of businesses and their securities in connection with mergers and acquisitions, negotiated underwritings, secondary distributions of listed and unlisted securities, private placements and valuations for corporate and other purposes. We have acted as Vital s financial advisor in connection with the Transaction and will receive a fee for our services pursuant to the terms of our Engagement Letter, a significant portion of which is contingent upon consummation of the Transaction. To date, we have received a $75,000 up-front retainer which was paid to Ladenburg in connection with its engagement. In the three years preceding the date hereof, Ladenburg has not had a relationship with Vital and has not received any fees from Vital, aside from the $75,000 up-front retainer which was paid to Ladenburg in connection with its engagement. In the three years preceding the date hereof, Ladenburg has not had a relationship with Immunic and has not received any fees from Immunic. Ladenburg and its affiliates may in the future seek to provide investment banking or financial advisory services to Vital and Immunic and/or certain of their respective affiliates and expect to receive fees for the rendering of these services.

In the ordinary course of business, Ladenburg, certain of our affiliates, as well as investment funds in which we or our affiliates may have financial interests, may acquire, hold or sell long or short positions, or trade or otherwise effect transactions in debt, equity, and other securities and financial instruments (including bank loans and other obligations) of, or investments in, Vital, Immunic or any other party that may be involved in the Transaction and/or their respective affiliates.

Consistent with applicable legal and regulatory requirements, Ladenburg has adopted policies and procedures to establish and maintain the independence of our research department and personnel. As a result, our research analysts may hold views, make statements or investment recommendations and/or publish research reports with respect to the Company and the proposed Transaction that may differ from the views of Ladenburg s investment banking personnel.

The opinion set forth below was reviewed and approved by a fairness opinion committee of Ladenburg.

Based upon and subject to the foregoing, including the various assumptions and limitations set forth herein, it is our opinion that, as of the date hereof, the Exchange Ratio is fair to the holders of the Company Common Stock from a financial point of view.

Very truly yours,

/s/ Ladenburg Thalmann

Ladenburg Thalmann & Co. Inc.

Table of Contents

PART II

INFORMATION NOT REQUIRED IN PROXY STATEMENT/PROSPECTUS

Item 20. ***Indemnification of Directors and Officers***

The Registrant s amended and restated certificate of incorporation contains provisions that eliminate, to the maximum extent permitted by the General Corporation Law of the State of Delaware, the personal liability of the Registrant s directors and executive officers for monetary damages for breach of their fiduciary duties as directors or officers. The Registrant s amended and restated certificate of incorporation and amended and restated bylaws provide that the Registrant must indemnify its directors and executive officers and may indemnify its employees and other agents to the fullest extent permitted by the General Corporation Law of the State of Delaware.

Sections 145 and 102(b)(7) of the General Corporation Law of the State of Delaware provide that a corporation may indemnify any person made a party to an action by reason of the fact that he or she was a director, executive officer, employee or agent of the corporation or is or was serving at the request of a corporation against expenses (including attorneys fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by him or her in connection with such action if he or she acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, the best interests of the corporation and, with respect to any criminal action or proceeding, had no reasonable cause to believe his or her conduct was unlawful, except that, in the case of an action by or in right of the corporation, no indemnification may generally be made in respect of any claim as to which such person is adjudged to be liable to the corporation.

The Registrant has entered into indemnification agreements with its directors and executive officers, in addition to the indemnification provided for in its amended and restated certificate of incorporation and amended and restated bylaws, and intends to enter into indemnification agreements with any new directors and executive officers in the future.

The Registrant has purchased and intends to maintain insurance on behalf of any person who is or was a director or officer of the Registrant against any loss arising from any claim asserted against him or her and incurred by him or her in any such capacity, subject to certain exclusions.

Item 21. ***Exhibits and Financial Statement Schedules***

(a) Exhibit Index

A list of exhibits filed with this registration statement on Form S-4 is set forth on the Exhibit Index and is incorporated herein by reference.

(b) Financial Statements

The financial statements filed with this registration statement on Form S-4 are set forth on the Financial Statement Index and is incorporated herein by reference.

Item 22. ***Undertakings***

(a) The undersigned registrant hereby undertakes as follows:

(1) That prior to any public reoffering of the securities registered hereunder through use of a prospectus which is a part of this registration statement, by any person or party who is deemed to be an underwriter within the meaning of Rule 145(c), the issuer undertakes that such reoffering prospectus will contain the information called for by the applicable registration form with respect to reofferings by persons who may be deemed underwriters, in addition to the information called for by the other Items of the applicable form.

(2) That every prospectus (i) that is filed pursuant to paragraph (a)(1) immediately preceding, or (ii) that purports to meet the requirements of Section 10(a)(3) of the Securities Act and is used in connection with an offering of

Table of Contents

securities subject to Rule 415, will be filed as a part of an amendment to the registration statement and will not be used until such amendment is effective, and that, for purposes of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To respond to requests for information that is incorporated by reference into this proxy statement/prospectus pursuant to Item 4, 10(b), 11, or 13 of this Form S-4, within one business day of receipt of such request, and to send the incorporated documents by first class mail or other equally prompt means. This includes information contained in documents filed subsequent to the effective date of the registration statement through the date of responding to the request.

(4) To supply by means of a post-effective amendment all information concerning a transaction, and the company being acquired involved therein, that was not the subject of and included in the registration statement when it became effective.

(b) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

Table of Contents

EXHIBITS

Exhibit Number	Exhibit Title	Incorporated by Reference			
		Form	File No.	Exhibit	Filing Date
2.1	Exchange Agreement, dated as of January 6, 2019 by and among Vital Therapies, Inc., Immunic AG, and the Shareholders of Immunic AG.	8-K	001-36201	2.1	January 7, 2019
3.1	Amended and Restated Certificate of Incorporation of the Registrant.	S-1/A	333-191711	3.2	November 6, 2013
3.2	Second Amended and Restated Bylaws of the Registrant.	S-1/A	333-191711	3.4	November 6, 2013
4.1	Specimen Common Stock Certificate of the Registrant.	S-1/A	333-191711	4.1	November 6, 2013
4.2	Fourth Amended and Restated Investors Rights Agreement, dated August 28, 2013.	S-1	333-191711	4.2	October 11, 2013
4.3	Investors Rights Agreement, dated February 23, 2012.	S-1	333-191711	4.3	October 11, 2013
4.4	Amended and Restated Investors Rights Agreement, dated June 7, 2011.	S-1	333-191711	4.4	October 11, 2013
5.1*	Legal Opinion of Pillsbury Winthrop Shaw Pittman LLP.				
8.1*	Legal Opinion of Dentons Europe LLP regarding tax matters.				
8.2*	Legal Opinion of Dentons U.S. LLP regarding tax matters.				
10.1	Investment and Subscription Agreement, dated as of January 6, 2019, among Immunic AG and its Shareholders.	8-K	001-36201	10.1	January 7, 2019
10.2	Investment Banking Agreement between Ladenburg Thalmann & Co. Inc. and Vital Therapies, Inc., dated October 11, 2018.	8-K	001-36201	10.1	October 12, 2018
10.3+	Form of Indemnification Agreement between the Registrant and its directors and officers.	S-1/A	333-191711	10.1	November 6, 2013
10.4+	Employment Letter Agreement between the Registrant and Duane Nash, dated October 30, 2013.	S-1/A	333-191711	10.2	November 6, 2013

10.5+	Employment Letter Agreement between the Registrant and Robert A. Ashley, dated October 30, 2013.	S-1/A	333-191711	10.3	November 6, 2013
10.6+	Transition Agreement and Release between the Registrant and Terence E. Winters, dated December 4, 2017.	10-K	001-36201	10.4	March 13, 2018

Table of Contents

Exhibit Number	Exhibit Title	Incorporated by Reference			
		Form	File No.	Exhibit	Filing Date
10.7+	Employment Letter Agreement between the Registrant and Michael V. Swanson, dated August 30, 2013.	S-1/A	333-191711	10.5	November 6, 2013
10.8+	Employment Letter Agreement between the Registrant and Andrew Henry, dated October 30, 2013.	S-1/A	333-191711	10.6	April 3, 2014
10.9+	Employment Letter Agreement between the Registrant and Aron P. Stern, dated October 30, 2013.	S-1/A	333-191711	10.7	March 11, 2014
10.10+	Employment Letter Agreement between the Registrant and Richard Murawski, dated October 30, 2013.	S-1/A	333-191711	10.9	March 11, 2014
10.11+	Employment Letter Agreement between the Registrant and John Dunn, dated March 5, 2015.	10-K	001-36201	10.10	March 20, 2015
10.12+	Employment Letter Agreement between the Registrant and Russel J. Cox, dated November 30, 2017.	10-K	001-36201	10.10	March 13, 2018
10.13+	2012 Stock Option Plan and form of agreements.	S-1	333-191711	10.6	October 11, 2013
10.14+	2014 Equity Incentive Plan and form of agreements.	S-1/A	333-191711	10.11	March 11, 2014
10.15+	Amended Global Stock Option Agreement under 2014 Equity Incentive Plan.	10-K	001-36201	10.13	March 13, 2018
10.16+	Form of RSU Award Agreement under 2014 Equity Incentive Plan.	8-K	001-36201	10.1	January 14, 2019
10.17+	Vital Therapies, Inc. Amended & Restated 2017 Inducement Equity Incentive Plan.	S-8	333-222886	4.2	February 6, 2018
10.18+	Amended & Restated 2017 Inducement Equity Incentive Plan Form of U.S. Stock Option Agreement.	S-8	333-222886	4.3	February 6, 2018
10.19+	Executive Incentive Compensation Plan.	S-1	333-191711	10.8	October 11, 2013
10.20+	Form Change of Control and Severance Agreement.	S-1	333-191711	10.9	October 11, 2013
10.21+	Form of Amendment No. 1 to Change of Control and Severance Agreement.	8-K	001-36201	10.2	January 14, 2019

10.22+	Amended Outside Director Compensation Policy.	8-K	001-36201	10.1	May 27, 2016
10.23	Standard Industrial/Commercial Multi-Tenant Lease between R.E. Hazard Contracting Company and the Registrant, dated May 5, 2017.	10-Q	001-36201	10.18	May 9, 2017

Table of Contents

Exhibit Number	Exhibit Title	Incorporated by Reference			
		Form	File No.	Exhibit	Filing Date
10.24	Standard Office Lease between Arden Realty Limited Partnership and the Registrant, dated May 7, 2013.	S-1	333-191711	10.12	October 11, 2013
10.25	Amended Lease between BRA CA Office Owner LLC and the Company, dated August 23, 2016.	8-K	001-36201	10.1	August 29, 2016
21.1	List of subsidiaries of the Registrant.	10-K	001-36201	21.1	March 13, 2018
23.1*	Consent of PricewaterhouseCoopers LLP, Independent Registered Public Accounting Firm.				
23.2*	Consent of Baker Tilly GmbH & Co. KG, Independent Accounting Firm.				
23.3*	Consent of Pillsbury Winthrop Shaw Pittman LLP (included in Exhibit 5.1 hereto).				
23.4*	Consent of Dentons Europe LLP (included in Exhibit 8.1 hereto).				
23.5*	Consent of Dentons U.S. LLP (included in Exhibit 8.2 hereto).				
24.1^	Power of Attorney (included on the signature page).				
99.1*	Form of Vital Therapies, Inc. Proxy Card.				
99.2^	Proposed form of Certificate of Amendment of Amended and Restated Certificate of Incorporation of Vital Therapies, Inc. (included as Annex B to the proxy statement/prospectus).				
99.3^	Proposed form of Certificate of Amendment of Amended and Restated Certificate of Incorporation of Vital Therapies, Inc. (included as Annex C to the proxy statement/prospectus).				
99.4^	Consent of Dr. Daniel Vitt to serve as a director of Vital Therapies, Inc.				
99.5^	Consent of Dr. Jörg Neermann to serve as a director of Vital Therapies, Inc.				
99.6^					

	Consent of Dr. Vincent Ossipow to serve as a director of Vital Therapies, Inc.
99.7^	Consent of Jan van den Bossche to serve as a director of Vital Therapies, Inc.
101.INS^	XBRL Instance Document.
101.SCH^	XBRL Taxonomy Extension Schema Document.

Table of Contents

Exhibit Number	Exhibit Title	Incorporated by Reference			
		Form	File No.	Exhibit	Filing Date
101.CAL^	XBRL Taxonomy Extension Calculation Linkbase Document.				
101.DEF^	XBRL Taxonomy Extension Definition Linkbase Database.				
101.LAB^	XBRL Taxonomy Extension Label Linkbase Document.				
101.PRE^	XBRL Taxonomy Extension Presentation Linkbase Document.				

+ Indicates a management contract or compensatory plan or arrangement.
* Filed herewith.
^ Previously filed.

Table of Contents

SIGNATURES

Pursuant to the requirements of the Securities Act, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized in the city of San Diego, California, on the 14th day of February, 2019.

Vital Therapies, Inc.

By: /s/ Dr. Duane D. Nash
Name: Dr. Duane D. Nash
Title: Chief Executive Officer, President and Director

Pursuant to the requirements of the Securities Act, this registration statement has been signed by the following persons on behalf of the Registrant in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Dr. Duane D. Nash Dr. Duane D. Nash	Chief Executive Officer, President and Director *(Principal Executive Officer)*	February 14, 2019
/s/ Michael V. Swanson Michael V. Swanson	Executive Vice President and Chief Financial Officer (*Principal Financial and Accounting Officer*)	February 14, 2019
* Faheem Hasnain	Chairman	February 14, 2019
* Cheryl L. Cohen	Director	February 14, 2019
* Lowell E. Sears	Director	February 14, 2019

*By: /s/ Dr. Duane D. Nash
Dr. Duane D. Nash
Attorney-in-fact