

ARENA PHARMACEUTICALS INC
Form S-3
February 06, 2004

[QuickLinks](#) -- Click here to rapidly navigate through this document

As filed with the Securities and Exchange Commission on February 6, 2004

Registration No. 333-

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-3

REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

ARENA PHARMACEUTICALS, INC.

(Exact Name of Registrant as Specified in its Charter)

Delaware
(State or Other Jurisdiction of
Incorporation or Organization)

23-2908305
(I.R.S. Employer
Identification No.)

**6166 Nancy Ridge Drive
San Diego, California 92121
(858) 453-7200**

(Address, Including Zip Code and Telephone Number, Including
Area Code, of Registrant's Principal Executive Offices)

**Steven W. Spector, Esq.
Vice President and General Counsel
6166 Nancy Ridge Drive
San Diego, California 92121
(858) 453-7200**

(Name, Address, Including Zip Code and Telephone Number, Including
Area Code, of Agent for Service)

Copies to:

**Robert S. Reder, Esq.
Milbank, Tweed, Hadley & McCloy LLP
1 Chase Manhattan Plaza
New York, NY 10005
(212) 530-5680**

Approximate date of commencement of proposed sale to the public: As soon as practical after this Registration Statement becomes effective.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box.

Edgar Filing: ARENA PHARMACEUTICALS INC - Form S-3

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

If this Form is a post-effective amendment filed pursuant to Rule 462(c) 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 delivery of the prospectus is expected to be made pursuant to Rule 434, please check the following box.

CALCULATION OF REGISTRATION FEE

| Title of each class of securities to be registered | Amount to be registered(1) | Proposed maximum offering price per unit | Proposed maximum aggregate offering price | Amount of registration fee |
|---|----------------------------|--|---|----------------------------|
| Common Stock issuable upon conversion of Preferred Stock(2) | 6,309,524 shares | \$ 5.93(3) | \$ 37,415,478 | \$ 4,741 |
| Common Stock issuable upon exercise of Warrants(2) | 1,486,200 shares | \$ 5.93(3) | \$ 8,813,166 | \$ 1,117 |
| Common Stock issuable upon exercise of Additional Warrants(2) | 450,000 shares | \$ 5.93(3) | \$ 2,668,500 | \$ 339 |
| Common Stock issuable as payment of dividends(2) | 2,937,209 shares | \$ 5.93(3) | \$ 17,417,650 | \$ 2,207 |
| Common Stock(2) | 45,000 shares | \$ 5.93(3) | \$ 266,850 | \$ 34 |
| Total | 11,227,933 shares | \$ 5.93(3) | \$ 66,581,644 | \$ 8,438 |

- (1) In the event of a stock split, stock dividend, or similar transaction involving the Registrant's common stock, in order to prevent dilution, the number of shares registered shall automatically be increased to cover the additional shares in accordance with Rule 416(a) under the Securities Act.
- (2) The shares being registered hereby will be accompanied by the Registrant's preferred stock purchase rights. Until the occurrence of certain prescribed events, such rights are not exercisable, are evidenced by the certificates for the Registrant's common stock, and will be transferred along with and only with the Registrant's common stock.
- (3) Estimated solely for the purpose of calculating the amount of the registration fee in accordance with Rule 457(c) under the Securities Act of 1933 based on the average of the high and low sales prices of the Registrant's common stock on the NASDAQ National Market on January 30, 2004.

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 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.

Subject to Completion, dated February 5, 2004

INFORMATION CONTAINED HEREIN IS SUBJECT TO COMPLETION OR AMENDMENT. A REGISTRATION STATEMENT RELATING TO THESE SECURITIES HAS BEEN FILED WITH THE SECURITIES AND EXCHANGE COMMISSION. THESE SECURITIES MAY NOT BE SOLD NOR MAY OFFERS TO BUY BE ACCEPTED PRIOR TO THE TIME THE REGISTRATION STATEMENT BECOMES EFFECTIVE. THIS PROSPECTUS SHALL NOT CONSTITUTE AN OFFER TO SELL OR THE SOLICITATION OF AN OFFER TO BUY NOR SHALL THERE BE ANY SALE OF THESE SECURITIES IN ANY STATE IN WHICH SUCH OFFER, SOLICITATION OR SALE WOULD BE UNLAWFUL PRIOR TO REGISTRATION OR QUALIFICATION UNDER THE SECURITIES LAWS OF ANY SUCH STATE.

PROSPECTUS

UP TO 11,227,933 SHARES OF
ARENA PHARMACEUTICALS, INC.

Edgar Filing: ARENA PHARMACEUTICALS INC - Form S-3

We are a biopharmaceutical company that discovers and develops drugs that act on an important class of drug targets called G protein-coupled receptors, or GPCRs. We use our Constitutively Activated Receptor Technology, or CART, Melanophore technology and other proprietary technologies to identify small chemical molecules that may lead to new drugs in four major therapeutic areas: metabolic diseases, cardiovascular diseases, central nervous system disorders and inflammatory diseases. We intend to initiate our first human studies on one of our internally discovered compounds for metabolic disease and obesity in the first quarter of 2004.

In addition to our internal discovery and development efforts, we have research and development collaborations with several pharmaceutical and biotechnology companies, including Merck & Co., Fujisawa Pharmaceutical Co. and Taisho Pharmaceutical Co.

The pharmaceutical marketplace in which we operate includes many large, well-established companies competing with us to develop treatments for the same diseases and disorders. See "Risk Factors" below.

This prospectus relates to the sale of up to 11,227,933 shares of our common stock by the stockholders identified under the heading "Selling Stockholders" below. The securities were issued and sold to the selling stockholders in private placement transactions.

Arena Pharmaceuticals® and Arena® are registered service marks of the company. CART is an unregistered service mark of the company. Our corporate offices are located at 6166 Nancy Ridge Drive, San Diego, California 92121. Our telephone number is (858) 453-7200. Our website address is www.arenapharm.com. Information contained in our website does not constitute part of this prospectus.

Unless otherwise specified or required by context, references in this prospectus to "we," "us," "our" and "Arena" refer to Arena Pharmaceuticals, Inc. and its subsidiaries on a consolidated basis.

RISK FACTORS

An investment in our stock involves a high degree of risk. Investors evaluating us should carefully consider the factors described below and all other information contained in this prospectus and in our other public filings before making investment decisions regarding our stock. Any of the following factors could materially harm our business, operating results and financial condition. Additional factors and uncertainties not currently known to us or that we currently consider immaterial could also harm our business, operating results and financial condition. Investors could lose all or part of their investment as a result of these factors.

Our largest stockholders may take actions that are contrary to your interests

A small number of our stockholders hold a significant amount of our outstanding stock. These stockholders' interests could differ from the interests of other stockholders, and they could be in a position to affect us in a way that is detrimental to the interests of other stockholders. Sales by these stockholders of our common stock could adversely affect the market price for our stock. In addition, their actions and votes would be important, and possibly determinative, in the event we consider a transaction that requires stockholder approval or in the event a third party makes a tender offer and/or a hostile take-over offer for outstanding shares.

As of January 24, 2004, Biotechnology Value Fund, L.P., Biotechnology Value Fund II, L.P., BVF Investments, L.L.C., BVF Partners L.P., BVF Inc. (collectively, "BVF") and Investment 10, L.L.C. (collectively with BVF, the "BVF Stockholders") reported that they own or control approximately 12.2% of our outstanding common stock. Our Stockholders Agreement with the BVF Stockholders provides that the BVF Stockholders will not, on their own or as part of a larger group, (i) acquire any

of our stock or assets, (ii) solicit proxies or submit stockholder proposals except as provided in such agreement, or (iii) engage in any of the actions set forth in paragraphs (a) through (j) of Item 4 of Schedule 13D. Our Stockholders Agreement also provides that the BVF Stockholders will vote for director nominees recommended by our board of directors and on certain other matters as recommended by our board of directors. These provisions under the Stockholders Agreement terminate on December 31, 2004, or earlier if the BVF Stockholders and certain related parties beneficially own less than 1,914,603 shares of our common stock. We believe that the BVF Stockholders favor a strategic direction for the company that is different than the one favored by management. The BVF Stockholders have recently sold a large number of our shares. Further sales by the BVF Stockholders may have an adverse effect on the near-term market price for our stock.

If APD356 fails in clinical trials, we may significantly curtail some of our activities

Edgar Filing: ARENA PHARMACEUTICALS INC - Form S-3

We expect to initiate our first clinical trial on an internally discovered compound, which we call APD356, in the first quarter of 2004. This trial will be conducted at a contract Phase I unit in England. If APD356 is found to be unsafe in, or not tolerated by, the people we test in our Phase I clinical trial, we may not be able to raise new financing or generate significant revenue in the next year or two. In such an event, we may need to significantly curtail some of our current and planned research and development programs.

We have a history of losses and expect our losses to continue

We had losses of \$47.1 million for the year ended December 31, 2003, and we had an accumulated deficit of \$107.5 million from our inception in April 1997 through December 31, 2003. Our losses have resulted in large part from the significant research and development expenditures we have made in seeking to identify and validate new drug targets and compounds that could become marketed drugs. We expect our operating expenses over the next several years will be significant and that we will continue to have significant operating losses in the near-term, even if we or our collaborators are successful in advancing compounds discovered using our technologies.

In addition, losses allocable to our common stockholders will be increased as a result of our recent Series B Convertible Preferred Stock financing. In accordance with EITF 00-27, *Application of Issue No. 98-5 for Certain Convertible Instruments*, we allocated the total proceeds received in this financing among the Series B Convertible Preferred Stock, the warrants and the unit warrants. The amount we allocated to the warrants and unit warrants was \$6.5 million. As a result of this allocation, we recorded on our financial statements a deemed dividend of \$2.8 million. This deemed dividend is based on the value of the common stock underlying the Series B Convertible Preferred Stock. We will record amortization of the value of the warrants, unit warrants and deemed dividend over five years, which will increase the losses allocable to our common stockholders.

We will need additional funds in the future for our research and development, and we may not be able to obtain such funds

We cannot sustain our current operating plan for more than the next two or three years unless we obtain additional financing from collaborators or investors. In addition, it takes more cash than what we currently have to successfully develop a compound into a marketed drug. Financing may not be available, or may not be available on terms that are favorable, to us.

We do not believe that we can currently license our programs or technologies on terms that would significantly reduce the need for us to obtain additional financing from investors. Our strategy is to continue developing these programs and move them towards or into clinical development so that we can achieve better financial terms with a collaborator and, therefore, be able to continue our drug discovery efforts at their current levels. If our research and development efforts are not successful in

4

the next one or two years, and if we do not receive new financing from investors, we may need to license our programs on financial terms that are unfavorable to us.

Any further financing through the issuance of common stock, preferred stock or other equity will dilute your investment, and may also include terms that give new investors rights that are superior to yours. We may also raise additional funds through the incurrence of debt, and the holders of any debt we may issue would have rights superior to your rights in the event we are not successful.

Our stock has not performed as well as the stock of many of our peers for some time. We do not presently have any sell-side analysts, and may not have analysts covering our stock. These factors, and many others, may affect our ability to access capital markets.

If adequate funds are not available to us, we will be required to significantly curtail or eliminate one or more of our drug discovery or development programs, or to completely discontinue our operations.

All of our programs are in the early stage of drug discovery and development, and if problems arise in the testing or approval process, our drug development efforts may be delayed or may not be successful

We are transitioning from primarily a research company to a research and development company. The research and development of new medicines is highly uncertain and subject to significant risks. Our most advanced program is in the early stages of development. We do not expect any drugs resulting from our research to be commercially available for many years, if ever.

Conducting pre-clinical and clinical trials takes a long time, typically many years, and failure often occurs. Interim results of trials do not assure final results, and acceptable results in early trials may not be repeated in later trials.

Edgar Filing: ARENA PHARMACEUTICALS INC - Form S-3

In the course of our discovery, preclinical testing and clinical trials, we will rely on third-parties, including laboratories, investigators and manufacturers, to perform critical services for us. For example, we will be relying on an European-based clinical trial contractor to conduct our Phase I clinical trials for APD356. This organization is responsible for many aspects of these trials, including finding and enrolling volunteers for testing and administering the testing. Another example is that we are currently relying on a contract manufacturer to make certain compounds for us. These third-parties may not be available when we need them or, if they are available, may not perform their services in a timely or acceptable manner. As a result of our dependence on third-parties, we may face delays or failures outside of our direct control.

Governmental authorities in the U.S., Europe and other countries heavily regulate the testing, development, manufacturing and marketing of drugs. Any compound we are testing may not prove to be safe or effective or meet all of the applicable regulatory requirements. We may elect to, or a regulatory agency may require us to, discontinue development of a compound at any time for scientific, regulatory, commercial or other reasons.

These regulations are complex and change from time to time. For example, the European Union has passed a directive that goes into effect May 1, 2004, that would require us to obtain regulatory approval to conduct clinical trials in European Union after May 1. We are planning to conduct our Phase I clinical trial for APD356 in England. If we do not complete testing for this clinical trial before May 1, then we could experience delays as we seek approval from the Medicines and Healthcare products Regulatory Agency (MHRA) (the equivalent of the FDA in the United Kingdom) to continue our testing.

These risks also apply to the development activities of our collaborators, and we do not expect any drugs resulting from our collaborators' research and development efforts to be commercially available for many years, if ever.

5

Our efforts will be seriously jeopardized if we are unable to retain and attract key employees

Our success depends on the continued contributions of our principal management, development and scientific personnel, and the ability to hire and retain key personnel, particularly in the clinical development area as we transition more of our programs from research into drug development. We face intense competition for such personnel. We consider finding and retaining experienced clinical development and other personnel as critical to our future performance. If we are unable to attract qualified persons or lose the service of key persons, our research and development programs could be interrupted, significantly delayed or otherwise negatively impacted.

Our revenues are contingent upon the actions of our existing and potential collaborators

Our revenues depend on our ability to enter into new collaborative and license agreements and the success of our existing collaborations. We will receive little revenue under our existing agreements if our own or our collaborators' research, development or, ultimately, marketing efforts are unsuccessful, or if our agreements are terminated early. Typically, our collaborators (and not us) control the development of compounds into drugs after we have met early pre-clinical scientific milestones, and we are not entitled to the more significant milestones and other payments under our agreements until our collaborators have advanced compounds into clinical testing, which may not occur for many years, if ever. Absent any new collaborations, we expect substantially all of our revenues in 2004 will be derived from our collaboration with Merck.

Our revenues will be materially impacted if:

Our collaborators terminate our agreements;

Our collaborators do not devote their time and financial resources to develop compounds identified with our technologies;

Our collaborators dispute whether we have achieved a milestone, rights to a particular receptor or compound, or other terms of our agreements;

Collaborators and potential collaborators use alternative technologies to our technologies and compete with us in developing drugs; and

Our collaborators experience failures in the discovery or development of compounds identified with our technologies or in the clinic or marketplace with other drugs that cause them to discontinue or slow down progress under our collaboration.

The term of the collaborative research program with Merck is three years from October 21, 2002. Merck can terminate this program for any of the following reasons: (i) without cause, at any time on or after the second anniversary of October 21, 2002, by giving notice at least 90 days prior to such termination date, if certain milestones have been achieved and paid; (ii) without cause, at any time after the second anniversary of October 21, 2002, by giving 180 days prior notice; (iii) for "technical grounds," as described in the agreement, by giving 30 days prior notice; and (iv) in the event of a change in control of Arena, by giving 30 days prior notice. Merck can also terminate the agreement without any reason at any time after the third anniversary of October 21, 2002. Either party can terminate the agreement at any time for cause if the other party breaches its material obligations under the agreement by causes and reasons within its control, has not cured such breach and there is no dispute as to whether such breach has occurred. Additionally, in lieu of terminating the agreement, Merck can terminate certain aspects of the agreement by giving 90 days prior notice if we materially breach our obligations at any time during the period from October 21, 2002, to the third anniversary of such date (or such earlier date of termination) and fail to cure such breach, if such default can be cured but not within a certain period, or if we do not commence and diligently continue good faith

6

efforts to cure such default during such period. In the event of any such termination, our revenues would be materially adversely affected.

Consolidation in our industry and our or our collaborator's inability to obtain acceptable prices for drugs could make partnering more difficult and diminish our revenues

Consolidation in the pharmaceutical and biotechnology industry and setbacks caused by competition from generic drugs and litigation may have an adverse effect on us by reducing the number of potential and current collaborators and their research budgets.

In addition, our and our collaborators' ability to commercialize future drugs will depend in part on government regulation and the reimbursement policies of government authorities, private health insurers and other third party payors. Government and third party payors are increasingly attempting to contain healthcare costs by limiting coverage and reimbursement levels for new drugs. These efforts may limit our commercial opportunity now (by reducing the amount a potential collaborator is willing to pay to license our programs) and in the future (by reducing the revenues that we and our collaborators could generate from drug sales).

A dispute regarding the infringement or misappropriation of our proprietary rights or the proprietary rights of others could be costly and result in delays in our research and development activities

Our success depends, in part, on our ability to operate without infringing on or misappropriating the proprietary rights of others. There are many issued patents and patent applications filed, and that may be filed, by others relating to our drug discovery and development programs that could be determined to be similar, identical or superior to ours or our licensors or collaborators. Our activities, or those of our licensors or collaborators, may infringe these patents. Although the government sponsored project to sequence the human genome has made genomics information freely available to the public, other organizations, companies and individuals are seeking proprietary positions on genomics information that overlap with the government sponsored project. Our activities, or those of our licensors or collaborators, could be affected by conflicting positions that may exist between any overlapping genomics information made available publicly as a result of the government sponsored project and genomics information that other organizations, companies or individuals consider to be proprietary.

There could be significant litigation and other administrative proceedings in our industry regarding patent and other intellectual property rights. Any legal action against us, or our collaborators, claiming damages or seeking to enjoin commercial activities relating to our drug discovery and development programs could:

require us, or our collaborators, to obtain a license to continue to use, manufacture or market the affected products, methods or processes, which may not be available on commercially reasonable terms, if at all;

prevent us from importing, making, using, selling or offering to sell the subject matter claimed in patents held by others and subject us to potential liability for damages;

consume a substantial portion of our managerial, scientific and financial resources; or

result in litigation or administrative proceedings that may be costly, regardless of the outcome.

In addition, third parties may infringe on or misappropriate our proprietary rights, and we may have to institute costly legal action to protect our intellectual property rights. We may not be able to afford the costs of enforcing or defending our intellectual property rights against third parties.

Drug discovery and development is an intensely competitive business that could render our technologies obsolete or noncompetitive

The main focus of our efforts are G protein-coupled receptors, or GPCRs. Because GPCRs are an important target class for drug discovery efforts, we believe that most pharmaceutical companies, including GlaxoSmithKline PLC, which we view as our chief competitor in terms of GPCR knowledge and expertise, and many biotechnology companies and other organizations, have internal drug discovery programs focused on GPCRs. Another company, organization or individual could have, or could develop, a technology using GPCRs to discover and develop compounds into drugs more effectively or more efficiently than our screening and other technologies. Such a technology could render our technologies, in particular our constitutively activated receptor technology, or CART, and Melanophore technology, obsolete or noncompetitive.

7

Many of the drugs that we or our collaborators are attempting to discover and develop would compete with existing therapies. In addition, many companies are pursuing the development of drugs that target the same diseases and conditions that we are targeting such as metabolic diseases, cardiovascular diseases, central nervous system disorders and inflammatory diseases. Our competitors, or even our collaborators, may use discovery technologies and techniques to develop compounds into drugs more efficiently or successfully than we or our collaborators are able to do with our technologies. Many of our competitors, particularly large pharmaceutical companies, have substantially greater research and development capabilities and greater financial, scientific and human resources than we do. Companies that complete clinical trials, obtain required regulatory agency approvals and commence commercial sale of their drugs before we do for the same indication may achieve a significant competitive advantage, including certain patent and FDA marketing exclusivity rights. In addition, our competitors may develop drugs with fewer side effects, more desirable characteristics such as route of administration or frequency of dosing, and/or greater efficacy than our drugs, if any, for the same indication. Any results from our research and development efforts, or from our joint efforts with our existing or any future collaborators, may not compete successfully with existing products or therapies.

Our success is dependent on intellectual property rights held by us and third parties and our interest in these rights is complex and uncertain

Our success will depend on our own and on our collaborators' abilities to obtain, secure and defend patents, and particularly the patents directed to compounds discovered using our technologies. We have numerous United States and foreign patent applications pending for our technologies, including patent applications on drug lead discovery techniques using CART, genetically altered GPCRs, GPCRs that we have discovered, new uses for previously discovered GPCRs, compounds discovered using CART and Melanophore and other technologies. The procedures for obtaining an issued patent in the United States and in most foreign countries are complex. These procedures require an analysis of the scientific technology related to the invention and many legal issues. Consequently, we expect that the analysis of our patent applications will be complex and time consuming. Therefore, our patent position is very uncertain and we do not know when, or if, we will obtain additional issued patents for our technologies.

In 2000, the United States Patent and Trademark Office began issuing broad patent claims that could allow patent holders to control the use of all drug products that modulate a particular drug target or GPCR, regardless of whether the infringing drug product bears any structural resemblance to a chemical compound known to the patent holder at the time of patent filing. The question of whether these new patent claims are valid and if so under what circumstances is highly controversial and the subject of intense litigation. Whether we or our competitors are able to obtain and enforce such patent claims particularly as they apply to the GPCRs that are the subject of our drug development activities may have a large impact on our profits from any drugs that we are able to develop. Moreover, the uncertainty surrounding the validity of these patent claims may make it significantly more difficult to predict future profits and to raise additional financing.

More consistent policies regarding the breadth of claims allowed in biotechnology patents have begun to emerge in the last few years. For example, on January 5, 2001, the United States Patent and Trademark Office issued finalized Utility Examination Guidelines to its patent examiners that focus on what can be patented under United States patent law. These guidelines are beginning to be implemented in a more consistent fashion and primarily impact the procedures that are used in determining the types of inventions that can be patented and the minimum threshold of information necessary to patent inventions in the fields of biotechnology and chemistry. We still do not completely know to what extent these guidelines will ultimately affect our patents or those of our competitors and collaborators.

We also rely on trade secrets to protect our technologies. However, trade secrets are difficult to protect. We require all of our employees to contractually agree not to improperly use our trade secrets or disclose them to others, but we may be unable to determine if our employees have conformed or will conform with their legal obligations under these agreements. We also require collaborators and consultants to enter into confidentiality agreements, but we may not be able to adequately protect our trade secrets or other proprietary information in the event of any unauthorized use or disclosure or the lawful development by others of this information. Many of our employees and consultants were, and many of them may currently be, parties to confidentiality agreements with other pharmaceutical and biotechnology companies, and the use of our technologies could violate these agreements. In addition, third parties may independently discover our trade secrets or proprietary information.

Technology licensed to us by others, or in-licensed technology, is important to some aspects of our business. With a few exceptions, we generally do not control the patent prosecution, maintenance or enforcement of in-licensed technology. Accordingly, we are unable to exercise the same degree of control over in-licensed technology as we do over our internally developed technologies. Moreover, some of our academic institution licensors, research collaborators and scientific advisors have rights to publish data and information to which we have rights. If we cannot maintain the confidentiality of our technologies and other confidential information in connection with our collaborations, then our ability to receive patent protection or protect our proprietary information will be impaired.

We cannot protect our intellectual property rights throughout the world

Filing patents on all of our drug discovery technologies throughout the world would be prohibitively expensive. Competitors may use our technologies in jurisdictions where we have not obtained patent protection to develop their own drug products. These products may compete with our products and may not be covered by any of our patent claims or other intellectual property rights.

Patent law outside the United States is also uncertain and in many countries is currently undergoing review and revision, particularly with respect to biotechnology-related and pharmaceutical inventions. The laws of some countries do not protect our intellectual property rights to the same extent as United States laws. It may be necessary or useful for us to participate in proceedings to determine the validity of our, or our competitors', foreign patents, which could result in substantial cost and divert our efforts and attention from other aspects of our business.

Our operations might be interrupted by the occurrence of a natural disaster or other catastrophic event

We depend on our collaborators, contractors and vendors and on our laboratories and other facilities for the continued operation of our business. Natural disasters or other catastrophic events, including terrorist attacks, power interruptions, wildfires and other fires, actions of animal rights activists, earthquakes and wars, could disrupt our operations or those of our collaborators, contractors and vendors. Even though we carry business interruption insurance, and our contractors may carry liability insurance, that protect us in certain events, we might suffer losses as a result of business interruptions that exceed the coverage available under our and our contractors' insurance policies or for which we or our contractors do not have coverage. Any natural disaster or catastrophic event could have a significant negative impact on our operations and financial results.

We may encounter significant delays or problems with our new chemical development facility

We have a chemical development facility that we are using for process research, the scale-up and production of intermediates and other compounds for research and development purposes, and the production of active pharmaceutical ingredients.

We are completing the activities needed to obtain the applicable manufacturing licenses to produce materials in accordance with current good manufacturing practices, or cGMP. U.S., Europe and other regulatory authorities require that clinical and commercial products be manufactured according to cGMP regulations. In addition, drug-manufacturing facilities in the state of California must be inspected and licensed by the California Department of Health Services in compliance with state regulatory requirements. California law prohibits the shipment of product from a manufacturing facility for any clinical testing or commercial use prior to satisfaction of licensing requirements. There is no assurance that we will obtain a license, or obtain it in a timely manner.

We may encounter delays and problems in operating our chemical development facility due to:

governmental approvals, permits and regulation of the facility;

accidents during operation of the facility;

installation of equipment for the facility;

delays in receiving raw materials from suppliers;

natural or other disasters; or

other factors inherent in operating a complex manufacturing facility.

Even if we are able to successfully commence full operation of our chemical development facility, we may not be able to do so in a cost-effective manner or in a time frame that is consistent with our expected future manufacturing needs. In addition, our future manufacturing needs may not be sufficient to allow the facility to be fully operational.

Our quarterly operating results may fluctuate and may cause our stock price to decline

Our revenues and results of operations may fluctuate significantly from quarter to quarter, depending on a variety of factors, including:

the timing of the discovery of drug leads and the development of drug candidates, if any;

entering into a new collaboration or modifying or terminating an existing collaboration;

the timing of and receipt by us of milestone and royalty payments;

changes in the research and development budgets of our existing collaborators or potential collaborators;

others introducing new drug discovery techniques or new drugs that target the same diseases and conditions that we or our collaborators target;

regulatory actions;

changes in accounting principles generally accepted in the United States; and

expenses related to, and the results of, litigation and other proceedings relating to intellectual property rights or other matters.

We are not able to control all of these factors. Period-to-period comparisons of our financial results are not necessarily indicative of our future performance. If our revenues in a particular period do not meet stockholders' or analysts' expectations, our stock price may decline and such decline could be significant.

There are a substantial number of shares of our common stock eligible for future sale in the public market. The sale of these shares could cause the market price of our common stock to fall. Any future equity issuances by us may have dilutive and other effects on our existing stockholders.

There were 25,559,022 shares of our common stock outstanding as of January 31, 2004. The outstanding shares of our Series B-1 Convertible Preferred Stock are convertible into up to 4,666,667 shares of common stock, and holders of our Series B-1 Convertible Preferred Stock may receive additional shares of our Series B-1 Convertible Preferred Stock or common stock as payment of dividends. In addition, our Series B-1 Convertible Preferred Stock owners hold warrants to acquire common stock and unit warrants to acquire Series B-2 Convertible Preferred Stock and additional warrants to acquire common stock, which, if exercised and converted, would obligate us to issue up to 3,579,057 additional shares of common stock at a weighted average exercise price of \$8.62 per share. In addition, as of January 31, 2004, there were 2,932,575 common stock options issued and outstanding under our equity compensation plans at a weighted average exercise price of \$9.34, 1,376,674 shares of common stock reserved for issuance under our equity compensation plans, 795,366 shares of common stock reserved for issuance under our 2001 Employee Stock Purchase Plan and 127,501 shares issuable under a deferred compensation plan. A substantial number of the shares described above, when we issue them upon exercise, will be available for immediate resale in the public market. The market price of our common stock could fall as a result of such resales due to the increased number of shares available for sale in the market.

We have financed our operations, and we expect to continue to finance our operations, primarily by issuing and selling our common stock or securities convertible into or exercisable for shares of our common stock. Any issuances by us of equity securities may be at or below the prevailing market price of our common stock and may have a dilutive impact on your ownership interest. As a result, the market price of our common stock could drop.

Provisions of our preferred stock may prevent or make it more difficult for us to raise funds or take certain other actions.

Provisions of the Series B Convertible Preferred Stock may require us to obtain approval of the preferred stockholders, or otherwise trigger rights of first refusal or payment provisions, to (i) offer or sell new securities, other than in underwritten offerings, licensing transactions and certain other exceptions, (ii) sell or issue common stock or securities issuable into common stock below certain prices, (iii) incur debt or allow liens on our property, other than certain permitted debt and liens, (iv) amend our certificate of incorporation so as to affect adversely any rights of the preferred stockholders, (v) authorize or create a new class of stock that will be senior or equal to the Series B Convertible Preferred Stock in terms of dividends, redemption or distribution of assets, (vi) use more than \$25 million in cash for acquisitions or (vii) take certain other actions. These provisions may make it more difficult for us to take certain corporate actions and could delay, discourage or prevent future financings.

We may engage in strategic transactions that could impact our liquidity

From time to time we consider strategic transactions, such as acquisitions of companies, asset purchases and/or out-licensing or in-licensing compounds developed by us or others. These additional potential transactions may include a variety of different business arrangements, including spin-offs, acquisitions, strategic partnerships, joint ventures, restructurings, divestitures, business combinations and investments. Any such 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 harm our operations and financial results.

Our rights agreement and certain provisions in our charter documents and Delaware law could delay or prevent a change in management or a takeover attempt that you may consider to be in your best interest

We have adopted certain anti-takeover provisions, including a stockholders' rights plan, dated as of October 30, 2002, between us and Computershare Trust Company, Inc., as Rights Agent as amended on December 24, 2003 (the "Rights Agreement"). The Rights Agreement is not intended to prevent an acquisition of us at a full and fair price. Rather, it is intended to deter an attempt to acquire us in a manner or on terms not approved by our Board of Directors, and will cause substantial dilution to any person who attempts to acquire us in a manner or on terms not so approved. The Rights Agreement may make it more difficult for a third party to acquire us.

The terms of the Series B Convertible Preferred Stock Purchase Agreement provide that the Series B Convertible Preferred Stock holders are entitled to receive a premium in the event of a change of control. The Series B Convertible Preferred Stock holders have also agreed to vote as recommended by our board of directors on all matters in which the common stockholders have the right to vote. These provisions and others may also make it more difficult for someone to acquire us.

Edgar Filing: ARENA PHARMACEUTICALS INC - Form S-3

Additionally, provisions in our certificate of incorporation and by-laws, as well as some provisions of Delaware law, could delay or prevent the removal of directors and could make more difficult a merger, tender offer or proxy contest involving us. These documents include provisions that:

allow our board of directors to issue preferred stock without stockholder approval;

limit who can call a special meeting of stockholders;

eliminate stockholder action by written consent; and

establish advance notice requirements for nomination for election to the board of directors or for proposing matters to be acted upon at stockholders meetings.

Holders of our Series B Convertible Preferred Stock may require us to redeem their Series B Convertible Preferred Stock, and we will be required to redeem any shares of Series B Convertible Preferred Stock that remain outstanding on the fifth anniversary of their issuance

In December 2003, we completed the private placement to two institutional investors of (i) an aggregate of 3,500 shares of our Series B-1 Convertible Preferred Stock (ii) seven-year warrants to purchase up to an aggregate of 1,486,200 shares of our common stock at an exercise price of \$10.00 per share and (iii) unit warrants to purchase for a period of approximately 16 months up to \$11,500,000 of our Series B-2 Convertible Preferred Stock and additional seven-year warrants to purchase up to 450,000 shares of our common stock at an exercise price of \$10.00 per share. If (i) following the 21st month anniversary of the original issue date of the applicable series of Series B Convertible Preferred Stock, our closing price of our common stock for any 30 days is below the applicable conversion price for the Series B Convertible Preferred Stock or (ii) we issue common stock or common stock equivalents for less than \$6.72, in the case of the Series B-1 Convertible Preferred Stock, or a price to be determined based on a formula, in the case of Series B-2 Convertible Preferred Stock, then in each case the holders of the Series B Convertible Preferred Stock may require us to redeem their shares of the applicable series of Series B Convertible Preferred Stock at a price equal to the amount of the original holder's original investment, plus all accrued but unpaid dividends thereon to the date of payment and any applicable penalties. In addition, we will be required to redeem any shares of the Series B Convertible Preferred Stock that remain outstanding on the fifth anniversary of their issuance at a price equal to the amount of the original holder's original investment, plus all accrued but unpaid dividends thereon to the date of such payment. We can elect to pay the redemption price in shares of our common stock if certain specified conditions have been met.

12

There can be no assurance that we will not have to redeem the Series B Convertible Preferred Stock, or, if we do have to redeem the stock, that we will be able to pay the redemption price using shares of our common stock. If we use common stock to redeem the Series B Convertible Preferred Stock, your ownership interest may be significantly diluted. If we are required or elect to redeem shares of the Series B Convertible Preferred Stock using cash, we may not have sufficient cash to redeem these shares or to continue our planned research and discovery activities. In such event we would likely try to raise additional capital by issuing new stock, but there can be no assurance that capital will be available on acceptable terms or at all.

We use biological and hazardous materials

Our research and development activities involve the use of potentially harmful biological materials as well as hazardous materials, chemicals and various radioactive compounds. We cannot completely eliminate the risk of accidental contamination, which could cause:

an interruption of our research and development efforts;

injury to our employees and others resulting in the payment of damages;

environmental damage resulting in costly clean up; or

liabilities under federal, state and local laws and regulations governing the use, storage, handling and disposal of these materials and specified waste products.

FORWARD-LOOKING STATEMENTS

This prospectus and the documents incorporated by reference into this prospectus contain forward-looking statements that are based on current expectations, estimates and projections about our industry, management's beliefs, and assumptions made by management. Words such as "will," "aim," "hope," "anticipate," "expect," "intend," "plan," "believe," "seek," "estimate," and variations of such words and similar expressions are intended to identify such forward-looking statements. These statements are not guarantees of future performance and are subject to certain risks, uncertainties and assumptions that are difficult to predict; therefore, actual results may differ materially from those expressed or forecasted in any forward-looking statements. The risks and uncertainties include those noted in "Risk Factors" above and in the documents incorporated by reference.

Readers of this prospectus and the documents incorporated by reference into this prospectus are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date on which they are made. We undertake no obligation to update publicly any forward-looking statements, whether as a result of new information, future events or otherwise, except to the extent that we are required to do so by law. We also may make additional disclosures in our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K that we may file from time to time with the Securities and Exchange Commission, or SEC. Please also note that we provide a cautionary discussion of risks and uncertainties under the section entitled "Risk Factors" in our Annual Report on Form 10-K and Quarterly Reports on Form 10-Q. These are factors that we think could cause our actual results to differ materially from expected results. Other factors besides those listed here could also adversely affect us. This discussion is provided as permitted by the Private Securities Litigation Reform Act of 1995.

13

ISSUANCE OF COMMON STOCK TO THE SELLING STOCKHOLDERS

On December 24, 2003, we completed a financing pursuant to which we issued to the selling stockholders (i) \$35 million of Series B-1 Convertible Preferred Stock, which is convertible into Arena common stock at a fixed conversion price of \$7.50 per share, (ii) seven-year warrants to purchase up to 1,486,200 shares of Arena common stock at an exercise price of \$10.00 per share, and (iii) unit warrants giving such investors the right, and under certain conditions the obligation, for a period of approximately 16 months to purchase from us up to \$11.5 million of Series B-2 Convertible Preferred Stock and additional seven-year warrants to purchase up to 450,000 shares of our common stock at an exercise price of \$10.00 per share.

Pursuant to the registration rights agreement which we entered into in connection with the financing, we have filed a registration statement, of which this prospectus forms a part, in order to permit the selling stockholders to resell to the public the shares of common stock they have or may acquire pursuant the Series B Securities Purchase Agreement.

In addition, pursuant to our Non-Circumvention and Finder's Fee Agreement, dated as of December 10, 2003 (the "Finder's Agreement"), with Reedland Capital Partners, an Institutional Division of Financial West Group ("Reedland"), we agreed, among other things, to pay Reedland \$600,000 in cash and 45,000 shares of our common stock as well as to register for resale such shares.

USE OF PROCEEDS

The proceeds from the sale of the common stock under this prospectus will belong to the selling stockholders. While we will not receive any proceeds from this offering, if the warrants to purchase 1,486,200 shares of common stock, the unit warrants to purchase \$11,500,000 Series B-2 Convertible Preferred Stock and the related warrants to purchase 450,000 shares of common stock were all exercised, we will receive proceeds of \$30,862,000. If we do receive any proceeds from the exercise of the warrants, we will likely use such proceeds for working capital and general corporate purposes.

SELLING STOCKHOLDERS

The selling stockholders may sell up to 11,227,933 shares of our common stock pursuant to this prospectus. The shares of our common stock offered by this prospectus were issued or may be issued to the selling stockholders in connection with the financing transaction described above under "Issuance of Common Stock to the Selling Stockholders." Other than pursuant to the financing transaction documents and the Finder's Agreement, we have no other material relationship with the selling stockholders.

14

The following table sets forth information regarding beneficial ownership of our common stock by the selling stockholders as of January 31, 2004. There were 25,559,022 shares of our common stock outstanding as of January 31, 2004.

| Name | Shares of Common Stock Beneficially Owned Before Offering | | Number of Shares of Common Stock Offered Hereby | Shares of Common Stock Beneficially Owned Following the Offering(2) | |
|--------------------------------|---|---------------|---|---|------------|
| | Number | % of Class(1) | | Number | % of Class |
| Mainfield Enterprises, Inc.(3) | 2,666,667 | 9.4%(5) | 6,389,988 | 0 | |
| Smithfield Fiduciary LLC(4) | 2,000,000 | 7.3%(5) | 4,792,945 | 0 | |
| Reedland Capital Partners | 45,000 | * | 45,000 | 0 | |

*
Less than 1%.

(1) For the purposes of calculating the percent of class beneficially owned by a holder, shares of common stock which may be issued to that holder within 60 days of January 31, 2004, are deemed to be outstanding.

(2) We do not know when or in what amounts a selling stockholder may offer shares for sale. The selling stockholders may choose not to sell any of the shares offered by this prospectus. This table assumes the sale by the selling stockholders of all of the shares of common stock available for resale under this prospectus.

(3) Pursuant to an investment management agreement, Avi Vigder has voting discretion and investment control over the shares held by Mainfield Enterprises, Inc. Avi Vigder disclaims beneficial ownership of such shares.

(4) Highbridge Capital Management, LLC, is the trading manager of Smithfield Fiduciary LLC and consequently has voting control and investment discretion over securities held by Smithfield Fiduciary LLC. Glenn Dubin and Henry Swieca control Highbridge Capital Management, LLC. Each of Highbridge Capital Management LLC, Glenn Dubin and Henry Swieca disclaims beneficial ownership of the securities held by Smithfield Fiduciary LLC.

(5) The holder disclaims beneficial ownership of our common stock that exceeds 4.999% of our outstanding common stock. Under the terms of the Series B Convertible Preferred Stock, the number of shares of our common stock that may be acquired by the holder upon any conversion of the preferred stock is limited to the extent necessary to ensure that, following such conversion, the total number of shares of our common stock then beneficially owned by such holder and its affiliates and any other persons whose beneficial ownership of our common stock would be aggregated with the holders for purposes of Section 13(d) of the Securities Exchange of 1934 does not exceed 4.999% of our common stock (including shares of our common stock issuable upon such conversion). The

holder can waive this provision or increase (but not to more than 9.999%) or decrease this percentage by giving us written notice, but (i) any such waiver or increase will not be effective until the 61st day after such notice is delivered to the us, and (ii) any such waiver or increase or decrease will apply only to such holder. The 4.999% limitation is disregarded for purposes of this table.

This table excludes the shares of our common stock that the holder may acquire by exercising warrants and unit warrants that were issued in the Series B Convertible Preferred Stock financing transaction. The warrants provide that the number of shares of our common stock that may be

15

acquired by the holder upon any exercise of the warrant is limited to the extent necessary to ensure that, following such exercise, the total number of shares of our common stock then beneficially owned by such holder and its affiliates and any other persons whose beneficial ownership of our common stock would be aggregated with the holders for purposes of Section 13(d) of the Securities Exchange of 1934 does not exceed 4.999% of our common stock (including shares of our common stock issuable upon such exercise). The holder can waive this limitation on exercise or increase or decrease the 4.999% by giving us written notice, but (i) any such waiver or increase will not be effective until the 61st day after such notice is delivered to us and (ii) any such waiver or increase or decrease will apply only to such holder and not to any other holder of warrants.

PLAN OF DISTRIBUTION

The selling stockholders may, from time to time, sell any or all of their shares of common stock on any stock exchange, market or trading facility on which the shares are traded or in private transactions. These sales may be at fixed or negotiated prices. The selling stockholders may use any one or more of the following methods when selling shares:

ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;

block trades in which the broker-dealer will attempt to sell the shares as agent but may position and resell a portion of the block as principal to facilitate the transaction;

purchases by a broker-dealer as principal and resale by the broker-dealer for its account;

an exchange distribution in accordance with the rules of the applicable exchange;

privately negotiated transactions;

short sales;

broker-dealers may agree with the selling stockholders to sell a specified number of such shares at a stipulated price per share;

a combination of any such methods of sale; and

any other method permitted pursuant to applicable law.

The selling stockholders may also sell shares under Rule 144 under the Securities Act, if available, rather than under this prospectus.

The selling stockholders may also engage in short sales against the box, puts and calls and other transactions in our securities or derivatives of our securities and may sell or deliver shares in connection with these trades.

Edgar Filing: ARENA PHARMACEUTICALS INC - Form S-3

Broker-dealers engaged by the selling stockholders may arrange for other brokers-dealers to participate in sales. Broker-dealers may receive commissions or discounts from the selling stockholders (or, if any broker-dealer acts as agent for the purchaser of shares, from the purchaser) in amounts to be negotiated. The selling stockholders do not expect these commissions and discounts to exceed what is customary in the types of transactions involved. Any profits on the resale of shares of common stock by a broker-dealer acting as principal might be deemed to be underwriting discounts or commissions under the Securities Act. Discounts, concessions, commissions and similar selling expenses, if any, attributable to the sale of shares will be borne by a selling stockholder. The selling stockholders may agree to indemnify any agent, dealer or broker-dealer that participates in transactions involving sales of the shares if liabilities are imposed on that person under the Securities Act.

The selling stockholders may from time to time pledge or grant a security interest in some or all of the shares of common stock owned by them and, if they default in the performance of their secured

16

obligations, the pledgees or secured parties may offer and sell the shares of common stock from time to time under this prospectus after we have filed an amendment to this prospectus under Rule 424(b)(3) or other applicable provision of the Securities Act of 1933 amending the list of selling stockholders to include the pledgee, transferee or other successors in interest as selling stockholders under this prospectus.

The selling stockholders also may transfer the shares of common stock in other circumstances, in which case the transferees, pledgees or other successors in interest will be the selling beneficial owners for purposes of this prospectus and may sell the shares of common stock from time to time under this prospectus after we have filed an amendment to this prospectus under Rule 424(b)(3) or other applicable provision of the Securities Act of 1933 amending the list of selling stockholders to include the pledgee, transferee or other successors in interest as selling stockholders under this prospectus.

The selling stockholders and any broker-dealers or agents that are involved in selling the shares of common stock may be deemed to be "underwriters" within the meaning of the Securities Act in connection with such sales. In such event, any commissions received by such broker-dealers or agents and any profit on the resale of the shares of common stock purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act.

We are required to pay all fees and expenses incident to the registration of the shares of common stock to the selling stockholders, other than the fees and disbursements of counsel, brokerage fees or underwriting fees. We have agreed to indemnify the selling stockholders against certain losses, claims, damages and liabilities, including liabilities under the Securities Act.

The selling stockholders have advised us that they have not entered into any agreements, understandings or arrangements with any underwriters or broker-dealers regarding the sale of their shares of common stock, nor is there an underwriter or coordinating broker acting in connection with a proposed sale of shares of common stock by any selling stockholder. If we are notified by any selling stockholder that any material arrangement has been entered into with a broker-dealer for the sale of shares of common stock, if required, we will file a supplement to this prospectus. If the selling stockholders use this prospectus for any sale of the shares of common stock, they will be subject to the prospectus delivery requirements of the Securities Act.

The anti-manipulation rules of Regulation M under the Securities Exchange Act of 1934 may apply to sales of our common stock and activities of the selling stockholders.

VALIDITY OF COMMON STOCK

Milbank, Tweed, Hadley & McCloy LLP, New York, New York, will pass on the validity of the authorization and issuance of the shares of common stock offered by this prospectus.

EXPERTS

Ernst & Young LLP, independent auditors, have audited our consolidated financial statements included in our Annual report on Form 10-K for the year ended December 31, 2002, as set forth in their report, which is incorporated by reference in this prospectus and elsewhere in the registration statement. Our financial statements are incorporated by reference in reliance on Ernst & Young LLP's report, given on their authority as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and special reports, proxy statements and other information with the SEC. You may read and copy any document we file at the SEC's public reference room at 450 Fifth Street, N.W., Washington, D.C., 20549. Please call the SEC at 1-800-SEC-0330 for further information

17

on the operation of the public reference room. Our SEC filings are also available to the public at the SEC's website at <http://www.sec.gov>.

The SEC allows us to "incorporate by reference" the information we file with them, which means that we can disclose important information to you by referring you to those documents instead of having to repeat the information in this prospectus. The information incorporated by reference is considered to be part of this prospectus, and later information that we file with the SEC will automatically update and supersede this information. We incorporate by reference the documents listed below and any future filings made with the SEC under Sections 13(a), 13(c), 14, or 15(d) of the Securities Exchange Act of 1934 until the selling stockholders sell all the shares:

Our annual report on Form 10-K for the fiscal year ended December 31, 2002 (filed on March 28, 2003);

Our quarterly report on Form 10-Q for the (i) quarter ended March 31, 2003 (filed on May 14, 2003), (ii) quarter ended June 30, 2003 (filed on August 13, 2003) and (iii) quarter ended September 30, 2003 (filed on November 12, 2003);

Our current reports on Form 8-K filed on January 21, 2003, April 23, 2003, August 12, 2003, October 22, 2003, December 17, 2003, December 30, 2003, January 6, 2004, and January 20, 2004; and

A description of the amendment to our Stockholders Rights Plan on Form 8-A/A filed on December 30, 2003.

The description of our common stock contained in our registration statement on Form 8-A, filed on July 26, 2000, including any amendment or reports filed for the purpose of updating such description.

You can request a copy of these filings, at no cost, by writing or telephoning us at the following address or telephone number:

Arena Pharmaceuticals, Inc.
6166 Nancy Ridge Drive
San Diego, California 92121
(858) 453-7200
Attn: Investor Relations

You should rely only on the information contained in this prospectus or any supplement and in the documents incorporated by reference. We have not authorized anyone else to provide you with different information. You should not assume that the information in this prospectus or any supplement or in the documents incorporated by reference is accurate on any date other than the date on the front of those documents.

This prospectus is part of a registration statement we filed with the SEC (Registration No. 333-[]). That registration statement and the exhibits filed along with the registration statement contain more information about the shares sold by the selling stockholders. Because information about documents referred to in this prospectus is not always complete, you should read the full documents which are filed as exhibits to the registration statement. You may read and copy the full registration statement and its exhibits at the SEC's public reference rooms or their website.

18

11,227,933 SHARES OF COMMON STOCK

ARENA PHARMACEUTICALS, INC.

PROSPECTUS

[_____], 2004

No dealer, salesperson or other individual has been authorized to give any information or to make any representations other than contained or incorporated by reference in this prospectus, and if given or made, such information or representations must not be relied upon as having been authorized by Arena. This prospectus does not constitute an offer or solicitation by anyone in any jurisdiction in which such offer or solicitation is not authorized or in which the person making such offer is not qualified to do so or to anyone to whom it is unlawful to make such offer or solicitation. Neither the delivery of this prospectus nor any sale made hereunder shall, under any circumstance, create any implication that there has not been any change in the affairs of Arena since the date hereof.

PART II

INFORMATION NOT REQUIRED IN THE PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution.

The following sets forth the estimated costs and expenses, all of which shall be borne by the Registrant, in connection with the offering of the securities pursuant to this Registration Statement:

| | |
|-------------------------|------------|
| Registration Fee | \$ 8,438 |
| Legal Fees and Expenses | \$ 10,000* |
| Accounting Fees | \$ 20,000* |
| Printer Fees | \$ 2,500* |
| | <hr/> |
| Total | \$ 40,938* |
| | <hr/> |

*

Estimated

Item 15. Indemnification of Directors and Officers.

The By-laws of the Registrant provide for indemnification of the Registrant's directors and officers to the fullest extent permitted by law. Insofar as indemnification for liabilities under the Securities Act may be permitted to directors, officers or controlling persons of the Registrant pursuant to the Registrant's Certificate of Incorporation, By-laws and the Delaware General Corporation Law (the "DGCL"), the Registrant has been informed that in the opinion of the SEC such indemnification is against public policy as expressed in such Act and is therefore unenforceable.

Section 102(b)(7) of the DGCL provides that a certificate of incorporation may include a provision which eliminates or limits the personal liability of a director to the corporation or its stockholders for monetary damages for breach of fiduciary duty as a director, except for liability (i) for any breach of the director's duty of loyalty to the company or its stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) under Section 174 of the DGCL, relating to prohibited dividends or distributions or the repurchase or redemption of stock or (iv) for any transaction from which the director derives an improper personal benefit. The Registrant's Certificate of Incorporation includes such a provision. As a result of this provision, the Registrant and its stockholders may be unable to obtain monetary damages from a director for breach of his or her duty of care.

Item 16. Exhibits.

| Exhibits: | Description |
|-----------|---|
| 3.1 | Certificate of Designations of the Series B Convertible Preferred Stock (Filed as Exhibit 3.1 to Form 8-K filed with the Commission on December 30, 2003 and incorporated herein by reference). |
| 4.1 | Amendment to Rights Agreement dated December 24, 2003 (Filed as Exhibit 4.1 to Form 8-K filed with the Commission on December 30, 2003 and incorporated herein by reference). |
| 5.1 | Opinion of Milbank, Tweed, Hadley & McCloy LLP. |
| 10.1 | Securities Purchase Agreement dated December 24, 2003 among the Company and the investor signatories thereto (Filed as Exhibit 10.1 to Form 8-K filed with the Commission on December 30, 2003 and incorporated herein by reference). |
| 10.2 | Registration Rights Agreement dated December 24, 2003 among the Company and the investor signatories thereto (Filed as Exhibit 10.2 to Form 8-K filed with the Commission on December 30, 2003 and incorporated herein by reference). |
| 10.3 | Form of Warrant dated December 24, 2003 (Filed as Exhibit 10.3 to Form 8-K filed with the Commission on December 30, 2003 and incorporated herein by reference). |
| 10.4 | Form of Unit Warrant dated December 24, 2003 (Filed as Exhibit 10.4 to Form 8-K filed with the Commission on December 30, 2003 and incorporated herein by reference). |
| 10.5 | Non-Circumvention and Finder's Fee Agreement dated as of December 10, 2003 with Reedland Capital Partners. |
| 23.1 | Consent of Milbank, Tweed, Hadley & McCloy LLP (included in Exhibit 5.1 hereof). |
| 23.2 | Consent of Ernst & Young LLP, Independent Auditors. |
| 24.1 | Power of Attorney (included on this signature page to this Registration Statement). |

Item 17. Undertakings.

- (a) The undersigned registrant hereby undertakes:
- (1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:
- (i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;
- (ii) To reflect in the prospectus any facts or events arising after the effective date of this registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement;

Edgar Filing: ARENA PHARMACEUTICALS INC - Form S-3

(iii)

To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement.

Provided, however, that paragraphs (a)(1)(i) and (a)(1)(ii) of this section do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed with or furnished to the Commission by the registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement.

(2)

That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of the securities at that time shall be deemed to be the initial bona fide offering thereof.

(3)

To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(b)

The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to section 13(a) or section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement 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.

(c)

Insofar as indemnification for liabilities arising under the Securities Act of 1933 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 of 1933 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 of 1933 and will be governed by the final adjudication of such issue.

II-3

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of San Diego, State of California, on February 5, 2004.

ARENA PHARMACEUTICALS, INC.

By: /s/ JACK LIEF

Jack Lief, President and Chief Executive
Officer

POWER OF ATTORNEY

We, the undersigned directors and officers of Arena Pharmaceuticals, Inc., do hereby constitute and appoint Jack Lief and Steven W. Spector, or either of them, our true and lawful attorneys-in-fact and agents, each with full power to sign for us or any of us in our names and in any and all capacities, any and all amendments (including post-effective amendments) to this Registration Statement, or any related registration statement that is to be effective upon filing pursuant to Rule 462(b) under the Securities Act of 1933, as amended, and to file the same, with all

Edgar Filing: ARENA PHARMACEUTICALS INC - Form S-3

| Exhibits: | Description |
|-----------|---|
| 3.1 | Certificate of Designations of the Series B Convertible Preferred Stock (Filed as Exhibit 3.1 to Form 8-K filed with the Commission on December 30, 2003 and incorporated herein by reference). |
| 4.1 | Amendment to Rights Agreement dated December 24, 2003 (Filed as Exhibit 4.1 to Form 8-K filed with the Commission on December 30, 2003 and incorporated herein by reference). |
| 5.1 | Opinion of Milbank, Tweed, Hadley & McCloy LLP. |
| 10.1 | Securities Purchase Agreement dated December 24, 2003 among the Company and the investor signatories thereto (Filed as Exhibit 10.1 to Form 8-K filed with the Commission on December 30, 2003 and incorporated herein by reference). |
| 10.2 | Registration Rights Agreement dated December 24, 2003 among the Company and the investor signatories thereto (Filed as Exhibit 10.2 to Form 8-K filed with the Commission on December 30, 2003 and incorporated herein by reference). |
| 10.3 | Form of Warrant dated December 24, 2003 (Filed as Exhibit 10.3 to Form 8-K filed with the Commission on December 30, 2003 and incorporated herein by reference). |
| 10.4 | Form of Unit Warrant dated December 24, 2003 (Filed as Exhibit 10.4 to Form 8-K filed with the Commission on December 30, 2003 and incorporated herein by reference). |
| 10.5 | Non-Circumvention and Finder's Fee Agreement dated as of December 10, 2003 with Reedland Capital Partners. |
| 23.1 | Consent of Milbank, Tweed, Hadley & McCloy LLP (included in Exhibit 5.1 hereof). |
| 23.2 | Consent of Ernst & Young LLP, Independent Auditors. |
| 24.1 | Power of Attorney (included on this signature page to this Registration Statement). |

QuickLinks

[TABLE OF CONTENTS](#)

[ABOUT ARENA PHARMACEUTICALS, INC.](#)

[RISK FACTORS](#)

[FORWARD-LOOKING STATEMENTS](#)

[ISSUANCE OF COMMON STOCK TO THE SELLING STOCKHOLDERS](#)

[USE OF PROCEEDS](#)

[SELLING STOCKHOLDERS](#)

[PLAN OF DISTRIBUTION](#)

[VALIDITY OF COMMON STOCK](#)

[EXPERTS](#)

[WHERE YOU CAN FIND MORE INFORMATION](#)

[PART II](#)

[INFORMATION NOT REQUIRED IN THE PROSPECTUS](#)

[Item 14. Other Expenses of Issuance and Distribution.](#)

[Item 15. Indemnification of Directors and Officers.](#)

[Item 16. Exhibits.](#)

[Item 17. Undertakings.](#)

[SIGNATURES](#)

[POWER OF ATTORNEY](#)

EXHIBIT INDEX