Mirati Therapeutics, Inc. Form SC 13G/A February 14, 2019 UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549
SCHEDULE 13G
Under the Securities Exchange Act of 1934
(Amendment No. 1)*
Mirati Therapeutics, Inc. (Name of Issuer)
Common Stock, par value \$0.001 per share (Title of Class of Securities)
60468T105 (CUSIP Number)
December 31, 2018 (Date of Event which Requires Filing of this Statement)
Check the appropriate box to designate the rule pursuant to which this Schedule is filed:
[] Rule 13d-1(b)
[x] Rule 13d-1(c)
[] Rule 13d-1(d)
* The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect

The information required in the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

^{*} The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter the disclosures provided in a prior cover page.

Names of Reporting Persons. I.R.S. Identification Nos. of above persons (entities only)					
1 Cormorant Global Healthcare Master Fund, LP					
2 <i>C</i> l1- 4l	A constitute Description Manufacture of a Constitution (Constitution)				
2Check the	e Appropriate Box if a Member of a Group (See Instructions)				
(a)					
(b)	[x]				
3 SEC Use (Only				
Citizenshi	ip or Place of Organization.				
⁴ Cayman Is	Islands				
	5 Sole Voting Power				
	0 shares				
	6 Shared Voting Power				
-	1,623,967 shares				
	y Refer to Item 4 below.				
Owned by Each	7 Sole Dispositive Power				
Reporting Person With	th 0 shares				
	8 Shared Dispositive Power				
	1,623,967 shares				
	Refer to Item 4 below.				
∆ aareasi	ate Amount Beneficially Owned by Each Reporting Person				
9 1,623,967 shares					
Refer to	Item 4 below.				
10Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions) [] N/A					

Percent of Class Represented by Amount in Row (9)*

114.72%

Refer to Item 4 below.

Type of Reporting Person (See Instructions)

¹²PN (Partnership)

I.R.S. Iden	Reporting Persons. ntification Nos. of above persons (entities only)			
1 Cormorant Global Healthcare GP, LLC				
2Check the	Appropriate Box if a Member of a Group (See Instructions)			
(a)	[]			
(b)	[x]			
3 SEC Use (Only			
Citizenshi	p or Place of Organization.			
⁴ Delaware				
	5 Sole Voting Power			
	0 shares			
	6 Shared Voting Power			
Number	1,623,967 shares			
•	Refer to Item 4 below.			
Owned by Each	7 Sole Dispositive Power			
Reporting Person With	n O shares			
	8 Shared Dispositive Power			
	1,623,967 shares			
	Refer to Item 4 below.			
Aggregat	te Amount Beneficially Owned by Each Reporting Person			
9 1,623,96	7 shares			
Refer to 1	Item 4 below.			

10Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions) [] N/A

Percent of Class Represented by Amount in Row (9)*

114.72%

Refer to Item 4 below.

Type of Reporting Person (See Instructions)

12 OO (Limited Liability Company)

	tification Nos. of above persons (entities only)
1 Cormorant	Asset Management, LP
2Check the	Appropriate Box if a Member of a Group (See Instructions)
(a)	
(b)	[x]
3 SEC Use C	Only
Citizenship	o or Place of Organization.
⁴ Delaware	
	5 Sole Voting Power
	0 shares
	6 Shared Voting Power
•	1,751,699 shares
	Refer to Item 4 below.
Owned by Each	7 Sole Dispositive Power
Reporting Person With	0 shares
	8 Shared Dispositive Power
	1,751,699 shares
	Refer to Item 4 below.
Aggregat	e Amount Beneficially Owned by Each Reporting Person
9 1,751,699	9 shares
Refer to I	tem 4 helow

Names of Reporting Persons.

10Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions) [] N/A

Percent of Class Represented by Amount in Row (9)*

115.10%

Refer to Item 4 below.

Type of Reporting Person (See Instructions)

12 OO (Limited Liability Company)

I.R.S. Iden	attification Nos. of above persons (entities only)
Bihua Che	n
2Check the	Appropriate Box if a Member of a Group (See Instructions)
(a)	[]
(b)	[x]
3SEC Use (Only
Citizenshij	p or Place of Organization.
⁴ United Sta	ites
	5 Sole Voting Power
	0 shares
	6 Shared Voting Power
Number of Shares	1,751,699 shares
	Refer to Item 4 below.
Each Reporting	7 Sole Dispositive Power
Person With	n 0 shares
	8 Shared Dispositive Power
	1,751,699 shares
	Refer to Item 4 below.
Aggregat	e Amount Beneficially Owned by Each Reporting Person
9 1,751,699	9 shares
Refer to 1	Item 4 below

Names of Reporting Persons.

10Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions) [] N/A

Percent of Class Represented by Amount in Row (9)*

115.10%

Refer to Item 4 below.

Type of Reporting Person (See Instructions)

12 IN (Individual)

Item 1.

(a) Name of Issuer

Mirati Therapeutics, Inc.

(b) Address of Issuer's Principal Executive Offices

9393 Towne Centre Drive, Suite 200 San Diego, California 92121

Item 2.

(a) Name of Person Filing

Cormorant Global Healthcare Master Fund, LP Cormorant Global Healthcare GP, LLC Cormorant Asset Management, LP Bihua Chen

(b) Address of Principal Business Office or, if none, Residence

200 Clarendon Street, 52nd Floor Boston, MA 02116

(c) Citizenship

Cormorant Global Healthcare Master Fund, LP - Cayman Islands Cormorant Global Healthcare GP, LLC - Delaware Cormorant Asset Management, LP - Delaware Bihua Chen - United States

(d) Title of Class of Securities

Common Stock

(e) CUSIP Number 60468T105

Item 3. If this statement is filed pursuant to §§240.13d-1(b) or 240.13d-2(b) or (c), check whether the person filing is a:

- (a) [] Broker or dealer registered under section 15 of the Act (15 U.S.C. 78o).
- (b) Bank as defined in section 3(a)(6) of the Act (15 U.S.C. 78c).
- (c) [] Insurance Company as defined in Section 3(a)(19) of the Act
- (d) [Investment company registered under section 8 of the Investment Company Act of 1940 (15 U.S.C. 80a-8).
- (e) [] An investment adviser in accordance with §240.13d-1(b)(1)(ii)(E);
- (f) [] An employee benefit plan or endowment fund in accordance with §240.13d-1(b)(1)(ii)(F);

- (g)[] A parent holding company or control person in accordance with § 240.13d-1(b)(1)(ii)(G);
- (h) A savings associations as defined in Section 3(b) of the Federal Deposit Insurance Act (12 U.S.C. 1813);
- (i) $[\]$ A church plan that is excluded from the definition of an investment company under section 3(c)(14) of the Investment Company Act of 1940 (15 U.S.C. 80a-3);
- (i) A non-U.S. institution in accordance with §240.13d–1(b)(1)(ii)(J);
- (k)[]Group, in accordance with §240.13d-1(b)(1)(ii)(K).

Item 4. Ownership***

Provide the following information regarding the aggregate number and percentage of the class of securities of the issuer identified in Item 1.

(a) Amount Beneficially Owned***

Cormorant Global Healthcare Master Fund, LP – 1,623,967 shares

Cormorant Global Healthcare GP, LLC – 1,623,967 shares

Cormorant Asset Management, LP – 1,751,699 shares

Bihua Chen – 1,751,699 shares

(b) Percent of Class

Cormorant Global Healthcare Master Fund, LP – 4.72%

Cormorant Global Healthcare GP, LLC - 4.72%

Cormorant Asset Management, LP – 5.10%

Bihua Chen - 5.10%

- Number of shares as to which such person has:
 - (i) sole power to vote or to direct the vote

Cormorant Global Healthcare Master Fund, LP - 0 shares

Cormorant Global Healthcare GP, LLC - 0 shares

Cormorant Asset Management, LP - 0 shares

Bihua Chen - 0 shares

(ii) shared power to vote or to direct the vote

Cormorant Global Healthcare Master Fund, LP – 1,623,967 shares

Cormorant Global Healthcare GP, LLC – 1,623,967 shares

Cormorant Asset Management, LP – 1,751,699 shares

Bihua Chen – 1,751,699 shares

(iii) sole power to dispose or to direct the disposition of

Cormorant Global Healthcare Master Fund, LP – 0 shares

Cormorant Global Healthcare GP, LLC – 0 shares

Cormorant Asset Management, LP – 0 shares

Bihua Chen – 0 shares

(iv) shared power to dispose or to direct the disposition of

Cormorant Global Healthcare Master Fund, LP - 1,623,967 shares Cormorant Global Healthcare GP, LLC - 1,623,967 shares Cormorant Asset Management, LP - 1,751,699 shares Bihua Chen - 1,751,699 shares

*** Shares reported herein for Cormorant Asset Management, LP represent shares which are beneficially Cormorant Global Healthcare Master Fund, LP (the "Master Fund"), as reported herein, and shares which are beneficially owned by Cormorant Private Healthcare Fund I, LP ("Fund I") and a managed account (the "Account"). Cormorant Global Healthcare GP, LLC serves as the general partner of the Master Fund. Cormorant Asset Management, LP serves as the investment manager to the Master Fund, Fund I and the Account. Bihua Chen serves as the managing member of Cormorant Global Healthcare GP, LLC and of the general partner of Cormorant Asset Management, LP. Each of the Reporting Persons disclaims beneficial ownership of the shares reported herein except to the extent of its or his pecuniary interest therein.

The percentages reported herein are calculated based upon (i) the statement in the Issuer's prospectus dated January 16, 2019, as filed with the Securities and Exchange Commission on such date, that there would be 34,128,944 shares of Common Stock of the Issuer outstanding immediately after public offering to which the prospectus related and (ii) the statement in the Issuer's press release dated January 22, 2019 that, at the closing of such offering, the Issuer sold an additional 241,935 shares of Common Stock in connection with the exercise in full by the underwriters of their option to purchase such additional shares.

Item 5. Ownership of Five Percent or Less of a Class

If this statement is being filed to report the fact that as of the date hereof the reporting person has ceased to be the beneficial owner of more than five percent of the class of securities, check the following [].

Item 6. Ownership of More than Five Percent on Behalf of Another Person

Not applicable.

Item 7. Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on By the Parent Holding Company

Not applicable.

Item 8. Identification and Classification of Members of the Group

Not applicable.

Item 9. Notice of Dissolution of Group

Not applicable.

Item 10. Certification

By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect.

Exhibits

I Joint Filing Agreement by and among the Reporting Persons, incorporated by reference to Exhibit 99.1 to the Schedule 13G filed by the Reporting Persons with the Securities and Exchange Commission on January 22, 2018.

SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this Statement is true, complete and correct.

February 14, 2019

CORMORANT GLOBAL HEALTHCARE MASTER FUND, LP

By: Cormorant Global Healthcare GP, LLC

its General Partner

By: /s/ Bihua Chen

Bihua Chen, Managing Member

CORMORANT GLOBAL HEALTHCARE GP, LLC

By: /s/ Bihua Chen

Bihua Chen, Managing Member

CORMORANT ASSET MANAGEMENT, LP

By: Cormorant Asset Management GP, LLC

its General Partner

By: /s/ Bihua Chen

Bihua Chen, Managing Member

/s/ Bihua Chen

Bihua Chen