

Mirati Therapeutics, Inc.
Form SC 13G
February 14, 2014

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

SCHEDULE 13G
Under the Securities Exchange Act of 1934
(Amendment No.)*

Mirati Therapeutics, Inc.
(Name of Issuer)

Common Stock, \$0.001 par value per share
(Title of Class of Securities)

60468T105
(CUSIP Number)

December 31, 2013
(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)

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 to the subject class of securities, and for any subsequent amendment containing information which would alter the disclosures provided in a prior cover page.

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).

CUSIP No. 60468T105

1. Names of reporting persons.

QVT Financial LP

I.R.S. Identification Nos. of above persons (entities only).

11-3694008

2. Check the appropriate box if a member of a group (see instructions)

(a) (b)

3. SEC use only

4. Citizenship or place of organization

Delaware

5. Sole voting power

Number of

shares

0

6. Shared voting power

beneficially

owned by

718,871

each

7. Sole dispositive power

reporting

person

0

8. Shared dispositive power

with:

718,871

9. Aggregate amount beneficially owned by each reporting person

718,871

10. Check if the aggregate amount in Row (9) excludes certain shares (see instructions) ..

11. Percent of class represented by amount in Row (9)

5.35%

12. Type of reporting person (see instructions)

PN

CUSIP No. 60468T105

1. Names of reporting persons.

QVT Financial GP LLC

I.R.S. Identification Nos. of above persons (entities only).

11-3694007

2. Check the appropriate box if a member of a group (see instructions)

(a) (b)

3. SEC use only

4. Citizenship or place of organization

Delaware

5. Sole voting power

Number of

shares 0

6. Shared voting power

beneficially

owned by 718,871

each 7. Sole dispositive power

reporting

person 0

8. Shared dispositive power

with:

718,871

9. Aggregate amount beneficially owned by each reporting person

718,871

10. Check if the aggregate amount in Row (9) excludes certain shares (see instructions) ..

11. Percent of class represented by amount in Row (9)

5.35%

12. Type of reporting person (see instructions)

OO

CUSIP No. 60468T105

1. Names of reporting persons.

QVT Associates GP LLC

I.R.S. Identification Nos. of above persons (entities only).

01-0798253

2. Check the appropriate box if a member of a group (see instructions)

(a) (b)

3. SEC use only

4. Citizenship or place of organization

Delaware

5. Sole voting power

Number of

shares 0

6. Shared voting power

beneficially

owned by 718,871

each 7. Sole dispositive power

reporting

person 0

8. Shared dispositive power

with:

718,871

9. Aggregate amount beneficially owned by each reporting person

718,871

10. Check if the aggregate amount in Row (9) excludes certain shares (see instructions) ..

11. Percent of class represented by amount in Row (9)

5.35%

12. Type of reporting person (see instructions)

OO

Item 1(a). Name of Issuer

Mirati Therapeutics, Inc. (the Issuer)

Item 1(b). Address of Issuer s Principal Executive Offices

The address of the Issuer s principal executive offices is:

9363 Towne Centre Drive, Suite 200, San Diego, California 92121, United States

Item 2(a). Name of Person Filing

Item 2(b). Address of Principal Business Office or, if none, Residence

Item 2(c). Citizenship

QVT Financial LP

1177 Avenue of the Americas, 9th Floor

New York, New York 10036

Delaware Limited Partnership

QVT Financial GP LLC

1177 Avenue of the Americas, 9th Floor

New York, New York 10036

Delaware Limited Liability Company

QVT Associates GP LLC

1177 Avenue of the Americas, 9th Floor

New York, New York 10036

Delaware Limited Liability Company

Item 2(d). Title of Class of Securities

Common stock, \$0.001 par value per share (the Common Stock).

Item 2(e). CUSIP Number

The CUSIP number of the Common Stock is 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 (15 U.S.C. 78c).
- (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);
- (j) " 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). If filing as a non-U.S. institution in accordance with §240.13d-1(b)(1)(ii)(J), please specify the type of institution: .

Item 4. Ownership.

- (a) Amount beneficially owned as of December 31, 2013:

QVT Financial LP (QVT Financial) is the investment manager for private investment funds (collectively, the Funds). The Funds aggregately own 718,871 shares of Common Stock. Accordingly, QVT Financial may be deemed to be the beneficial owner of an aggregate amount of 718,871 shares of Common Stock, consisting of the shares owned by the Funds.

QVT Financial GP LLC, as General Partner of QVT Financial, may be deemed to beneficially own the same number of shares of Common Stock reported by QVT Financial. QVT Associates GP LLC, as General Partner of the Funds, may be deemed to beneficially own the aggregate number of shares of Common Stock owned by the Funds, and accordingly, QVT Associates GP LLC may be deemed to be the beneficial owner of an aggregate amount of 718,871 shares of Common Stock.

The percentage disclosed in Item 11 of the Cover Pages for each reporting person is calculated on the basis of (i) 13,261,862 shares of Common Stock outstanding, as reported in the Issuer's Quarterly Report on Form 10-Q, for the quarter ended September 30, 2013, filed with the Securities and Exchange Commission on November 12, 2013 and (ii) 177,893 shares of Common Stock underlying the Issuer's warrants, pursuant to Rule 13d-3(d)(1)(i).

- (b) Percent of class:

See Item 11 of the Cover Pages to this Schedule 13G.

(c) Number of shares as to which the person has:

0 (i) Sole power to vote or to direct the vote

(ii) Shared power to vote or to direct the vote
See item (a) above.

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

0

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

See item (a) above.

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.

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.

Dated: February 14, 2014

QVT FINANCIAL LP

By QVT Financial GP LLC,

its General Partner

By: /s/ Tracy Fu

Name: Tracy Fu

Title: Managing Member

By: /s/ Meg Eisner

Name: Meg Eisner

Title: Authorized Signatory

QVT FINANCIAL GP LLC

By: /s/ Tracy Fu

Name: Tracy Fu

Title: Managing Member

By: /s/ Meg Eisner

Name: Meg Eisner

Title: Authorized Signatory

QVT ASSOCIATES GP LLC

By: /s/ Tracy Fu

Name: Tracy Fu

Title: Managing Member

By: /s/ Meg Eisner

Name: Meg Eisner

Title: Authorized Signatory

EXHIBIT A

JOINT FILING AGREEMENT

The undersigned hereby agree that the statement on Schedule 13G filed herewith (and any amendments thereto) signed by each of the undersigned shall be filed on behalf of each of the undersigned pursuant to and in accordance with the provisions of Rule 13d-1(k) under the Securities Exchange Act of 1934, as amended.

Dated: February 14, 2014

QVT FINANCIAL LP

By QVT Financial GP LLC,

its General Partner

By: /s/ Tracy Fu

Name: Tracy Fu

Title: Managing Member

By: /s/ Meg Eisner

Name: Meg Eisner

Title: Authorized Signatory

QVT FINANCIAL GP LLC

By: /s/ Tracy Fu

Name: Tracy Fu

Title: Managing Member

By: /s/ Meg Eisner

Name: Meg Eisner

Title: Authorized Signatory

QVT ASSOCIATES GP LLC

By: /s/ Tracy Fu

Name: Tracy Fu

Title: Managing Member

By: /s/ Meg Eisner

Name: Meg Eisner

Title: Authorized Signatory