Mirati Therapeutics, Inc. Form SC 13D/A September 18, 2015

SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, DC 20549

SCHEDULE 13D

Under the Securities Exchange Act of 1934

(Amendment No. 2)

Mirati Therapeutics, Inc.

(Name of Issuer)

Common Stock, \$0.001 par value

(Title of Class of Securities)

60468T105

(CUSIP Number)

David A. Brown

Alston & Bird LLP

950 F Street, N.W.

Washington, DC 20004-1404

(202) 756-3463

(Name, Address and Telephone Number of Person Authorized to Receive Notices and Communications)

September 16, 2015

(Date of Event Which Requires Filing of this Statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition that is the subject of this Schedule 13D, and is filing this schedule because of §§ 240.13d-1(e), 240.13d-1(f) or 240.13d-1(g), check the following box ".

CUSIP No. 60468T105 SCHEDULE 13D/A Page 2 1 NAME OF REPORTING PERSONS Boxer Capital, LLC 2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (See Instructions) (b) " (a) x 3 SEC USE ONLY 4 SOURCE OF FUNDS (See Instructions) WC 5 CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e) 6 CITIZENSHIP OR PLACE OF ORGANIZATION Delaware NUMBER OF 7 SOLE VOTING POWER **SHARES BENEFICIALLY** 0 8 SHARED VOTING POWER OWNED BY **EACH** 2,213,012* **REPORTING** 9 SOLE DISPOSITIVE POWER **PERSON** WITH 0 10 SHARED DISPOSITIVE POWER

2,213,012*

- 11 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON
 - 2,213,012*
- 12 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (See Instructions)
- 13 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)
 - 11.7%**
- 14 TYPE OF REPORTING PERSON (See Instructions)

OO

- * This number includes 189,780 shares of common stock that Boxer Capital has the right to acquire pursuant to the Boxer 2012 Warrant.
- ** Based on 18,865,914 shares of common stock outstanding which is the sum of (i) 18,597,948 shares of common stock reported to be outstanding immediately after the September 2015 Offering (defined below) as described in the prospectus of Mirati Therapeutics, Inc. (the Issuer), filed pursuant to Rule 424(b)(4) with the SEC on September 16, 2015, (ii) 189,780 shares of common stock, which Boxer Capital currently has the right to acquire pursuant to the Boxer 2012 Warrant (as defined below), and (iii) 78,186 shares of common stock, which MVA Investors currently has the right to acquire pursuant to the MVA 2012 Warrant (as defined below).

CUSIP No. 60468T105 SCHEDULE 13D/A Page 3 1 NAME OF REPORTING PERSONS Boxer Asset Management Inc. 2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (See Instructions) (b) " (a) x 3 SEC USE ONLY 4 SOURCE OF FUNDS (See Instructions) WC 5 CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e) 6 CITIZENSHIP OR PLACE OF ORGANIZATION Bahamas NUMBER OF 7 SOLE VOTING POWER **SHARES BENEFICIALLY** 0 8 SHARED VOTING POWER OWNED BY **EACH** 2,213,012* **REPORTING** 9 SOLE DISPOSITIVE POWER **PERSON** WITH 0 10 SHARED DISPOSITIVE POWER

2,213,012*

- 11 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON
 - 2,213,012*
- 12 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (See Instructions)
- 13 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)
 - 11.7%**
- 14 TYPE OF REPORTING PERSON (See Instructions)

CO

- * This number includes 189,780 shares of common stock that Boxer Capital has the right to acquire pursuant to the Boxer 2012 Warrant.
- ** Based on 18,865,914 shares of common stock outstanding which is the sum of (i) 18,597,948 shares of common stock reported to be outstanding immediately after the September 2015 Offering as described in the prospectus of the Issuer, filed pursuant to Rule 424(b)(4) with the SEC on September 16, 2015, (ii) 189,780 shares of common stock, which Boxer Capital currently has the right to acquire pursuant to the Boxer 2012 Warrant, and (iii) 78,186 shares of common stock, which MVA Investors currently has the right to acquire pursuant to the MVA 2012 Warrant.

CUSIP No. 60468T105 SCHEDULE 13D/A Page 4 1 NAME OF REPORTING PERSONS Berkley Capital Management Ltd. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (See Instructions) 2 (b) " (a) x 3 SEC USE ONLY 4 SOURCE OF FUNDS (See Instructions) WC 5 CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e) 6 CITIZENSHIP OR PLACE OF ORGANIZATION Bahamas NUMBER OF 7 SOLE VOTING POWER **SHARES BENEFICIALLY** 0 8 SHARED VOTING POWER OWNED BY **EACH** 522,500 9 SOLE DISPOSITIVE POWER **REPORTING PERSON** WITH 0 10 SHARED DISPOSITIVE POWER

522,500

- 11 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON
 - 522,500
- 12 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (See Instructions)
- 13 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)
 - 2.8%*
- 14 TYPE OF REPORTING PERSON (See Instructions)

CO

* Based on 18,865,914 shares of common stock outstanding which is the sum of (i) 18,597,948 shares of common stock reported to be outstanding immediately after the September 2015 Offering as described in the prospectus of the Issuer, filed pursuant to Rule 424(b)(4) with the SEC on September 16, 2015, (ii) 189,780 shares of common stock, which Boxer Capital currently has the right to acquire pursuant to the Boxer 2012 Warrant, and (iii) 78,186 shares of common stock, which MVA Investors currently has the right to acquire pursuant to the MVA 2012 Warrant.

CUSIP No. 60468T105 SCHEDULE 13D/A Page 5 1 NAME OF REPORTING PERSONS MVA Investors, LLC 2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (See Instructions) (b) " (a) x 3 SEC USE ONLY 4 SOURCE OF FUNDS (See Instructions) WC 5 CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e) 6 CITIZENSHIP OR PLACE OF ORGANIZATION Delaware NUMBER OF 7 SOLE VOTING POWER **SHARES BENEFICIALLY** 507,526* 8 SHARED VOTING POWER OWNED BY **EACH** 0 9 SOLE DISPOSITIVE POWER **REPORTING PERSON** WITH 507,526* 10 SHARED DISPOSITIVE POWER

0

11 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

507,526*

- 12 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (See Instructions)
- 13 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)
 - 2.7%**
- 14 TYPE OF REPORTING PERSON (See Instructions)

OO

- * This number includes 78,186 shares of common stock that MVA Investors, LLC has the right to acquire pursuant to the MVA 2012 Warrant.
- ** Based on 18,865,914 shares of common stock outstanding which is the sum of (i) 18,597,948 shares of common stock reported to be outstanding immediately after the September 2015 Offering as described in the prospectus of the Issuer, filed pursuant to Rule 424(b)(4) with the SEC on September 16, 2015, (ii) 189,780 shares of common stock, which Boxer Capital currently has the right to acquire pursuant to the Boxer 2012 Warrant, and (iii) 78,186 shares of common stock, which MVA Investors currently has the right to acquire pursuant to the MVA 2012 Warrant.

CUSIP No. 60468T105 SCHEDULE 13D/A Page 6 1 NAME OF REPORTING PERSONS Joe Lewis 2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (See Instructions) (b) " (a) x 3 SEC USE ONLY 4 SOURCE OF FUNDS (See Instructions) PF 5 CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e) 6 CITIZENSHIP OR PLACE OF ORGANIZATION United Kingdom NUMBER OF 7 SOLE VOTING POWER **SHARES BENEFICIALLY** 0 8 SHARED VOTING POWER OWNED BY **EACH** 2,735,512* **REPORTING** 9 SOLE DISPOSITIVE POWER **PERSON** WITH 0 10 SHARED DISPOSITIVE POWER

2,735,512*

- 11 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON
 - 2,735,512*
- 12 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (See Instructions)
- 13 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)
 - 14.5%**
- 14 TYPE OF REPORTING PERSON (See Instructions)

IN

- * This number includes 189,780 shares of common stock that Boxer Capital has the right to acquire pursuant to the Boxer 2012 Warrant.
- ** Based on 18,865,914 shares of common stock outstanding which is the sum of (i) 18,597,948 shares of common stock reported to be outstanding immediately after the September 2015 Offering as described in the prospectus of the Issuer, filed pursuant to Rule 424(b)(4) with the SEC on September 16, 2015, (ii) 189,780 shares of common stock, which Boxer Capital currently has the right to acquire pursuant to the Boxer 2012 Warrant, and (iii) 78,186 shares of common stock, which MVA Investors currently has the right to acquire pursuant to the MVA 2012 Warrant.

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This Amendment No. 2 (Amendment No. 2) amends and supplements the statement on Schedule 13D filed on November 4, 2013 (the Original Filing) by Boxer Capital, LLC (Boxer Capital), Boxer Asset Management Inc. (Boxer Management), MVA Investors, LLC (MVA Investors) and Joe Lewis, as amended by Amendment No. 1 filed on February 2, 2015 (Amendment No. 1). Amendment No. 1 was an original filing for Berkley Capital Management Ltd. (Berkley Capital, together with Boxer Capital, Boxer Management, MVA Investors and Berkley Capital, the Reporting Persons). The Original Filing remains in effect except to the extent that it is amended, restated or superseded by information contained in this Amendment No. 2. Capitalized terms used and not defined in this Amendment No. 2 have the meanings set forth in the Original Filing, as amended.

Item 3. Source and Amount of Funds or Other Consideration.

Item 3 is amended and restated in its entirety as follows:

The aggregate purchase price of the Common Stock purchased and currently owned by the Reporting Persons is \$32,555,652. The source of the funding for the purchases of the Common Stock was the general working capital of Boxer Capital, Berkley Capital and MVA Investors.

Item 4. Purpose of Transaction.

Item 4 is amended to add the following:

On September 16, 2015, Boxer Capital and Berkley Capital each agreed to purchase 22,500 shares of Common Stock in the Issuer's secondary registered offering at \$45.00 per share (the September 2015 Offering). The September 2015 Offering is expected to close on September 21, 2015. The Reporting Persons acquired their equity positions in the September 2015 Offering for investment purposes. On September 17, 2015, Boxer Capital and MVA Investors sold in a private transaction to an unrelated third party the 2011 Warrants to purchase 272,882 shares of Common Stock and 40,874 shares of Common Stock, respectively, at a purchase price of \$37.26 per warrant. The 2011 Warrants were previously acquired by Boxer Capital and MVA Investors in the 2011 Private Placement.

Item 5. Interest in Securities of the Issuer.

Item 5 is amended and restated in its entirety as follows:

All percentages are based on 18,865,914 shares of Common Stock outstanding which is the sum of (i) 18,597,948 shares of Common Stock reported to be outstanding immediately after the September 2015 Offering as described in the prospectus of the Issuer, filed pursuant to Rule 424(b)(4) with the SEC on September 16, 2015, (ii) 189,780 shares of Common Stock, which Boxer Capital currently has the right to acquire pursuant to the Boxer 2012 Warrant, and (iii) 78,186 shares of Common Stock, which MVA Investors currently has the right to acquire pursuant to the MVA 2012 Warrant.

(a) The Reporting Persons may be deemed to beneficially own, in the aggregate, 3,243,039 shares of Common Stock, representing 17.2% of the Issuer s outstanding Common Stock.

Boxer Capital and Boxer Management beneficially own 2,213,012 shares of Common Stock which represents 11.7% of the Issuer s outstanding Common Stock. Berkley Capital beneficially owns 522,500 shares of Common Stock which represents 2.8% of the Issuer s outstanding Common Stock. Joe Lewis beneficially owns 2,735,512 shares of Common Stock which represents 14.5% of the Issuer s outstanding Common Stock. MVA Investors beneficially owns 507,526

shares of Common Stock which represents 2.7% of the Issuer s outstanding Common Stock.

The 2012 Warrants represent a right for Boxer Capital and MVA Investors to purchase 189,780 and 78,186 shares of Common Stock, respectively, at an exercise price of \$7.86 (subject to adjustment). The 2012 Warrants are only exercisable to the extent that the holders thereof and their affiliates and joint actors would beneficially own no more than 19.99% of the outstanding Common Stock after exercise.

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(b) With respect to any rights or powers to vote, or to direct the vote of, or to dispose of, or direct the disposition of, the Common Stock owned by the Reporting Persons:

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

MVA Investors has the sole power to vote the 507,526 shares of Common Stock it beneficially owns. Boxer Capital, Boxer Management, Berkley Capital and Joe Lewis do not have the sole power to vote or direct the vote of any shares of Common Stock.

(ii) Shared power to vote or to direct the vote:

Boxer Capital and Boxer Management have shared voting power with respect to the 2,213,012 shares of Common Stock they beneficially own. Berkley Capital has shared voting power with respect to the 522,500 shares of Common Stock it beneficially owns. Joe Lewis has shared voting power with respect to the 2,735,512 shares of Common Stock he beneficially owns. MVA Investors does not have shared power to vote or direct the vote of any shares of Common Stock.

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

MVA Investors has the sole power to dispose of the 507,526 shares of Common Stock it beneficially owns. Boxer Capital, Boxer Management, Berkley Capital and Joe Lewis do not have the sole power to dispose or direct the disposition of any shares of Common Stock.

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

Boxer Capital and Boxer Management have shared dispositive power with respect to the 2,213,012 shares of Common Stock they beneficially own. Berkley Capital has shared dispositive power with respect to the 522,500 shares of Common Stock it beneficially owns. Joe Lewis has shared voting power with respect to the 2,735,512 shares of Common Stock he beneficially owns. MVA Investors does not have shared power to dispose of or direct the disposition of any shares of Common Stock.

- (c) Other than the September 2015 Offering and sale of the 2011 Warrants as described in Item 4 herein, the Reporting Persons have not engaged in any transaction in the Common Stock in the past 60 days.
- (d) No other person has the right to receive or the power to direct the receipt of dividends, or proceeds of sale of such securities outlined in this Report.
- (e) Not applicable.

Item 6. Contracts, Arrangements, Understandings or Relationships with Respect to Securities of the Issuer.

Item 6 is amended and restated in its entirety as follows:

Except as otherwise described in the Original Filing and herein, there are no contracts, arrangements, understandings or relationships (legal or otherwise) among the persons named in Item 2 and between such persons and any person with respect to any securities of the Issuer, including, but not limited to, transfer or voting of any of the securities, finder s fees, joint ventures, loan or option arrangements, puts or calls, guarantees of profits, division of profits or loss,

or the giving or withholding of proxies.

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Item 7. Material to Be Filed as Exhibits.

Exhibit 1	Joint Filing Agreement, dated February 2, 2015, among Boxer Capital, Boxer Management, Berkley Capital, MVA Investors and Joe Lewis, which is incorporated herein by reference to Exhibit 1 to the Schedule 13D/A filed by the Reporting Persons on February 2, 2015
Exhibit 2	Form of Securities Purchase Agreement relating to the 2012 Private Placement, which is incorporated herein by reference to Exhibit 10.2 to the Form 10 filed by the Issuer on May 10, 2013
Exhibit 3	Form of Warrant Certificate issued in connection with the 2012 Private Placement, which is incorporated herein by reference to Exhibit 10.4 to the Form 10 filed by the Issuer on May 10, 2013

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.

BOXER CAPITAL, LLC

Date: September 18, 2015

By: /s/ Aaron Davis Name: Aaron Davis

Title: Authorized Signatory

BOXER ASSET MANAGEMENT INC.

By: /s/ Jefferson R. Voss Name: Jefferson R. Voss

Title: Director

BERKLEY CAPITAL MANAGEMENT LTD.

By: /s/ Jefferson R. Voss Name: Jefferson R. Voss Title: Authorized Signatory

MVA INVESTORS, LLC

By: /s/ Christopher Fuglesang Name: Christopher Fuglesang Title: Authorized Signatory

JOE LEWIS

By: /s/ Joe Lewis

Joe Lewis, Individually

EXHIBIT INDEX

Exhibit No.	Description
1	Joint Filing Agreement, dated February 2, 2015, among Boxer Capital, Berkley Capital, MVA Investors, Boxer Management and Joe Lewis, which is incorporated herein by reference to Exhibit 1 to the Schedule 13D/A filed by the Reporting Persons on February 2, 2015
2	Form of Securities Purchase Agreement relating to the 2012 Private Placement, which is incorporated herein by reference to Exhibit 10.2 to the Form 10 filed by the Issuer on May 10, 2013
3	Form of Warrant Certificate issued in connection with the 2012 Private Placement, which is incorporated herein by reference to Exhibit 10.4 to the Form 10 filed by the Issuer on May 10, 2013