Mirati Therapeutics, Inc. Form S-3MEF September 15, 2015

As filed with the Securities and Exchange Commission on September 15, 2015

Registration No. 333-

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-3

REGISTRATION STATEMENT

UNDER

THE SECURITIES ACT OF 1933

MIRATI THERAPEUTICS, INC.

(Exact name of registrant as specified in its charter)

Delaware(State or other jurisdiction of incorporation or organization)

46-2693615 (I.R.S. Employer Identification Number)

9393 Towne Centre Drive, Suite 200

San Diego, CA 92121

(858) 332-3410

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

Charles M. Baum, M.D., Ph.D.

President and Chief Executive Officer

9393 Towne Centre Drive, Suite 200

San Diego, CA 92121

(858) 332-3410

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

Copies to:

Thomas A. Coll, Esq.

Sean M. Clayton, Esq.

Charles S. Kim, Esq.

Cooley LLP

4401 Eastgate Mall

San Diego, CA 92121

(858) 550-6000

From time to time after the effective date of this registration statement

(Approximate date of commencement of proposed sale to the public)

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

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. X

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 for the same offering. x (File No. 333-198678)

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. O

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box. O

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box. O

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

Large accelerated filer O Non-accelerated filer o (Do not check if a smaller reporting company) Accelerated filer X Smaller reporting company O

\$

CALCULATION OF REGISTRATION FEE

Title of each class of securities to be registered(1) Common Stock, par value \$0.001 per share

Proposed Maximum Aggregate Offering Price

Amount of Registration Fee(2)

18,187,500

(1) The registrant previously registered such indeterminate number of shares common stock, preferred stock and such indeterminate number of warrants to purchase common stock or preferred stock, as would have an aggregate offering price not to exceed \$150,000,000 or its equivalent in any other currency, currency units, or composite currency or currencies on a Registration Statement on Form S-3 (File No. 333-198678), which was declared effective on September 24, 2014. The proposed maximum offering price per share will be determined, from time to time, by the registrant in connection with the issuance by the registrant of the shares of common stock registered hereunder.

(2)Calculated pursuant to Rule 457(o) under the Securities Act.

The Registration Statement shall become effective upon filing in accordance with Rule 462(b) promulgated under the Securities Act of 1933, as amended.

EXPLANATORY NOTE AND

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

This Registration Statement is being filed with the Securities and Exchange Commission (the Commission) pursuant to Rule 462(b) under the Securities Act of 1933, as amended. This Registration Statement incorporates by reference the contents of, including all amendments and exhibits thereto and all information incorporated by reference therein, the Registration Statement on Form S-3 (Registration No. 333-198678), which was declared effective by the Commission on September 24, 2014, and is being filed solely for the purpose of registering an increase in the maximum aggregate offering price of \$18,187,500. The required opinions and consents are listed on the Exhibit Index attached hereto.

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 the 15th day of September, 2015.

MIRATI THERAPEUTICS, INC.

By: /s/ Charles M. Baum, M.D., Ph.D. Charles M. Baum, M.D., Ph.D.

President and Chief Executive Officer

Pursuant to the requirements of the Securities Act, this registration statement has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Charles M. Baum, M.D., Ph.D. Charles M. Baum, M.D., Ph.D.	President, Chief Executive Officer and Member of the Board of Directors (Principal Executive Officer)	September 15, 2015
/s/ Mark J. Gergen Mark J. Gergen	Executive Vice President and Chief Operating Officer (Principal Financial Officer)	September 15, 2015
/s/ Jamie A. Donadio Jamie A. Donadio	Vice President of Finance (Principal Accounting Officer)	September 15, 2015
/s/ * Rodney W. Lappe, Ph.D.	Chairman of the Board of Directors	September 15, 2015
/s/ * Henry J. Fuchs, M.D.	Member of the Board of Directors	September 15, 2015
/s/ * Craig Johnson	Member of the Board of Directors	September 15, 2015
/s/ * William R. Ringo	Member of the Board of Directors	September 15, 2015

^{*} By: /s/ Charles M. Baum, M.D., Ph.D. Charles M. Baum, M.D., Ph.D. Attorney-in-fact

INDEX TO EXHIBITS

Exhibit		
Number		Description of Document
	5.1	Opinion of Cooley LLP
	23.1	Consent of Independent Registered Public Accounting Firm- US
	23.2	Consent of Independent Registered Public Accounting Firm- Canada
	23.3	Consent of Cooley LLP (included in Exhibit 5.1)
	24.1	Powers of Attorney (included in registrant s Registration Statement on Form S-3 (File No. 333-198678) filed with the
		Securities and Exchange Commission on September 11, 2014, and incorporated herein by reference)