

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549**

**FORM S-8
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933**

ROCKET PHARMACEUTICALS, INC.

(Exact Name of Registrant as Specified in its Charter)

Delaware
(State or Other Jurisdiction of
Incorporation or Organization)

04-3475813
(I.R.S. Employer
Identification No.)

Rocket Pharmaceuticals, Inc.
430 East 29th Street, Suite 1040
New York, NY 10016
(646) 440-9100
(Address of Principal Executive Offices)

Rocket Pharmaceuticals Ltd. 2015 Share Option Plan
Rocket Pharmaceuticals, Inc. (f/k/a Inotek Pharmaceuticals Corporation) Amended and Restated 2014 Stock Option and Incentive Plan
Rocket Pharmaceuticals, Inc. (f/k/a Inotek Pharmaceuticals Corporation) Amended and Restated 2014 Employee Stock Purchase Plan
(Full Title of the Plans)

Gaurav Shah, MD
President and Chief Executive Officer
430 East 29th Street, Suite 1040
New York, NY 10016
(646) 440-9100
(Name and Address of Agent For Service)

Copy to:

Ryan A. Murr
Gibson, Dunn & Crutcher LLP
555 Mission Street, Suite 3000
San Francisco, CA 94105
(415) 393-8200

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth 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 Accelerated filer
Non-accelerated filer (Do not check if a smaller reporting company) Smaller reporting company
Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Exchange Act.

CALCULATION OF REGISTRATION FEE

| Title of Securities to be Registered | Amount to be Registered(1) | Proposed Maximum Offering Price per Share | Proposed Maximum Aggregate Offering Price | Amount of Registration Fee |
|--|----------------------------------|---|---|----------------------------------|
| Common Stock, \$0.01 par value per share | | | | |
| - Outstanding options under the Rocket Pharmaceuticals Ltd. 2015 Share Option Plan | 6,959,347 shares (2) | \$1.02 (5) | \$7,098,534 | \$883.77 |

| | | | | |
|---|----------------------|------------|--------------|------------|
| - Future awards under the Rocket Pharmaceuticals, Inc. (f/k/a Inotek Pharmaceuticals Corporation) Amended and Restated 2014 Stock Option and Incentive Plan | 3,216,929 shares (3) | \$16.89(6) | \$54,333,931 | \$6,764.57 |
| - Future awards under the Rocket Pharmaceuticals, Inc. (f/k/a Inotek Pharmaceuticals Corporation) 2014 Amended and Restated Employee Stock Purchase Plan | 6,562 shares (4) | \$16.89(6) | \$110,832 | \$13.80 |
| Total | 10,182,838 shares | | | \$7,662.14 |

- (1) Pursuant to Rule 416(a) under the Securities Act of 1933, as amended (the "Securities Act"), this Registration Statement shall also cover any additional shares of common stock which become issuable under the Plans (as defined below) by reason of any stock dividend, stock split, recapitalization or any other similar transaction effected without the receipt of consideration which results in an increase in the number of our outstanding shares of common stock. Pursuant to Rule 416(c) under the Securities Act, this Registration Statement shall also cover an indeterminate amount of interests to be offered or sold pursuant to the employee benefit plan described herein.
- (2) Represents outstanding options issued under the Rocket Pharmaceuticals Ltd. 2015 Share Option Plan (the "Assumed Plan"), assumed by the Registrant at the effective time of the Merger (defined in the explanatory note below).
- (3) Represents 2,944,702 shares that remained available under the Assumed Plan and that have been added to the share reserve of the Rocket Pharmaceuticals, Inc. (f/k/a Inotek Pharmaceuticals Corporation) Amended and Restated 2014 Stock Option and Incentive Plan (the "Rocket Plan") and 272,227 shares that were automatically added to the shares authorized for future issuance under the Rocket Plan.
- (4) Represents 6,562 shares that were automatically added to the shares authorized for future issuance under the Rocket Pharmaceuticals, Inc. (f/k/a Inotek Pharmaceuticals Corporation) 2014 Amended and Restated Employee Stock Purchase Plan (the "ESPP" and, together with the Assumed Plan and the Rocket Plan, the "Plans").
- (5) This estimate is made pursuant to Rule 457(h) under the Securities Act solely for the purpose of determining the registration fee. The price per share and aggregate offering price are based upon the weighted average exercise price of the related options granted under the Assumed Plan.
- (6) This estimate is made pursuant to Rule 457(h) under the Securities Act solely for the purpose of determining the registration fee. The price per share and aggregate offering price are based upon the average of the high and low prices of the Registrant's common stock, as reported on the NASDAQ Global Market on March 1, 2018 of \$16.89.

EXPLANATORY NOTE

Pursuant to an Agreement and Plan of Merger and Reorganization, dated as of September 12, 2017 (the “Merger Agreement”), by and among the Registrant, Rome Merger Sub, a wholly owned subsidiary of the Registrant (the “Merger Subsidiary”), and Rocket Pharmaceuticals, Ltd., a private company (“Rocket”), pursuant to which the Merger Subsidiary was merged with and into Rocket (the “Merger”), the Registrant assumed the Assumed Plan and each vested and unvested option under the Assumed Plan that was outstanding on January 4, 2018. Immediately after the consummation of the Merger on January 4, 2018, the options issued under the Assumed Plan and assumed by the Registrant pursuant to the Merger Agreement were exercisable for 6,959,347 shares of the Registrant’s common stock and the shares that remained available under the Assumed Plan were added to the share reserve of the Rocket Plan as 2,944,702 shares of the Registrant’s Common Stock. Additionally, this Registration Statement is being filed for the purpose of registering an additional (i) 272,227 shares of the Registrant’s common stock issuable pursuant to the Rocket Plan and (ii) 6,562 shares of the Registrant’s common stock issuable pursuant to the ESPP.

Part I

INFORMATION REQUIRED IN THE SECTION 10(a) PROSPECTUS

Item 1. Plan Information.

The documents containing the information specified in this Item 1 will be sent or given to participants as specified by Rule 428(b)(1) under the Securities Act. In accordance with the rules and regulations of the Securities and Exchange Commission (the "Commission") and the instructions to Form S-8, such documents are not being filed with the Commission either as part of this Registration Statement or as prospectuses or prospectus supplements pursuant to Rule 424 under the Securities Act.

Item 2. Registrant Information and Employee Plan Annual Information.

The documents containing the information specified in this Item 2 will be sent or given to participants as specified by Rule 428(b)(1) under the Securities Act. In accordance with the rules and regulations of the Commission and the instructions to Form S-8, such documents are not being filed with the either as part of this Registration Statement or as prospectuses or prospectus supplements pursuant to Rule 424 under the Securities Act.

Part II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference.

The Registrant hereby incorporates by reference into this Registration Statement the following documents filed with the Commission:

- (a) The Registrant's latest Annual Report on Form 10-K filed pursuant to Sections 13(a) or 15(d) of the Securities Exchange Act of 1934 (the "Exchange Act") or latest prospectus filed pursuant to Rule 424(b) under the Securities Act that contains audited financial statements for the Registrant's latest fiscal year for which such statements have been filed;
- (b) all other reports filed by the Registrant pursuant to Section 13(a) or 15(d) of the Exchange Act since the end of the fiscal year covered by the Registrant's latest Annual Report or prospectus referred to in (a) above; and
- (c) The description of the Registrant's common stock contained in the Registrant's Registration Statement on Form 8-A (File No. 001-36829), filed by the Registrant with the SEC under Section 12(b) of the Exchange Act, on February 2, 2015, including any amendments or reports filed for the purpose of updating such description.

All documents that the Registrant subsequently files pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act prior to the filing of a post-effective amendment to this registration statement which indicates that all of the shares of common stock offered have been sold or which deregisters all of such shares then remaining unsold, shall be deemed to be incorporated by reference in this registration statement and to be a part hereof from the date of the filing of such documents.

Any statement contained in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded to the extent that a statement contained herein or in any other subsequently filed document which also is or is deemed to be incorporated by reference herein modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this registration statement.

Under no circumstances will any information filed under current items 2.02 or 7.01 of Form 8-K be deemed incorporated herein by reference unless such Form 8-K expressly provides to the contrary.

Item 4. Description of Securities.

Not applicable.

Item 5. Interests of Named Experts and Counsel.

Not applicable.

Item 6. Indemnification of Directors and Officers.

Section 145 of the Delaware General Corporation Law permits a corporation to include in its charter documents, and in agreements between the corporation and its directors and officers, provisions expanding the scope of indemnification beyond that specifically provided by the current law.

The Registrant's amended and restated by-laws provide for the indemnification of officers, directors and third parties acting on the Registrant's behalf if such persons act in good faith and in a manner reasonably believed to be in and not opposed to the Registrant's best interest, and, with respect to any criminal action or proceeding, such indemnified party had no reason to believe his or her conduct was unlawful.

The Registrant has entered into or plans to enter into indemnification agreements with each of its directors and executive officers, in addition to the indemnification provisions provided for in its by-laws, and the Registrant intends to enter into indemnification agreements with any new directors and executive officers in the future. These agreements provide for indemnification for all reasonable expenses and liabilities incurred in connection with any action or proceeding brought against them by reason of the fact that they are or were agents of the Registrant.

The Registrant intends to purchase and maintain insurance on behalf of any person who is or was a director or officer against any loss arising from any claim asserted against him or her and incurred by him or her in that capacity, subject to certain exclusions and limits of the amount of coverage.

These indemnification provisions and the indemnification agreements entered into between the Registrant and its officers and directors may be sufficiently broad to permit indemnification of the registrant's officers and directors for liabilities (including reimbursement of expenses incurred) arising under the Securities Act.

Item 7. Exemption from Registration Claimed.

Not applicable.

Item 8. Exhibits.

The following exhibits are filed as part of this registration statement:

| Exhibit No. | Description |
|--------------------|---|
| 3.1 | <u>Seventh Amended and Restated Certificate of Incorporation of Rocket Pharmaceuticals, Inc. (Incorporated by reference to Exhibit 3.1 to the Registrant's Annual Report on Form 10-K filed with the SEC on March 31, 2015 (File No. 001-36829)).</u> |
| 3.2 | <u>Certificate of Amendment (Reverse Stock Split) to the Certificate of Incorporation of the Company, dated January 4, 2018 (Incorporated by reference to Exhibit 3.1 to the registrant's Form 8-K filed with the SEC on January 5, 2018 (File No. 001-36829)).</u> |
| 3.3 | <u>Certificate of Amendment (Name Change) to the Certificate of Incorporation of the Company, dated January 4, 2018 (Incorporated by reference to Exhibit 3.2 to the Registrant's Form 8-K filed with the SEC on January 5, 2018 (File No. 001-36829)).</u> |
| 3.4 | <u>Amended and Restated By-Laws of Rocket Pharmaceuticals, Inc. (Incorporated by reference to Exhibit 3.4 to the Registrant's registration statement on Form 8-A, as amended, filed with the SEC on January 11, 2018 (File No. (001-36829)).</u> |
| 4.1 | <u>Form of Common Stock Certificate of Rocket Pharmaceuticals, Inc. (Incorporated by reference to Exhibit 4.1 to the Registrant's Form 8-K filed with the SEC on January 5, 2018 (File No. 001-36829)).</u> |
| 4.2 | <u>Base Indenture, dated as of August 5, 2016, by and between the Registrant and Wilmington Trust, National Association (Incorporated by reference to Exhibit 4.1 to the Registrant's Form 8-K filed with the SEC on August 5, 2016) (File No. 001-36829).</u> |
| 4.3 | <u>First Supplemental Indenture, dated as of August 5, 2016, by and between the Registrant and Wilmington Trust, National Association (Incorporated by reference to Exhibit 4.2 to the Registrant's Form 8-K filed with the SEC on August 5, 2016) (File No. 001-36829).</u> |
| 4.4 | <u>Form of 5.75% Convertible Senior Note due 2021 (Incorporated by reference to Exhibit 4.3 to the Registrant's Form 8-K filed with the SEC on August 5, 2016) (File No. 001-36829).</u> |
| 5.1* | <u>Opinion of Gibson, Dunn & Crutcher LLP.</u> |
| 23.1* | <u>Consent of RSM US LLP, Independent Registered Public Accounting Firm.</u> |
| 23.2* | <u>Consent of Gibson, Dunn & Crutcher LLP (included in Exhibit 5.1).</u> |
| 24.1* | <u>Power of attorney (included on signature page).</u> |
| 99.1 | <u>Rocket Pharmaceuticals Ltd. 2015 Share Option Plan (Incorporated by reference to Exhibit 10.3 to the Registrant's annual report on Form 10-K filed with the SEC on March 7, 2018 (File No. 001-36829)).</u> |
| 99.2 | <u>Rocket Pharmaceuticals, Inc. (f/k/a Inotek Pharmaceuticals Corporation) Amended and Restated 2014 Stock Option and Incentive Plan (Incorporated by reference to Exhibit 10.2 to the Registrant's annual report on Form 10-K filed with the SEC on March 7, 2018 (File No. 001-36829)).</u> |
| 99.3 | <u>Rocket Pharmaceuticals, Inc. (f/k/a Inotek Pharmaceuticals Corporation) 2014 Amended and Restated Employee Stock Purchase Plan (Incorporated by reference to Exhibit 10.10 to the Registrant's annual report on Form 10-K filed with the SEC on March 7, 2018 (File No. 001-36829)).</u> |

* Filed herewith.

Item 9. Undertakings.

(a) The 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.

(ii) To reflect in the prospectus any facts or events arising after the effective date of the 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.

(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) herein do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the Registrant pursuant to Section 13 or Section 15(d) of the Exchange Act (15 U.S.C. 78m or 78o(d)) that are incorporated by reference in the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment 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.

(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 Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the Registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) 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.

(h) Insofar as indemnification for liabilities arising under the Securities Act 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 Commission such indemnification is against public policy as expressed in the Securities Act 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 and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of New York, State of New York, on the 7th day of March, 2018.

ROCKET PHARMACEUTICALS, INC.

By: /s/ Gaurav Shah
Gaurav Shah, MD
President, Chief Executive Officer and Director

POWER OF ATTORNEY AND SIGNATURES

KNOW ALL BY THESE PRESENT, that each individual whose signature appears below hereby constitutes and appoints each of Gaurav Shah and John Militello as such person's true and lawful attorney-in-fact and agent with full power of substitution and resubstitution, for such person in such person's name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this Registration Statement on Form S-8, and to file the same, with all exhibits thereto, and all documents in connection therewith, with the Commission granting unto each said attorney-in-fact and agent full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as such person might or could do in person, hereby ratifying and confirming all that any said attorney-in-fact and agent, or any substitute or substitutes of any of them, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act, this Registration Statement has been signed by the following person in the capacities and on the date indicated below.

| Name | Title | Date |
|---|---|---------------|
| <u>/s/ Gaurav Shah</u> Gaurav Shah, MD | President, Chief Executive Officer and Director <i>(Principal Executive Officer)</i> | March 7, 2018 |
| <u>/s/ John Militello</u> John Militello | Controller <i>(Principal Financial and Accounting Officer)</i> | March 7, 2018 |
| <u>/s/ Roderick Wong</u> Roderick Wong, MD | Director | March 7, 2018 |
| <u>/s/ Naveen Yalamanchi</u> Naveen Yalamanchi, MD | Director | March 7, 2018 |
| <u>/s/ Carsten Boess</u> Carsten Boess | Director | March 7, 2018 |
| <u>/s/ David P. Southwell</u> David P. Southwell | Director | March 7, 2018 |
| <u>/s/ Pedro Granadillo</u> Pedro Granadillo | Director | March 7, 2018 |
| <u>/s/ Gotham Makker</u> Gotham Makker, MD | Director | March 7, 2018 |

March 7, 2018

Rocket Pharmaceuticals, Inc.
430 East 29th Street, Suite 1040
New York, NY 10016

Re: Rocket Pharmaceuticals, Inc. Registration Statement on Form S-8

Ladies and Gentlemen:

We have examined the Registration Statement on Form S-8 (the "Registration Statement"), of Rocket Pharmaceuticals, Inc., a Delaware corporation (the "Company") filed with the Securities and Exchange Commission (the "Commission") pursuant to the Securities Act of 1933, as amended (the "Securities Act"), in connection with the offering by the Company of (i) up to 6,959,347 shares of the Company's common stock, par value \$0.01 per share (the "Common Stock"), issuable pursuant to the assumption of outstanding stock option awards granted under the Rocket Pharmaceuticals Ltd. 2015 Share Option Plan (the "Target Plan"); (ii) up to 2,944,702 shares of Common Stock that remained available for issuance under the Target Plan and were added to the share reserve of the Rocket Pharmaceuticals, Inc. Amended and Restated 2014 Stock Option and Incentive Plan (the "2014 Plan"); (iii) up to 272,227 shares of Common Stock that were automatically added to the shares authorized for future issuance under the 2014 Plan; and (iv) up to 6,562 shares of Common Stock that were automatically added to the shares authorized for future issuance under the Rocket Pharmaceuticals, Inc. Amended and Restated 2014 Employee Stock Purchase Plan (the "ESPP" and, together with the Target Plan and the 2014 Plan, the "Plans").

We have examined the Plans and the originals, or photostatic or certified copies, of such records of the Company and certificates of officers of the Company and of public officials and such other documents as we have deemed relevant and necessary as the basis for the opinions set forth below. We have also made such other investigations as we have deemed relevant and necessary or appropriate in connection with the opinion hereinafter set forth. In our examination, we have assumed the genuineness of all signatures, the legal capacity and competency of all natural persons, the authenticity of all documents submitted to us as originals and the conformity to original documents of all documents submitted to us as copies. We have also assumed that there are no agreements or understandings between or among the Company and any participants in the Plans that would expand, modify or otherwise affect the terms of the Plans or the respective rights or obligations of the participants thereunder. Finally, we have assumed the accuracy of all other information provided to us by the Company during the course of our investigations, on which we have relied in issuing the opinion expressed below.

Based upon the foregoing examination and in reliance thereon, and subject to the assumptions stated and in reliance on statements of fact contained in the documents that we have examined, we are of the opinion that the shares of Common Stock issuable under the Plans, when issued and sold in accordance with the terms of the respective Plans and against payment therefor, and when the Registration Statement has become effective under the Securities Act, will be validly issued, fully paid and non-assessable.

We render no opinion herein as to matters involving the laws of any jurisdiction other than the Delaware General Corporation Law (the "DGCL"). We are not admitted to practice in the State of Delaware; however, we are generally familiar with the DGCL as currently in effect and have made such inquiries as we consider necessary to render the opinions above. This opinion is limited to the effect of the current state of the law of the DGCL and the facts as they currently exist. We assume no obligation to revise or supplement this opinion in the event of future changes in such law or the interpretations thereof or such facts.

We consent to the filing of this opinion as an exhibit to the Registration Statement. In giving this consent, we do not thereby admit that we are within the category of persons whose consent is required under Section 7 of the Securities Act or the Rules and Regulations of the Commission.

Very truly yours,

/s/ Gibson, Dunn & Crutcher LLP

Beijing • Brussels • Century City • Dallas • Denver • Dubai • Frankfurt • Hong Kong • Houston • London • Los Angeles • Munich
New York • Orange County • Palo Alto • Paris • San Francisco • São Paulo • Singapore • Washington, D.C.

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the Registration Statement on Form S-8 of Rocket Pharmaceuticals, Inc. (formerly Inotek Pharmaceuticals Corporation) of our report dated March 7, 2018 relating to the consolidated financial statements of Inotek Pharmaceuticals Corporation, appearing in the Annual Report on Form 10-K of Rocket Pharmaceuticals, Inc. for the year ended December 31, 2017.

/s/ RSM US LLP

Boston, Massachusetts

March 7, 2018