

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

SCHEDULE 13D/A

INFORMATION TO BE INCLUDED IN STATEMENTS FILED PURSUANT
TO RULE 13d-1(a) AND AMENDMENTS THERETO FILED PURSUANT TO
RULE 13d-2(a)

Under the Securities Exchange Act of 1934
(Amendment No. 8)

Rocket Pharmaceuticals, Inc.
(Name of Issuer)

Common Stock, par value \$0.01 per share
(Title of Class of Securities)

77313F106
(CUSIP Number)

Eleazer Klein, Esq.
Adriana Schwartz, Esq.
919 Third Avenue
New York, New York 10022
(212) 756-2000
(Name, Address and Telephone Number of Person
Authorized to Receive Notices and Communications)

October 6, 2022
(Date of Event which Requires
Filing of this Schedule)

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 Rule 13d-1(e), 13d-1(f) or 13d-1(g), check the following box. []

NOTE: Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. See Rule 13d-7 for other parties to whom copies are to be sent.

(Continued on following pages)

(Page 1 of 6 Pages)

The information required on 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).

| | | |
|---|--|---|
| 1 | NAME OF REPORTING PERSON RTW Investments, LP | |
| 2 | CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/> | |
| 3 | SEC USE ONLY | |
| 4 | SOURCE OF FUNDS AF | |
| 5 | CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDING IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e) <input type="checkbox"/> | |
| 6 | CITIZENSHIP OR PLACE OF ORGANIZATION Delaware | |
| NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH | 7 | SOLE VOTING POWER 0 |
| | 8 | SHARED VOTING POWER 17,628,567* |
| | 9 | SOLE DISPOSITIVE POWER 0 |
| | 10 | SHARED DISPOSITIVE POWER 17,628,567* |
| 11 | AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH PERSON 17,628,567* | |
| 12 | CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES <input type="checkbox"/> | |
| 13 | PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) (see Item 5) 24.3%* | |
| 14 | TYPE OF REPORTING PERSON PN, IA | |

* The above-referenced shares of common stock, par value \$0.01 per share (the "Common Stock") of Rocket Pharmaceuticals, Inc. (the "Issuer"), reported hereunder are held by one or more funds (together the "RTW Funds") managed by RTW Investments, LP (the "RTW Investments"). RTW Investments, in its capacity as the investment manager of the RTW Funds, has the power to vote and the power to direct the disposition of all such shares of Common Stock held by the RTW Funds. Roderick Wong, M.D. ("Dr. Wong") is the Managing Partner and Chief Investment Officer of RTW Investments. The percentage of Common Stock held is based upon 72,637,894 shares of Common Stock outstanding, as reported in the Issuer's Prospectus filed pursuant to Rule 424(b)(5) with the Securities and Exchange Commission on October 4, 2022 after giving effect to the completion of the offering described therein (the "October Public Offering").

| | | |
|---|---|--|
| 1 | NAME OF REPORTING PERSON Roderick Wong | |
| 2 | CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/> | |
| 3 | SEC USE ONLY | |
| 4 | SOURCE OF FUNDS AF, OO | |
| 5 | CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDING IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e) <input type="checkbox"/> | |
| 6 | CITIZENSHIP OR PLACE OF ORGANIZATION United States of America | |
| NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH | 7 | SOLE VOTING POWER 129,795 shares of Common Stock underlying director stock options |
| | 8 | SHARED VOTING POWER 17,628,567* |
| | 9 | SOLE DISPOSITIVE POWER 129,795 shares of Common Stock underlying director stock options |
| | 10 | SHARED DISPOSITIVE POWER 17,628,567* |
| 11 | AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH PERSON 17,628,567* 129,795 shares of Common Stock underlying director stock options | |
| 12 | CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES <input type="checkbox"/> | |
| 13 | PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) (see Item 5) 24.4%* | |
| 14 | TYPE OF REPORTING PERSON HC, IN | |

* The above-referenced shares of Common Stock of the Issuer, reported hereunder are held by the RTW Funds managed by RTW Investments. RTW Investments, in its capacity as the investment manager of the RTW Funds, has the power to vote and the power to direct the disposition of all such shares of Common Stock held by the RTW Funds. Dr. Wong is the Managing Partner and Chief Investment Officer of RTW Investments. The percentage of Common Stock held is based upon 72,637,894 shares of Common Stock outstanding, as reported in the Issuer's Prospectus filed pursuant to Rule 424(b)(5) with the Securities and Exchange Commission on October 4, 2022 after giving effect to the completion of the October Public Offering, and assumes the exercise of the stock options held by Dr. Wong.

This Amendment No. 8 relates to and amends the Statement of Beneficial Ownership on Schedule 13D of RTW Investments and Dr. Wong (each, a "Reporting Person" and collectively, the "Reporting Persons"), initially filed jointly by the Reporting Persons with the U.S. Securities and Exchange Commission ("SEC") on January 16, 2018, and amended on November 29, 2018, April 16, 2019, December 13, 2019, January 8, 2021, March 29, 2021, August 31, 2021 and September 21, 2022 (as amended, the "Schedule 13D"), with respect to the Common Stock of the Issuer.

Items 3, 5(a)-(c) and 6 of the Schedule 13D are hereby amended to the extent hereinafter expressly set forth. All capitalized terms used and not expressly defined herein have the respective meanings ascribed to such terms in the Schedule 13D.

Item 3. SOURCE AND AMOUNT OF FUNDS OR OTHER CONSIDERATION.

Item 3 of the Schedule 13D is hereby amended to add the following:

Since the date of the Schedule 13D, the Reporting Persons made the following transactions:

On October 6, 2022, upon the closing of the October Public Offering, the RTW Funds purchased 1,355,932 shares of Common Stock at the public offering price of \$14.75 per share, for an aggregate purchase price of \$19,999,997. The source of funds used for the purchase of the shares of Common Stock reported herein was the working capital of the RTW Funds.

The director stock options reported herein are held directly by Dr. Wong and were issued in consideration for his services on the board of directors of the Issuer.

Item 5. INTEREST IN SECURITIES OF THE COMPANY.

Items 5 (a)-(c) of the Schedule 13D is hereby amended and restated as follows:

(a) See rows (11) and (13) of the cover pages to this Schedule 13D for the aggregate number of shares of Common Stock and percentages of the shares of Common Stock beneficially owned by the Reporting Persons. The aggregate percentage of the shares of Common Stock reported to be beneficially owned by each Reporting Person is based upon 72,637,894 shares of Common Stock outstanding, as reported in the Issuer's Prospectus filed pursuant to Rule 424(b)(5) with the Securities and Exchange Commission on October 4, 2022 after giving effect to the completion of the October Public Offering.

(b) See rows (7) through (10) of the cover page to this Schedule 13D for the number of shares of Common Stock as to which each Reporting Person has the sole or shared power to vote or direct the vote and sole or shared power to dispose or to direct the disposition.

(c) The RTW Funds purchased 1,355,932 shares of Common Stock in the October Public Offering at the public offering price of \$14.75 per share. Except as described herein, no transactions in the shares of Common Stock were effected by the Reporting Persons during the past sixty (60) days.

Item 6. CONTRACTS, ARRANGEMENTS, UNDERSTANDINGS OR RELATIONSHIPS WITH RESPECT TO SECURITIES OF THE ISSUER.

Item 6 of the Schedule 13D is hereby amended to add the following:

On March 29, 2018, options to purchase a total of 47,000 shares of Common Stock were granted to Dr. Wong in consideration for his services on the board of directors of the Issuer. These options have an exercise price of \$18.75. These options have vested in full.

On January 28, 2019, options to purchase a total of 40,500 shares of Common Stock were granted to Dr. Wong in consideration for his services on the board of directors of the Issuer. These options have an exercise price of \$14.56. These options have vested in full.

On June 16, 2020, options to purchase a total of 27,000 shares of Common Stock were granted to Dr. Wong in consideration for his services on the board of directors of the Issuer. These options have an exercise price of \$19.90. These options have vested in full.

On June 14, 2021, options to purchase a total of 15,295 shares of Common Stock were granted to Dr. Wong in consideration for his services on the board of directors of the Issuer. These options have an exercise price of \$47.25. These options have vested in full.

On June 13, 2022, options to purchase a total of 53,621 shares of Common Stock were granted to Dr. Wong in consideration for his services on the board of directors of the Issuer. These options have an exercise price of \$10.77. These options will vest in full on June 13, 2023.

SIGNATURES

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: October 11, 2022

RTW INVESTMENTS, LP

By: /s/ Roderick Wong, M.D.
Name: Roderick Wong, M.D.
Title: Managing Partner

/s/ Roderick Wong, M.D.
RODERICK WONG, M.D.