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

FORM 8-K

CURRENT REPORT
PURSUANT TO SECTION 13 OR 15(d)
OF THE SECURITIES EXCHANGE ACT OF 1934

Date of report (Date of earliest event reported): August 10, 2017

RXi PHARMACEUTICALS CORPORATION
(Exact name of registrant as specified in its charter)

Delaware	001-36304	45-3215903
(State or other jurisdiction of incorporation or organization)	(Commission File Number)	(I.R.S. Employer Identification No.)

257 Simarano Drive, Suite 101
Marlborough, Massachusetts 01752
(Address of Principal Executive Offices) (Zip Code)

Registrant's telephone number, including area code: (508) 767-3861

Indicate by check mark whether the registrant is an emerging growth company as defined in as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

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 13(a) of the Exchange Act. ☒

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (see General Instruction A.2. below):

☐ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

☐ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

☐ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

☐ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Item 2.02 Results of Operations and Financial Condition.

On August 10, 2017, RXi Pharmaceuticals Corporation reported its results of operations for the quarter ended June 30, 2017. A copy of the press release is furnished as Exhibit 99.1 to this Current Report on Form 8-K (the "Report").

The information in this Item 2.02 and attached as Exhibit 99.1 to this Report will not be treated as "filed" for the purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or otherwise subject to the liabilities of that section. This information will not be incorporated by reference into any filing under the Securities Act of 1933, as amended, or into another filing under the Exchange Act, unless that filing expressly incorporates this information by reference.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits.

99.1 Press Release dated August 10, 2017.

* * *

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

RXi PHARMACEUTICALS CORPORATION

Date: August 10, 2017

By: /s/ Geert Cauwenbergh
Geert Cauwenbergh, Dr. Med. Sc.
Chief Executive Officer

Exhibit 99.1

RXi Pharmaceuticals Reports Second Quarter 2017 Financial Results and Recent Corporate Highlights

MARLBOROUGH, Mass., August 10, 2017 /PRNewswire/ — RXi Pharmaceuticals Corporation (NASDAQ: RXII), a clinical-stage RNAi company developing innovative therapeutics that address significant unmet medical needs, today reported its financial results for the second quarter ended June 30, 2017, and provided a business update.

"During the first half of 2017, the Company focused on the main elements that can drive progress and value for RXi," said Dr. Geert Cauwenbergh, President, and CEO of RXi Pharmaceuticals. "These key elements include:

First, we are pleased that NASDAQ has granted the Company a six-month extension to regain listing compliance with the $1.00 bid price requirement.

Second, all of our ongoing human clinical programs are on schedule. Therefore, the Company remains on track with its 2017 corporate goals to report top-line data on most studies before the end of this year.

Third, several *in vitro* studies and animal studies using sd-rxRNA® checkpoint inhibitors for immuno-oncology and cell therapy are ongoing and expected to produce reportable results in the second half of this year.

Finally, RXi maintained a conservative spend rate in line with its projected budget. Careful allocation of funds is focused on programs that we believe will maximize value creation. To continue the development of new drugs that are filling major gaps in the treatment of life threatening and debilitating diseases, we have put an equity line in place with Lincoln Park Capital Fund, LLC, a leading biotech investment fund. This funding mechanism extends our financial runway beyond Q2 2018. Importantly, the Company is in complete control of if, and when, it may choose to access the equity line."

The Company will host a conference call today at 4:30 p.m. EDT to discuss financial results and provide an update on the Company. The webcast link is available under the "Investors – Events and Presentations" section of the Company's website, www.rxipharma.com. The event may also be accessed by dialing toll-free in the United States +1 844-376-4678. International participants may access the event by dialing: +1 209-905-5983. An archive of the webcast will be available on the Company's website approximately two hours after the presentation.

Select Second Quarter 2017 Financial Highlights

Cash Position

At June 30, 2017, the Company had cash of $7.7 million, compared with $12.9 million at December 31, 2016.

On August 8, 2017, the Company entered into a purchase agreement with Lincoln Park Capital Fund, LLC ("LPC"), pursuant to which the Company has the right to sell to LPC up to $15 million in shares of the Company's common stock over the 30-month term of the agreement. We expect to use proceeds from the purchase agreement for general corporate purposes, including but not limited to the advancement of our immunotherapy program, our clinical trials, and general and administrative expenses.

The Company believes that its existing cash and the potential proceeds available under our equity facility with LPC should be sufficient to fund the Company's operations for at least the next twelve months.

Research and Development Expenses

Research and development expenses for the quarter ended June 30, 2017 were $1.3 million, as compared with $1.3 million for the quarter ended June 30, 2016. While overall research and development expenses were consistent quarter over quarter, there were increases in research and development expenses due to a ramp-up in enrollment related to the second cohort in the Company's Phase 2 clinical trial for Samcyprone™, which was offset by a decrease in stock-based compensation expense.

Acquired In-process Research and Development Expense

The Company had acquired in-process research and development expense of $0.9 million for the quarter ended June 30, 2017. There was no such expense for the three months ended June 30, 2016. In January 2017, the Company acquired all of the issued and outstanding capital stock of MirImmune Inc., a privately-held biotechnology company that was engaged in the development of cancer immunotherapies. In exchange, the Company issued shares of common stock and Series C convertible preferred stock, which were subject to a 3% holdback for any purchase price adjustments. The acquired in-process research and development expense recorded during the three months ended June 30, 2017 related to the value of the securities subject to the holdback that was released on April 12, 2017.

General and Administrative Expenses

General and administrative expenses for the quarter ended June 30, 2017 were $1.1 million, as compared with $0.9 million for the quarter ended June 30, 2016. The increase in general and administrative expenses was due to increases in employee headcount in connection with the acquisition of MirImmune and legal and accounting fees. These increases were offset by a decrease in stock-based compensation expense.

Net Loss

Net loss for the three months ended June 30, 2017 was $2.5 million, compared with $2.2 million for the three months ended June 30, 2016. The increase in net loss was primarily driven by the changes in acquired in-process research and development expense and general and administrative expenses, as discussed above.

Nasdaq Compliance

On August 2, 2017, the NASDAQ Stock Market provided written notice and granted the Company an additional 180 calendar days to regain compliance with the minimum bid price requirements set forth in the NASDAQ listing rules. As a result of this extension, the Company has until January 29, 2018 to regain compliance by maintaining a closing bid price of at least $1.00 for 10 consecutive business days. The NASDAQ written notice has no effect on the listing of the Company's common stock at this time.

Select Second Quarter 2017 and Recent Corporate Highlights

Select Business and Corporate Highlights

Board of Directors

The Company announced the appointment of Dr. Jonathan Freeman as an independent director to the Company's Board of Directors. Dr. Freeman is a member of the Company's Audit and Nominating & Governance Committees.

Dr. Jonathan Freeman currently serves as the Chief Business Officer at Vedanta Biosciences, a privately-held company developing a class of drugs that work by modulating the human microbiome, with an initial emphasis on autoimmune and inflammatory diseases. Previously, Dr. Freeman was Senior Vice President, Head of Strategy Development and Portfolio Management at Merck KGaA. Before that role, he was the Head of Global Business Development and Licensing at Merck executing more than 30 transactions and structured financings. Prior to his roles at Merck, Jonathan served in senior positions at Baxter and Serono, in M&A and, Corporate and Business Development, respectively. Jonathan holds a First Class Honours in Biochemistry and an MA from Cambridge University, UK, a Ph.D. in cancer research from the Imperial Cancer Research Fund (now CRUK), and an MBA with a finance major from Webster University, St. Louis. He held various post-doctoral positions at the Swiss Institute for Cancer Research (ISREC), and the Geneva Medical School (CMU).

Development Programs

Immuno-oncology

The Company's ongoing program to develop cell-based immunotherapies to treat cancer is based on its proprietary self-delivering RNAi (sd-rxRNA) technology platform. Recently, the Company announced that it extended a preclinical research collaboration with PCI Biotech to the field of immuno-oncology. This new preclinical research collaboration agreement reflects PCI Biotech's focus on oncology and the expansion of RXi's development pipeline to include immuno-oncology. In brief, the collaboration will evaluate technology compatibility and synergy based on *in vivo* studies. The companies will evaluate results achieved from this research collaboration and then explore the potential for a further partnership.

RXi has also selected two sd-rxRNA compounds from its immuno-oncology pipeline for preclinical development. For oncology treatments based on adoptive cell transfer (ACT), compounds RXI-762 and RXI-804 suppress the expression of immune checkpoint proteins PD-1 and TIGIT respectively, which can result in an improved efficacy to the targeted tumors. This decision triggered the selection of a manufacturing facility to initiate production of cGMP grade material, initially for the first of these two compounds (RXI-762). The latter also supports moving RXI-762 into clinical development as early as 2018 as part of an ACT therapy.

RXI-109-1402 – Hypertrophic Scarring

The Company's ongoing Phase 2 clinical trial, RXI-109-1402, is being conducted to evaluate RXI-109, a sd-rxRNA compound targeting connective tissue growth factor (CTGF), a key regulator of scar formation. This open-label, multi-center, study is designed to evaluate the effectiveness and safety of RXI-109 to reduce scar formation in healthy volunteers post scar revision surgery. The Company expects to share final study outcomes before the end of this year.

RXI-109-1501 – Retinal Scarring in Advanced Age-related Macular Degeneration (AMD)

Enrollment is complete in this Phase 1/2 study evaluating the safety and clinical activity of RXI-109 to prevent the progression of retinal scarring, a harmful component of numerous retinal diseases. This study is a multi-dose, dose escalation trial conducted in patients with advanced neovascular or wet age-related macular degeneration (AMD) where retinal scarring can result in continued vision loss. The primary endpoint for RXI-109-1501 is to evaluate the safety and tolerability of RXI-109. Additional endpoints will assess RXI-109's potential for clinical activity using numerous assessments to monitor ocular health and visual acuity. The Company expects to complete subject participation in the study by the end of 2017 and to share top-line data in early 2018.

RXI-SCP-1502 – Treatment of Cutaneous Warts

Samcyprone™, a proprietary topical formulation of the small molecule diphenylcyclopropenone (DPCP), is being evaluated in a Phase 2a clinical trial. RXI-SCP-1502 is a multi-center, multi-dose trial conducted in subjects with at least one cutaneous, plantar or periungual wart. The Company expects to share early read-outs before the end of this year.

RXI-231 – Consumer Care Products

The Company has initiated its consumer testing program with RXI-231, a cosmetic ingredient based on sd-rxRNA that targets tyrosinase (TYR). The cosmetic product is a gel formulation designed to aid in the reduction of pigmentation and thereby improving skin appearance. The consumer testing program will evaluate the use and consumer acceptability of RXI-231.

There are three studies under this program. The first two studies in volunteers are performed to determine irritation and sensitization potential of the gel product containing RXI-231 when applied to the skin. A third study investigates the potential of the product to improve the appearance of skin pigmentation induced by UV exposure. The Company projects to report results before the end of this year.

About RXi Pharmaceuticals Corporation

RXi Pharmaceuticals Corporation (NASDAQ: RXII) is a clinical-stage company developing innovative therapeutics that address significant unmet medical needs. Building on the pioneering discovery of RNAi, scientists at RXi have harnessed the naturally occurring RNAi process which can be used to "silence" or down-regulate the expression of a specific gene that may be overexpressed in a disease condition. RXi developed a robust RNAi therapeutic platform including self-delivering RNA (sd-rxRNA®) compounds, that have the ability to selectively block the expression of any target in the genome, thus providing applicability to many therapeutic areas. Our current programs include dermatology, ophthalmology and cell-based cancer immunotherapy. RXi's extensive patent portfolio provides for multiple product and business development opportunities across a broad spectrum of therapeutic areas and we actively pursue research collaborations, partnering and out-licensing opportunities with academia and pharmaceutical companies. For additional information, visit the Company's website, www.rxipharma.com.

Forward-Looking Statements

This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Such statements include, but are not limited to, statements about: our ability to successfully develop RXI-109, Samcyprone™ and our other product candidates (collectively, "our product candidates"); the future success of our clinical trials with our product candidates; the timing for the commencement and completion of clinical trials; our ability to enter into strategic partnerships and the future success of these strategic partnerships; and our ability to deploy our sd-rxRNA® technology through partnerships, as well as the prospects of these partnerships to provide positive returns. Forward-looking statements about expectations and development plans of RXi's product candidates and partnerships involve significant risks and uncertainties, including the following: risks that we may not be able to successfully develop and commercialize our product candidates; risks that product development and clinical studies may be delayed, not proceed as planned and/or be subject to significant cost over-runs; risks related to the development and commercialization of products

by competitors; risks related to our ability to control the timing and terms of collaborations with third parties; and risks that other companies or organizations may assert patent rights preventing us from developing or commercializing our product candidates. Additional risks are detailed in our most recent Annual Report on Form 10-K and subsequent Quarterly Reports on Form 10-Q under the caption “Risk Factors.” Readers are urged to review these risk factors and to not act in reliance on any forward-looking statements, as actual results may differ from those contemplated by our forward-looking statements. RXi does not undertake to update forward-looking statements to reflect a change in its views, events or circumstances that occur after the date of this release.

Contact

RXi Pharmaceuticals Corporation
Tamara McGrillen
508-929-3646
tmcgrillen@rxipharma.com

RXi PHARMACEUTICALS CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(Amounts in thousands, except share and per share data)
(Unaudited)

	For the Three Months Ended June 30, 2017	For the Three Months Ended June 30, 2016	For the Six Months Ended June 30, 2017	For the Six Months Ended June 30, 2016
Net revenues	$ —	$ 9	$ —	$ 19
Operating expenses:				
Research and development	1,329	1,339	2,676	2,644
Acquired in-process research and development	85	—	3,075	—
General and administrative	1,100	885	2,223	1,835
Total operating expenses	2,514	2,224	7,974	4,479
Operating loss	(2,514)	(2,215)	(7,974)	(4,460)
Total other income	—	3	—	17
Net loss	$ (2,514)	$ (2,212)	$ (7,974)	$ (4,443)
Net loss per common share:				
Basic and diluted loss per share	$ (0.11)	$ (0.34)	$ (0.37)	$ (0.68)
Weighted average common shares:				
Basic and diluted	22,388,360	6,534,846	21,484,772	6,534,846

RXi PHARMACEUTICALS CORPORATION
CONDENSED CONSOLIDATED BALANCE SHEETS
(Amounts in thousands)
(Unaudited)

	June 30, 2017	December 31, 2016
ASSETS		
Current assets:		
Cash and cash equivalents	$7,702	$ 12,906
Restricted cash	50	50
Prepaid expenses	337	150
Total current assets	8,809	13,106
Property and equipment, net	275	114
Notes receivable	—	150
Other assets	27	27
Total assets	$8,391	$ 13,397
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 741	$ 917
Accrued expenses	1,713	1,625
Total current liabilities	2,454	2,542
Total stockholders' equity	5,937	10,855
Total liabilities and stockholders' equity	$8,391	$ 13,397