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): November 14, 2012

RXi PHARMACEUTICALS CORPORATION

(Exact name of registrant as specified in its charter)

Delaware	**333-177498**	**45-3215903**
(State or other jurisdiction of incorporation or organization)	**(Commission File Number)**	**(I.R.S. Employer Identification No.)**

1500 West Park Drive, Suite 210	
Westborough, Massachusetts	**01581**
(Address of Principal Executive Offices)	**(Zip Code)**

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

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 November 14, 2012, RXi Pharmaceuticals Corporation (the "Company") reported its results of operations for the quarter ended September 30, 2012. 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 November 14, 2012

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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: November 14, 2012

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

Exhibit 99.1

RXi Pharmaceuticals Reports Financial Results for the Third Quarter of 2012

- **Appointment of Jeannette Graf, M.D. and Leroy Young, M.D., and re-appointment of Craig Mello, Ph.D., Nobel Laureate for the discovery of the RNAi mechanism, to the Company's Scientific Advisory Board.**
- **Receipt of a Small Business Innovation Research (SBIR) grant for approximately $300,000 from the National Cancer Institute (NCI) of the National Institutes of Health (NIH).**
- **Completion of dosing in Phase 1 Trial for RXI-109 Program.**

Westborough, MA, November 14, 2012 — RXi Pharmaceuticals Corporation (OTC: RXII), a biotechnology company focused on discovering, developing and commercializing innovative therapies addressing major unmet medical needs using RNA-targeted technologies, today reported its financial results for the quarter ended September 30, 2012.

"We have continued to execute according to plan in the third quarter of 2012, with the final reports for our first Phase 1 study due in Q1 2013," said Dr. Geert Cauwenbergh, President and CEO of RXi Pharmaceuticals. He added that, "The excellent safety profile observed with RXI-109 in our single dose Phase 1 study has helped us to finalize the preparations and dose selections for our next Phase 1 study, which will focus on multiple dosing in volunteers. We expect this study to start before the end of 2012. All this has been done with a cash burn completely in line with our projections and assets. As a new independent company, we are very pleased with our continued transition from a technology platform company into a company developing commercially viable assets."

Recent Highlights

Quarterly Financial Highlights:

Cash and Cash Equivalents

At September 30, 2012, RXi had cash and cash equivalents of approximately $6.3 million, compared with $0.5 million at December 31, 2011. The increase in cash and cash equivalents is primarily attributable to the net proceeds of approximately $8.1 million received from the issuance of the Company's convertible preferred stock upon completion of the spin-off from the Company's former parent company, Galena Biopharma, Inc. on April 27, 2012.

Net Loss Applicable to Common Stockholders

Net loss applicable to common stockholders for the third quarter of 2012 was $2.9 million, or $0.02 per basic and diluted share, compared with a net loss applicable to common stockholders of $2.0 million, or $0.05 per basic and diluted share, for the comparable period in 2011. The increase in net loss applicable to common stockholders was primarily attributable to the fair value of the non-cash dividend of $1.3 million payable to the Company's preferred shareholders.

Revenues

Revenues for the quarter ended September 30, 2012 were $0.1 million as compared with no revenues for the same period in the prior year. Revenues during the quarter related to the recognition of work completed on the Company's government grants.

Research and Development Expense

Research and development expenses for the third quarter of 2012 were $1.2 million, compared with $1.1 million for the third quarter of 2011. The increase of $0.1 million as compared to the prior year period was primarily due to an increase of $0.05 million in research and development expenses to run the clinical trial for the Company's RXI-109 program and an increase of $0.06 million in employee stock based compensation expense.

General and Administrative Expenses

General and administrative expenses for the third quarter of 2012 were $0.5 million, compared with $1.0 million for the third quarter of 2011. The decrease of $0.5 million was primarily due to a decrease of $0.3 million in general and administrative expenses due to lower personnel related costs, board fees and expenses, and professional outside services and a decrease of $0.2 million in employee stock based compensation.

Preferred Stock Accretion and Dividends

Accretion of Series A Preferred Stock and dividends was $1.3 million for the third quarter of 2012 compared with no accretion of Series A Preferred Stock and dividends for the third quarter of 2011. The $1.3 million relates to the fair value of the dividends paid to preferred shareholders during the third quarter of 2012.

Corporate Highlights

- **Receipt of a Small Business Innovation Research (SBIR) grant from the National Cancer Institute (NCI) of the National Institutes of Health (NIH):** The grant provides approximately $300,000 in funding for a project enabling the discovery and preclinical development of sd-rxRNAs® as potential therapy for retinoblastoma, a pediatric ocular malignancy. The project will be completed in collaboration with Dr. David Cobrinik and colleagues at the Memorial Sloan-Kettering Cancer Center.
- **Appointment of Scientific Advisory Board Members and re-appointment of Craig Mello, Ph.D., Nobel Laureate for the discovery of the RNAi mechanism, to the Company's Scientific Advisory Board:** RXi appointed Dr. Jeannette Graf and Dr. Leroy Young to the Company's Scientific Advisory Board and re-appointed Craig Mello, Ph.D. to the Company's Scientific Advisory Board. The addition of these two highly esteemed clinicians provides RXi with invaluable experience and clinical research expertise that are key to the ongoing development of the Company's RXI-109 program.

Scientific Achievements

- **Completion of dosing in Phase 1 Trial for RXI-109 Program:** Dosing with the Company's first product candidate, in its first Phase 1 study, was completed during September 2012. RXI-109 is being developed to prevent or reduce dermal scarring following surgery or trauma, as well as for the management of hypertrophic scars and keloids. Fifteen subjects were enrolled in a double-blind dose, escalation study during which single intradermal injections were administered in a dose dependent manner to 5 cohorts of 3 subjects each. Subjects received an injection of RXI-109 in 2 separate areas on the abdomen and placebo injections in two other areas of the abdomen. Data on safety and tolerance were collected and evaluated for each cohort before moving to the next cohort with a higher dose level. RXI-109 was well tolerated by intradermal injection. No serious local or systemic side effects were observed in the subjects at any of the doses administered.

About RXI-109

RXi Pharmaceutical's first clinical program centers around RXI-109, a self-delivering RNAi compound (sd-rxRNA®) developed by RXi for the reduction of dermal scarring in planned surgeries. RXI-109 is designed to reduce the expression of CTGF (connective tissue growth factor), a critical regulator of several biological pathways involved in fibrosis, including scar formation in the skin. The first clinical trial of RXI-109, initiated in June 2012, has been designed to evaluate the safety and tolerability of several dose levels of RXI-109 in humans and may

provide preliminary evidence of surgical scar reduction. As there are currently no FDA-approved drugs to prevent scar formation, a therapeutic of this type could have great benefit for trauma and surgical patients (especially relating to raised or hypertrophic scarring), as a treatment during the surgical revision of existing unsatisfactory scars, and in the treatment, removal and inhibition of keloids (scars which extend beyond the original skin injury).

About RXi Pharmaceuticals Corporation

RXi Pharmaceuticals Corporation (OTC: RXII) is a biotechnology company focused on discovering, developing and commercializing innovative therapies based on its proprietary, next-generation RNAi platform. Therapeutics that use RNA interference, or "RNAi," have great promise because of their ability to "silence," or down-regulate, the expression of a specific gene that may be overexpressed in a disease condition. Building on the pioneering work of scientific founder and Nobel Laureate Dr. Craig Mello, RXi's first RNAi product candidate, RXI-109, which targets CTGF (connective tissue growth factor), entered into a human clinical trial in June 2012 to evaluate its safety, tolerability and potential efficacy for scar prevention. For more information, please visit 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. Forward-looking statements can be identified by words such as: "intend," "believe," "expect," "may," "should," "designed to," "will" and similar references. Such statements include, but are not limited to, statements about: our ability to successfully develop RXI-109 and our other product candidates; the future success of our first clinical trial with RXI-109; our expectation that our next Phase 1 study in RXI-109 will start before the end of 2012; and our ability to implement cost-saving measures. Forward-looking statements are neither historical facts nor assurances of future performance. Instead they are based only on our current beliefs, expectations and assumptions regarding the future of our business, future plans and strategies, projections, anticipated events and trends, the economy and other future conditions. Because forward-looking statements relate to the future, they are subject to inherent uncertainties, risks and changes in circumstances that are difficult to predict and many of which are outside of our control. Our actual results and financial condition may differ materially from those indicated in the forward-looking statements. Therefore, you should not rely on any of these forward-looking statements. Important factors that could cause our actual results and financial condition to differ materially from those indicated in the forward-looking statements include, among others: the risk that our clinical trial with RXI-109 may not be successful in evaluating the safety and tolerability of RXI-109 or providing preliminary evidence of surgical scar reduction; the successful and timely completion of clinical studies; uncertainties regarding the regulatory process; the availability of funds and resources to pursue our research and development projects, including our clinical trials with RXI-109; general economic conditions; and those identified under "Risk Factors" in the Company's most recently filed Annual Report on Form 10-K, Quarterly Report on Form 10-Q and in other filings the Company periodically makes with the SEC. The Company does not undertake to update any of these forward-looking statements to reflect a change in its views or events or circumstances that occur after the date of this press release.

RXi PHARMACEUTICALS CORPORATION (REGISTRANT) AND PREDECESSOR (RNAi)
(A Development Stage Company)
CONDENSED STATEMENTS OF OPERATIONS
(Amounts in thousands, except share and per share data)
(Unaudited)

	RXi (Registrant) For the Three Months Ended September 30, 2012	Predecessor (RNAi) and RXi (Registrant) For the Three Months Ended September 30, 2011	RXi (Registrant) For the Nine Months Ended September 30, 2012	Predecessor (RNAi) and RXi (Registrant) For the Nine Months Ended September 30, 2011
Total revenue	$ 57	$ —	$ 57	$ —
Research and development expense	1,214	1,126	9,314	5,074
General and administrative expense	539	1,041	2,006	5,206
Operating loss	(1,696)	(2,167)	(11,263)	(10,280)
Interest income (expense)	(1)	1	(29)	1
Other income	53	123	124	2,513
Net loss	(1,644)	(2,043)	(11,168)	(7,766)
Accretion of Series A convertible preferred stock and dividends	(1,277)	—	(11,897)	—
Net loss applicable to common stockholders	$ (2,921)	$ (2,043)	$ (23,065)	$ (7,766)
Net loss per common share applicable to common stockholders:				
Basic and diluted loss per share	$ (0.02)	$ (0.05)	$ (0.18)	$ (0.23)
Weighted average common shares outstanding:				
Basic and diluted	157,155,222	41,970,481	130,032,178	33,697,704

RXi PHARMACEUTICALS CORPORATION (REGISTRANT)
(A Development Stage Company)
CONDENSED BALANCE SHEETS
(Unaudited)

	RXi (Registrant) September 30, 2012	RXi (Registrant) December 31, 2011
ASSETS		
Current assets:		
Cash and cash equivalents	$ 6,278	$ 503
Restricted cash	53	53
Due from Parent	—	597
Prepaid expenses and other current assets	144	186
Total current assets	6,475	1,339
Equipment and furnishings, net	235	355
Other assets	2	—
Total assets	$ 6,712	$ 1,694
LIABILITIES, CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' DEFICIT		
Current liabilities:		
Accounts payable	$ 155	$ 387
Accrued expenses and other current liabilities	877	544
Deferred revenue	370	816
Current maturities of capital lease obligations	9	29
Total current liabilities	1,411	1,776
Convertible notes payable	—	500
Capital lease obligations, net of current maturities current portion	—	5
Total liabilities	1,411	2,281
Commitments and contingencies		
Total convertible preferred stock	9,575	—
Total stockholders' deficit	(4,274)	(587)
Total liabilities, convertible preferred stock and stockholders' deficit	$ 6,712	$ 1,694