RXi Pharmaceuticals Corp Form SC 13G/A October 03, 2014

UNITED STATES SECURITIES AND EXCHANGE COMMISSION WASHINGTON, DC 20549

SCHEDULE 13G

Under the Securities Exchange Act of 1934 (Amendment No. 1)*

RXi Pharmaceuticals Corporation (Name of Issuer)

Common Stock, \$0.0001 par value (Title of Class of Securities)

74979C303 (CUSIP Number)

January 10, 2014 (Date of Event Which Requires Filing of this Statement)

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

[_] Rule 13d-1(b)
[X] Rule 13d-1(c)

[_] Rule 13d-1(d)

^{*}The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter the disclosures provided in a prior cover page.

The information required in 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).

CUSIP 74979C303 No.

NAME OF

1. REPORTING

PERSONS

I.R.S.

IDENTIFICATION

NOS. OF

ABOVE

PERSONS

(ENTITIES

ONLY)

RTW

Investments,

LLC

CHECK THE

APPROPRIATE

BOX IF A

MEMBER OF A

GROUP (SEE

INSTRUCTIONS)

(a) [_]

(b) [X]

, SEC USE

ONLY

CITIZENSHIP

, OR PLACE

* OF

ORGANIZATION

Delaware

NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING

SOLE 5. VOTING

POWER

PERSON WITH

0 **SHARED** 6. VOTING **POWER** 0 **SOLE** 7. DISPOSITIVE **POWER** 0 **SHARED** 8. DISPOSITIVE **POWER** 0 **AGGREGATE AMOUNT** 9. BENEFICIALLY OWNED BY EACH **REPORTING PERSON** 0 **CHECK BOX IF** THE **AGGREGATE AMOUNT** 10.IN ROW (9) **EXCLUDES CERTAIN SHARES** (SEE **INSTRUCTIONS**) $[_]$ **PERCENT** OF CLASS REPRESENTED 11. BY

AMOUNT IN ROW (9) 0%

TYPE OF REPORTING 12. PERSON (SEE INSTRUCTIONS) OO

CUSIP 74979C303

NAME OF

1. REPORTING
PERSONS
I.R.S.
IDENTIFICATION
NOS. OF
ABOVE
PERSONS

RTW Master Fund, Ltd.

(ENTITIES ONLY)

APPROPRIATE
BOX IF A

MEMBER OF A
GROUP (SEE
INSTRUCTIONS)
(a) [_]
(b) [X]

CHECK THE

3. SEC USE ONLY

CITIZENSHIP
OR PLACE
OF
ORGANIZATION

Cayman Islands

NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH

5.

SOLE VOTING POWER 0 **SHARED** 6. VOTING **POWER** 0 **SOLE** 7. DISPOSITIVE **POWER** 0 **SHARED** 8. DISPOSITIVE **POWER** 0 **AGGREGATE AMOUNT** 9. BENEFICIALLY OWNED BY EACH **REPORTING PERSON** 0 **CHECK BOX IF** THE **AGGREGATE AMOUNT** 10.IN ROW (9) **EXCLUDES CERTAIN SHARES** (SEE INSTRUCTIONS) [_] 11.PERCENT OF CLASS

REPRESENTED

BY

6

AMOUNT
IN ROW (9)

0%

TYPE OF
REPORTING
12.PERSON
(SEE
INSTRUCTIONS)

CO

CUSIP No. 74979C303

NAME OF

1. REPORTING

PERSONS

I.R.S.

IDENTIFICATION

NOS. OF

ABOVE

PERSONS

(ENTITIES

ONLY)

Roderick

Wong

CHECK THE

APPROPRIATE

BOX IF A

². MEMBER OF A

GROUP (SEE

INSTRUCTIONS)

(a) [_]

(b) [X]

3 SEC USE

ONLY

CITIZENSHIP

OR PLACE

OF

ORGANIZATION

United

States of

America

NUMBER OF

SHARES

BENEFICIALLY

OWNED BY EACH

REPORTING

PERSON WITH

5. SOLE

VOTING

POWER 0 **SHARED** 6. VOTING **POWER** 0 **SOLE** 7. DISPOSITIVE **POWER** 0 **SHARED** 8. DISPOSITIVE **POWER** 0 **AGGREGATE AMOUNT** 9. BENEFICIALLY OWNED BY EACH **REPORTING PERSON** 0 **CHECK BOX IF** THE **AGGREGATE AMOUNT** 10.IN ROW (9) **EXCLUDES CERTAIN SHARES** (SEE **INSTRUCTIONS**) [_] **PERCENT** OF CLASS 11. REPRESENTED BY

AMOUNT IN ROW (9) 0%

TYPE OF REPORTING 12.PERSON (SEE INSTRUCTIONS) IN

CUSIP No. 74979C303

Item 1. (a). Name of Issuer:

RXi Pharmaceuticals Corporation

(b). Address of issuer's principal executive offices:

60 Prescott Street Worcester, MA 01605

Item 2. (a). Name of person filing:

RTW Investments, LLC RTW Master Fund, Ltd. Roderick Wong

(b). Address or principal business office or, if none, residence:

RTW Investments, LLC 1350 Avenue of the Americas, 28th Floor New York, New York 10019

RTW Master Fund, Ltd. c/o Walkers Corporate Services Limited Walker House 87 Mary Street George Town Grand Cayman KY1-9005 Cayman Islands

Roderick Wong c/o RTW Investments, LLC 1350 Avenue of the Americas, 28th Floor New York, New York 10019

(c). Citizenship:

RTW Investments, LLC – Delaware RTW Master Fund, Ltd. – Cayman Islands Roderick Wong – United States of America

(d). Title of class of securities:

Common Stock, \$0.0001 par value

(e). CUSIP No.:

74979C303

Item 3. If This Statement is filed pursuant to §§.240.13d-1(b) or 240.13d-2(b), or (c), check whether the person filing is a
(a)[_]Broker or dealer registered under section 15 of the Act (15 U.S.C. 78o).
(b)[_]Bank as defined in section 3(a)(6) of the Act (15 U.S.C. 78c).
(c)[_]Insurance company as defined in section 3(a)(19) of the Act (15 U.S.C. 78c).
(d)[_]Investment company registered under section 8 of the Investment Company Act of 1940 (15 U.S.C. 80a-8).
(e)[_] An investment adviser in accordance with § 240.13d-1(b)(1)(ii)(E);
(f)[_] An employee benefit plan or endowment fund in accordance with § 240.13d-1(b)(1)(ii)(F);
(g)[_]A parent holding company or control person in accordance with §240.13d-1(b)(1)(ii)(G);
(h)[_]A savings association as defined in Section 3(b) of the Federal Deposit Insurance Act (12 U.S.C.1813);
(i) [_] A church plan that is excluded from the definition of an investment company under section 3(c)(14) of the Investment Company Act of 1940 (15 U.S.C. 80a-3);
(j)[_]A non-U.S. institution in accordance with §240.13d-1(b)(1)(ii)(J);
Group, in accordance with $\$240.13d-1(b)(1)(ii)(K)$. If filing as a non-U.S. institution in accordance with $\$240.13d-1(b)(1)(ii)(J)$, please specify the type of institution:
Item 4. Ownership.
Provide the following information regarding the aggregate number and percentage of the class of securities of the issuer identified in Item 1.
(a) Amount beneficially owned:
RTW Investments, LLC – 0 RTW Master Fund, Ltd. – 0 Roderick Wong – 0
(b) Percent of class:
RTW Investments, LLC – 0% RTW Master Fund, Ltd. – 0% Roderick Wong – 0%

(c) Number of shares as to which the person has:	
(i) Sole power to vote or to direct the vote	,
RTW Investments, LLC -0 RTW Master Fund, Ltd. -0 Roderick Wong -0	
(ii) Shared power to vote or to direct the vote	,
RTW Investments, LLC – 0 RTW Master Fund, Ltd. – 0 Roderick Wong – 0	
(iii) Sole power to dispose or to direct the disposition of	,
RTW Investments, LLC – 0 RTW Master Fund, Ltd. – 0 Roderick Wong – 0	
(iv) Shared power to dispose or to direct the disposition of	
RTW Investments, LLC – 0 RTW Master Fund, Ltd. – 0	

Instruction: For computations regarding securities which represent a right to acquire an underlying security see §240.13d-3(d)(1).

Item 5. Ownership of Five Percent or Less of a Class.

Roderick Wong – 0

If this statement is being filed to report the fact that as of the date hereof the reporting person has ceased to be the beneficial owner of more than five percent of the class of securities, check the following [X].

Item 6. Ownership of More Than Five Percent on Behalf of Another Person.

If any other person is known to have the right to receive or the power to direct the receipt of dividends from, or the proceeds from the sale of, such securities, a statement to that effect should be included in response to this item and, if such interest relates to more than 5 percent of the class, such person should be identified. A listing of the shareholders of an investment company registered under the Investment Company Act of 1940 or the beneficiaries of employee benefit plan, pension fund or endowment fund is not required.

N/A

Item Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on by the 7. Parent Holding Company or Control Person.

If a parent holding company or control person has filed this schedule, pursuant to Rule 13d-1(b)(1)(ii)(G), so indicate under Item 3(g) and attach an exhibit stating the identity and the Item 3 classification of the relevant subsidiary. If a parent holding company or control person has filed this schedule pursuant to Rule 13d-1(c) or Rule 13d-1(d), attach an exhibit stating the identification of the relevant subsidiary.

N/A

Item 8. Identification and Classification of Members of the Group.

If a group has filed this schedule pursuant to \$240.13d-1(b)(1)(ii)(J), so indicate under Item 3(j) and attach an exhibit stating the identity and Item 3 classification of each member of the group. If a group has filed this schedule pursuant to Rule 13d-1(c) or Rule 13d-1(d), attach an exhibit stating the identity of each member of the group. N/A

Item 9. Notice of Dissolution of Group.

Notice of dissolution of a group may be furnished as an exhibit stating the date of the dissolution and that all further filings with respect to transactions in the security reported on will be filed, if required, by members of the group, in their individual capacity. See Item 5.

N/A

Item 10. Certification.

By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect.

SIGNATURE

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.

October 3, 2014 (Date)

RTW INVESTMENTS, LLC*

By:/s/ Roderick Wong
By: Roderick Wong
Title: Managing Member
RTW MASTER FUND,
LTD.
By:/s/ Roderick Wong
By: Roderick Wong
Title: Director
RODERICK WONG*

By:/s/ Roderick Wong

* The Reporting Person disclaims beneficial ownership in the common stock reported herein except to the extent of his pecuniary interest therein.

The original statement shall be signed by each person on whose behalf the statement is filed or his authorized representative. If the statement is signed on behalf of a person by his authorized representative other than an executive officer or general partner of the filing person, evidence of the representative's authority to sign on behalf of such person shall be filed with the statement, provided, however, that a power of attorney for this purpose which is already on file with the Commission may be incorporated by reference. The name and any title of each person who signs the statement shall be typed or printed beneath his signature.

Note. Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. See s.240.13d-7 for other parties for whom copies are to be sent.

Attention. Intentional misstatements or omissions of fact constitute Federal criminal violations (see 18 U.S.C. 1001).

Exhibit A AGREEMENT

The undersigned agree that this Schedule 13G dated October 3, 2014 relating to the Common Stock, \$0.0001 par value, of RXi Pharmaceuticals Corporation shall be filed on behalf of the undersigned.

RTW INVESTMENTS, LLC

By:/s/ Roderick Wong
By: Roderick Wong
Title: Managing Member
RTW MASTER FUND,
LTD.
By:/s/ Roderick Wong
By: Roderick Wong

By: Roderick Wong Title: Director RODERICK WONG

By:/s/ Roderick Wong