502390169 06/19/2013

PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Anastasia Khvorova	08/07/2012
William Salomon	08/07/2012
Joanne Kamens	08/06/2012
Dmitry Samarsky	09/04/2012
Tod M. Woolf	07/31/2012
James Cardia	07/26/2012

RECEIVING PARTY DATA

Name:	RXi Pharmaceuticals Corporation
Street Address:	60 Prescott Street
City:	Worcester
State/Country:	MASSACHUSETTS
Postal Code:	01605

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	13069780

CORRESPONDENCE DATA

Fax Number: 6176468646

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

617-646-8000 Phone:

patents_OonaJ@wolfgreenfield.com Email:

Correspondent Name: Oona M. Johnstone Address Line 1: 600 Atlantic Avenue Address Line 2: Wolf Greenfield

Address Line 4: Boston, MASSACHUSETTS 02210

ATTORNEY DOCKET NUMBER: R0659.70021US00

REEL: 030643 FRAME: 0001

PATENT

NAME OF SUBMITTER:	Oona M. Johnstone
Signature:	/Oona M. Johnstone/
Date:	06/19/2013

Total Attachments: 42

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> PATENT REEL: 030643 FRAME: 0002

For good and valuable consideration, the receipt of which is hereby acknowledged, I, the undersigned Assignor, hereby:

- Sell, assign and transfer to RXi Pharmaceuticals Corporation, a Delaware Corporation, having a place of business at 60 Prescott Street; Worcester, Massachusetts 01605, its successors, assigns and legal representatives, all hereinafter referred to as the Assignee, my entire right, title and interest for the United States and all foreign countries, in and to any and all inventions and designs which are disclosed in the application for United States Letters Patent filed in the United States Patent and Trademark Office on March 23, 2011 under No. 13/069,780, bearing Attorney Docket No. R0659.70021US00, and entitled REDUCED SIZE SELF-DELIVERING RNAI COMPOUNDS, and in and to the application and all corresponding non-provisional, divisional, continuing, substitute, renewal, reissue and all other applications for Letters Patent, utility models, industrial designs or similar intellectual property rights which have been or shall be filed in the United States, internationally, and in any foreign country, including but not limited to China, Japan and Korea, on any of the inventions; and in and to all original and reissued patents which have been or shall be issued in the United States or any other jurisdiction on the inventions, including the right to apply for patent rights in each foreign country and all rights to priority, including the right to claim priority for China, Japan and Korea, as well as the right to sue in its own name and recover damages for past infringement of any United States Letters Patent and foreign patent;
- 2. Agree that the Assignee may apply for and receive Letters Patent and utility model and industrial design registrations for the inventions in its own name; and when requested, without charge to but at the expense of the Assignee, I agree to carry out in good faith the intent and purpose of this assignment, by executing all non-provisional, divisional, continuing, substitute, renewal, reissue, and all other patent, utility model and industrial design applications on any and all the inventions, by executing all rightful oaths, assignments, powers of attorney and other papers, by communicating to the Assignee all facts known to me relating to the inventions and the history thereof, and generally by doing everything reasonably possible which the Assignee shall consider desirable for aiding in securing and maintaining proper protection for the inventions and for vesting title to the inventions and all applications for patents and all patents on the inventions, in the Assignee:
- 3. Request the Director of the United States Patent and Trademark Office and non-US patent authorities to issue the Letters Patent to the Assignee;
- 4. Authorize and request Wolf, Greenfield & Sacks, P.C. to supply any missing patent/application identification information or correct any errors in the patent/application identification information provided above, whether discovered prior to or after recordation;
- 5. Covenant with the Assignee that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made to others by me and that full right to convey the same as herein expressed is possessed by me; and
- 6. Appoint Assignee, through its designee, my attorney-in-fact to execute, in my name and on my behalf, any and all documents required to effectuate this Assignment, specifically including, but not limited to, those documents specified above and any necessary corrective assignments.

This instrument is executed under seal and signed under the pains and penalties of perjury under the laws of the United States of America.

Attorney Docket No. R0659.70021US00 2304068.1

1.7.2012	Lefve
Date Inventor:	Anastasia Khvorova
Address:	10 Rocklawn Road
	Westborough, MA 01581
Citizenship:	US
COMMONWEALTH OF MASSACHUSETTS	
COUNTY OF WARVEY :	
On this day of, 1010 personally appeared Anastasia Khvorova	, before me, the undersigned notary public, , proved to me through satisfactory evidence of
identification, which were MANACONTO CONTROLL	= ·
to be the person who signed the preceding or attached or	

SEAL

My commission expires:

JOHN J. O'NEIL, JR.

Notary Public. Commonwealth of Massachusetts
My Commission Expires December 28, 2018

to me that the contents of the document are truthful and accurate to the best of (his) (her) knowledge

and belief and acknowledged to me that (he) (she) signed it voluntarily for its stated purpose.

Notary Public

Date Inventor:	William Salomon
Address:	210 Mountain Street East
	Apt. 278
	Worcester, Massachusetts 01606
Citizenship:	·
Olizensinp.	
COMMONWEALTH OF MASSACHUSETTS	
COUNTY OF:	
On this day of	hafara waa kha uundarainnad watawu wuhlia
	, before me, the undersigned notary public,
personally appeared William Salomon	
identification, which were	
to be the person who signed the preceding or attached to me that the contents of the document are truthful and	
and belief and acknowledged to me that (he) (she) sign	
and belief and acknowledged to the that (he) (she) sign	ed it voluntarily for its stated purpose.
SEAL	
Notary Public	
,	
My commission expires:	

Date	Inventor:	Joanne Kamens
	Address:	21 Wessex Road
		Newton, MA 02459
	Citizenship:	US
COMMONWEALTH OF I	MASSACHUSETTS	
COUNTY OF	<u>:</u>	
On this d		, before me, the undersigned notary public,
personally appeared	:	_, proved to me through satisfactory evidence of
identification, which were		
	•	document in my presence and swore or affirmed
		accurate to the best of (his) (her) knowledge ed it voluntarily for its stated purpose.
and belief and acknowled	aged to me that they (she) sight	ed it voluntarily for its stated purpose.
SEAL		
-	Notary Public	
My commission expir	es:	

Date	Inventor:	Dmitry Samarsky
	Address:	15 Wayside Road
		Westborough, MA 01581
	Citizenship:	US
COMMONWEALTH OF	MASSACHUSETTS	
COUNTY OF	<u> </u>	
On this	day of	before me, the undersigned netery public
On this personally appeared		, before me, the undersigned notary public, , proved to me through satisfactory evidence of
identification, which we	-	_, proved to the through satisfactory evidence of
·		document in my presence and swore or affirmed
		accurate to the best of (his) (her) knowledge
and belief and acknowl	edged to me that (he) (she) signe	ed it voluntarily for its stated purpose.
SEAL		
	Notary Public	
My commission eyr	nires:	

Page 5 of 7

Date	Inventor	: Tod M. Woolf
	Address	: 14 Babe Ruth Drive
		Sudbury, MA 01776-1942
	Citizenship	: US
COMMONWEALTH O	F MASSACHUSETTS	
COUNTY OF	:	
On this		, before me, the undersigned notary public,
		, proved to me through satisfactory evidence of
identification, which we	ere	,
to be the person who s	signed the preceding or attached	document in my presence and swore or affirmed
to me that the contents	s of the document are truthful and	d accurate to the best of (his) (her) knowledge
and belief and acknow	ledged to me that (he) (she) sign	ned it voluntarily for its stated purpose.
0541		
SEAL		
	Notary Public	
My commission exp	pires:	

Page 6 of 7

Date	Invent	or: James Cardia
	Addres	ss: 11 Bacon Street
		Franklin, MA 02038
	Citizensh	ip: US
COMMONWEALTH O	F MASSACHUSETTS	
COUNTY OF	:	
On this		, before me, the undersigned notary public,
personally appeared	James Cardia	, proved to me through satisfactory evidence of
identification, which we	ere	,
•		ed document in my presence and swore or affirmed
to me that the contents	of the document are truthful a	and accurate to the best of (his) (her) knowledge
and belief and acknowl	ledged to me that (he) (she) si	gned it voluntarily for its stated purpose.
SEAL		
OL/ L	Notary Public	· · · · · · · · · · · · · · · · · · ·
My commission exp	pires:	

Page 7 of 7

For good and valuable consideration, the receipt of which is hereby acknowledged, I, the undersigned Assignor, hereby:

- Sell, assign and transfer to RXi Pharmaceuticals Corporation, a Delaware 1. Corporation, having a place of business at 60 Prescott Street; Worcester, Massachusetts 01605, its successors, assigns and legal representatives, all hereinafter referred to as the Assignee, my entire right, title and interest for the United States and all foreign countries, in and to any and all inventions and designs which are disclosed in the application for United States Letters Patent filed in the United States Patent and Trademark Office on March 23, 2011 under No. 13/069,780, bearing Attorney Docket No. R0659.70021US00, and entitled REDUCED SIZE SELF-DELIVERING RNAI COMPOUNDS, and in and to the application and all corresponding non-provisional, divisional, continuing, substitute, renewal, reissue and all other applications for Letters Patent, utility models, industrial designs or similar intellectual property rights which have been or shall be filed in the United States, internationally, and in any foreign country, including but not limited to China, Japan and Korea, on any of the inventions; and in and to all original and reissued patents which have been or shall be issued in the United States or any other jurisdiction on the inventions, including the right to apply for patent rights in each foreign country and all rights to priority, including the right to claim priority for China, Japan and Korea, as well as the right to sue in its own name and recover damages for past infringement of any United States Letters Patent and foreign patent;
- 2. Agree that the Assignee may apply for and receive Letters Patent and utility model and industrial design registrations for the inventions in its own name; and when requested, without charge to but at the expense of the Assignee, I agree to carry out in good faith the intent and purpose of this assignment, by executing all non-provisional, divisional, continuing, substitute, renewal, reissue, and all other patent, utility model and industrial design applications on any and all the inventions, by executing all rightful oaths, assignments, powers of attorney and other papers, by communicating to the Assignee all facts known to me relating to the inventions and the history thereof, and generally by doing everything reasonably possible which the Assignee shall consider desirable for aiding in securing and maintaining proper protection for the inventions and for vesting title to the inventions and all applications for patents and all patents on the inventions, in the Assignee;
- 3. Request the Director of the United States Patent and Trademark Office and non-US patent authorities to issue the Letters Patent to the Assignee;
- 4. Authorize and request Wolf, Greenfield & Sacks, P.C. to supply any missing patent/application identification information or correct any errors in the patent/application identification information provided above, whether discovered prior to or after recordation;
- 5. Covenant with the Assignee that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made to others by me and that full right to convey the same as herein expressed is possessed by me; and
- 6. Appoint Assignee, through its designee, my attorney-in-fact to execute, in my name and on my behalf, any and all documents required to effectuate this Assignment, specifically including, but not limited to, those documents specified above and any necessary corrective assignments.

This instrument is executed under seal and signed under the pains and penalties of perjury under the laws of the United States of America.

Attorney Docket No. R0659.70021US00 2304068.1

Date Inventor:	Anastasia Khvorova
Address:	10 Rocklawn Road
	Westborough, MA 01581
Citizenship:	US
COMMONWEALTH OF MASSACHUSETTS	
COUNTY OF:	
	, before me, the undersigned notary public,
personally appeared Anastasia Khvorova identification, which were	_, proved to me through satisfactory evidence of
to be the person who signed the preceding or attached or	, document in my presence and swore or affirmed
to me that the contents of the document are truthful and	
and belief and acknowledged to me that (he) (she) signed	` ' ` '
SEAL	
Notary Public	
My commission expires:	

8/7/2012

Inventor: William Salomon

Address: 210 Mountain Street East

Apt. 278

Worcester, Massachusetts 01606

Citizenship: US

COMMONWEALTH OF MASSACHUSETTS COUNTY OF Worcestly:
On this day of,,,,, before me, the undersigned notary public, personally appeared William Salomon, proved to me through satisfactory evidence of
identification, which were driver's livens,
to be the person who signed the preceding or attached document in my presence and swore or affirmed
to me that the contents of the document are truthful and accurate to the best of (his) (her) knowledge
and belief and acknowledged to me that (he) (she) signed it voluntarily for its stated purpose.

SEAL

Notary Public

My commission expires:

4/20/18

Date	Inventor:	Joanne Kamens
	Address:	21 Wessex Road
		Newton, MA 02459
	Citizenship:	US
COMMONWEALTH OF	MASSACHUSETTS	
COUNTY OF	·	
On this	day of	hafara ma the undersioned nates while
personally appeared	day of,,	, before me, the undersigned notary public, , proved to me through satisfactory evidence of
identification, which wer		_, proved to the through satisfactory evidence of
•		document in my presence and swore or affirmed
to me that the contents	of the document are truthful and	accurate to the best of (his) (her) knowledge
and belief and acknowle	edged to me that (he) (she) signe	ed it voluntarily for its stated purpose.
SEAL		
SEAL	Notary Public	
	rectary i dollo	
My commission exp	ires:	

Page 4 of 7

Date	Inventor:	Dmitry Samarsky
	Address:	15 Wayside Road
		Westborough, MA 01581
	Citizenship:	US
COMMONWEALTH OF	MASSACHUSETTS	
COUNTY OF	<u> </u>	
On this		, before me, the undersigned notary public,
personally appeared _		_, proved to me through satisfactory evidence of
identification, which were		document in my presence and swore or affirmed
		accurate to the best of (his) (her) knowledge
		ed it voluntarily for its stated purpose.
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SEAL		
	Notary Public	
My commission expi	res:	
•		

Date		Inventor:	Tod M. Woolf
		Address:	14 Babe Ruth Drive
			Sudbury, MA 01776-1942
		Citizenship:	US
COMMONWEALTH C	NE MASSA	CULICETTO	
COUNTY OF	T IVIASSAU	лпиоетто	
COUNTY OF		•	
On this	_ day of		, before me, the undersigned notary public,
personally appeared		Tod M. Woolf	_, proved to me through satisfactory evidence of
identification, which w		***************************************	,
to be the person who	signed the	preceding or attached o	document in my presence and swore or affirmed
to me that the content	s of the doo	cument are truthful and	accurate to the best of (his) (her) knowledge
and belief and acknow	/ledged to r	ne that (he) (she) signe	ed it voluntarily for its stated purpose.
OF AL			
SEAL		Nata Date	
		Notary Public	
My commission ex	pires:		
•			

Page 6 of 7

Date	Inventor:	James Cardia
	Address:	11 Bacon Street
		Franklin, MA 02038
	Citizenship:	US
COMMONWEALTH O	F MASSACHUSETTS	
COUNTY OF		
On this	d af	hadana was dha sada ba da da da da da
		, before me, the undersigned notary public,
	ere	_, proved to me through satisfactory evidence of
		document in my presence and swore or affirmed
		accurate to the best of (his) (her) knowledge
and belief and acknow	ledged to me that (he) (she) signe	ed it voluntarily for its stated purpose.
0.55		
SEAL	Natara Dahii	
	Notary Public	
My commission ex	pires:	

For good and valuable consideration, the receipt of which is hereby acknowledged, I, the undersigned Assignor, hereby:

- Sell, assign and transfer to RXi Pharmaceuticals Corporation, a Delaware 1. Corporation, having a place of business at 60 Prescott Street; Worcester, Massachusetts 01605, its successors, assigns and legal representatives, all hereinafter referred to as the Assignee, my entire right, title and interest for the United States and all foreign countries, in and to any and all inventions and designs which are disclosed in the application for United States Letters Patent filed in the United States Patent and Trademark Office on March 23, 2011 under No. 13/069,780, bearing Attorney Docket No. R0659.70021US00, and entitled REDUCED SIZE SELF-DELIVERING RNAI COMPOUNDS, and in and to the application and all corresponding non-provisional, divisional, continuing, substitute, renewal, reissue and all other applications for Letters Patent, utility models, industrial designs or similar intellectual property rights which have been or shall be filed in the United States, internationally, and in any foreign country, including but not limited to China, Japan and Korea, on any of the inventions; and in and to all original and reissued patents which have been or shall be issued in the United States or any other jurisdiction on the inventions, including the right to apply for patent rights in each foreign country and all rights to priority, including the right to claim priority for China, Japan and Korea, as well as the right to sue in its own name and recover damages for past infringement of any United States Letters Patent and foreign patent;
- 2. Agree that the Assignee may apply for and receive Letters Patent and utility model and industrial design registrations for the inventions in its own name; and when requested, without charge to but at the expense of the Assignee, I agree to carry out in good faith the intent and purpose of this assignment, by executing all non-provisional, divisional, continuing, substitute, renewal, reissue, and all other patent, utility model and industrial design applications on any and all the inventions, by executing all rightful oaths, assignments, powers of attorney and other papers, by communicating to the Assignee all facts known to me relating to the inventions and the history thereof, and generally by doing everything reasonably possible which the Assignee shall consider desirable for aiding in securing and maintaining proper protection for the inventions and for vesting title to the inventions and all applications for patents and all patents on the inventions, in the Assignee;
- 3. Request the Director of the United States Patent and Trademark Office and non-US patent authorities to issue the Letters Patent to the Assignee;
- 4. Authorize and request Wolf, Greenfield & Sacks, P.C. to supply any missing patent/application identification information or correct any errors in the patent/application identification information provided above, whether discovered prior to or after recordation;
- 5. Covenant with the Assignee that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made to others by me and that full right to convey the same as herein expressed is possessed by me; and
- 6. Appoint Assignee, through its designee, my attorney-in-fact to execute, in my name and on my behalf, any and all documents required to effectuate this Assignment, specifically including, but not limited to, those documents specified above and any necessary corrective assignments.

This instrument is executed under seal and signed under the pains and penalties of perjury under the laws of the United States of America.

Attorney Docket No. R0659.70021US00 2304068.1

Date	Inventor:	Anastasia Khvorova
	Address:	10 Rocklawn Road
•		Westborough, MA 01581
	Citizenship:	US
COMMONWEALTH O	F MASSACHUSETTS	
COUNTY OF	•	
On this		, before me, the undersigned notary public,
personally appeared identification, which we		_, proved to me through satisfactory evidence of
ŕ		document in my presence and swore or affirmed
· · · · · · · · · · · · · · · · · · ·	-	accurate to the best of (his) (her) knowledge
		ed it voluntarily for its stated purpose.
SEAL		
	Notary Public	
My commission exp	oires:	
•	•	

Date	Inventor:	William Salomon
	Address:	210 Mountain Street East
		Apt. 278
		Worcester, Massachusetts 01606
	Citizenship:	US
	•	
COMMONWEALTH O		
COUNTY OF	· · · · · · · · · · · · · · · · · · ·	
On this	day of ,	, before me, the undersigned notary public,
		_, proved to me through satisfactory evidence of
identification, which we	ere	
•		document in my presence and swore or affirmed
		accurate to the best of (his) (her) knowledge
and belief and acknowl	edged to me that (ne) (she) sign	ed it voluntarily for its stated purpose.
SEAL		
	Notary Public	
My commission ex		

8/6/2012 Date

Inventor: Joanne Kamens

Address: 21 Wessex Road

Newton, MA 02459

Citizenship: US

COMMONWEALTH OF MASSACHUSETTS COUNTY OF
On this day of
personally appeared, proved to me through satisfactory evidence of
identification, which were Missachusetts Drivers License
to be the person who signed the preceding or attached document in my presence and swore or affirmed
to me that the contents of the document are truthful and accurate to the best of (his) (her) knowledge
and belief and acknowledged to me that (he) (she) signed it voluntarily for its stated purpose. MAURA L. TUCKER NOTARY PUBLIC Commonwealth of Massachusetts
SEAL My Commission Expires on October 26, 2018 Notary Public
My commission expires: October 26 2018

Attorney Docket No. R0659.70021US00 2304068.1

Page 4 of 7

Date	Inventor:	Dmitry Samarsky
	Address:	15 Wayside Road
		Westborough, MA 01581
	Citizenship:	US
COMMONWEALTH OF M	MASSACHUSETTS	
COUNTY OF	:	
On this de	nu of	hefere me the undersigned noteru nublic
On this da personally appeared	ay of,, Dmitry Samarsky	, before me, the undersigned notary public, , proved to me through satisfactory evidence of
identification, which were	Dillitry Camarsky	_, proved to me intough satisfactory evidence of
•	ed the preceding or attached of	document in my presence and swore or affirmed
to me that the contents of	the document are truthful and	accurate to the best of (his) (her) knowledge
and belief and acknowled	ged to me that (he) (she) signe	ed it voluntarily for its stated purpose.
SEAL		
SEAL _	Notary Public	· ·
My commission expire	es:	

Date Inventor:	Tod M. Woolf		
Address:	14 Babe Ruth Drive		
	Sudbury, MA 01776-1942		
Citizenship:	US		
COMMONWEALTH OF MASSACHUSETTS			
COUNTY OF :			
	, before me, the undersigned notary public,		
personally appeared Tod M. Woolf	_, proved to me through satisfactory evidence of		
identification, which were			
to be the person who signed the preceding or attached document in my presence and swore or affirmed to me that the contents of the document are truthful and accurate to the best of (his) (her) knowledge			
and belief and acknowledged to me that (he) (she) sign			
and belief and acknowledged to the that (he) (she) sign	ed it voluntarily for its stated purpose.		
SEAL			
Notary Public			
My commission expires:			

Page 6 of 7

Date	Inventor:	James Cardia
	Address:	11 Bacon Street
		Franklin, MA 02038
	Citizenship:	US
COMMONWEALTH OF I	MASSACHUSETTS	
COUNTY OF	:	
On this c	lay of,	, before me, the undersigned notary public,
personally appearedidentification, which were		_, proved to me through satisfactory evidence of
•		, document in my presence and swore or affirmed
		accurate to the best of (his) (her) knowledge
and belief and acknowled	dged to me that (he) (she) signe	ed it voluntarily for its stated purpose.
SEAL		
-	Notary Public	
My commission expir	es:	

For good and valuable consideration, the receipt of which is hereby acknowledged, I, the undersigned Assignor, hereby:

- Sell, assign and transfer to RXi Pharmaceuticals Corporation, a Delaware 1. Corporation, having a place of business at 60 Prescott Street; Worcester, Massachusetts 01605, its successors, assigns and legal representatives, all hereinafter referred to as the Assignee, my entire right, title and interest for the United States and all foreign countries, in and to any and all inventions and designs which are disclosed in the application for United States Letters Patent filed in the United States Patent and Trademark Office on March 23, 2011 under No. 13/069,780, bearing Attorney Docket No. R0659.70021US00, and entitled REDUCED SIZE SELF-DELIVERING RNAI COMPOUNDS, and in and to the application and all corresponding non-provisional, divisional, continuing, substitute, renewal, reissue and all other applications for Letters Patent, utility models, industrial designs or similar intellectual property rights which have been or shall be filed in the United States, internationally, and in any foreign country, including but not limited to China, Japan and Korea, on any of the inventions; and in and to all original and reissued patents which have been or shall be issued in the United States or any other jurisdiction on the inventions, including the right to apply for patent rights in each foreign country and all rights to priority, including the right to claim priority for China, Japan and Korea, as well as the right to sue in its own name and recover damages for past infringement of any United States Letters Patent and foreign patent;
- 2. Agree that the Assignee may apply for and receive Letters Patent and utility model and industrial design registrations for the inventions in its own name; and when requested, without charge to but at the expense of the Assignee, I agree to carry out in good faith the intent and purpose of this assignment, by executing all non-provisional, divisional, continuing, substitute, renewal, reissue, and all other patent, utility model and industrial design applications on any and all the inventions, by executing all rightful oaths, assignments, powers of attorney and other papers, by communicating to the Assignee all facts known to me relating to the inventions and the history thereof, and generally by doing everything reasonably possible which the Assignee shall consider desirable for aiding in securing and maintaining proper protection for the inventions and for vesting title to the inventions and all applications for patents and all patents on the inventions, in the Assignee;
- 3. Request the Director of the United States Patent and Trademark Office and non-US patent authorities to issue the Letters Patent to the Assignee;
- 4. Authorize and request Wolf, Greenfield & Sacks, P.C. to supply any missing patent/application identification information or correct any errors in the patent/application identification information provided above, whether discovered prior to or after recordation;
- 5. Covenant with the Assignee that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made to others by me and that full right to convey the same as herein expressed is possessed by me; and
- 6. Appoint Assignee, through its designee, my attorney-in-fact to execute, in my name and on my behalf, any and all documents required to effectuate this Assignment, specifically including, but not limited to, those documents specified above and any necessary corrective assignments.

This instrument is executed under seal and signed under the pains and penalties of perjury under the laws of the United States of America.

Attorney Docket No. R0659.70021US00 2304068.1

Date	Inventor:	Anastasia Khvorova
	Address:	10 Rocklawn Road
		Westborough, MA 01581
	Citizenship:	US
COMMONWEALTH OF	MASSACHUSETTS	
COUNTY OF	•	
On this	day of	before me, the undersigned notary public
		, before me, the undersigned notary public,
· ·		_, proved to me through satisfactory evidence of
identification, which we		
•	-	document in my presence and swore or affirmed
to me that the contents of the document are truthful and accurate to the best of (his) (her) knowledge		
and belief and acknowle	edged to me that (he) (she) signe	ed it voluntarily for its stated purpose.
SEAL		
	Notary Public	
My commission exp	oires:	

Date	Inventor:	William Salomon
	Address:	210 Mountain Street East
		Apt. 278
		Worcester, Massachusetts 01606
	Citizenship:	US
COMMONWEALTH OF	MASSACHUSETTS	
COUNTY OF	•	
On this		, before me, the undersigned notary public,
personally appeared	4 - 4 - 4 - 4 - 4 - 4 - 4 - 4 - 4 - 4 -	_, proved to me through satisfactory evidence of
identification, which we		
•	• •	document in my presence and swore or affirmed
		accurate to the best of (his) (her) knowledge
and belief and acknowle	edged to me that (he) (she) signe	ed it voluntarily for its stated purpose.
SEAL		
	Notary Public	
My commission exp	ires:	

Page 3 of 7

Date	Inv	entor:	Joanne Kamens
	Add	dress:	21 Wessex Road
			Newton, MA 02459
	Citizer	nship:	US
COMMONWEALTH OF	- MASSACHUSETTS		
COUNTY OF			
On this		,	, before me, the undersigned notary public,
personally appeared	Joanne Kamens		, proved to me through satisfactory evidence of
identification, which we		ached d	, locument in my presence and swore or affirmed
•	-		accurate to the best of (his) (her) knowledge
			d it voluntarily for its stated purpose.
			•
SEAL			<u> </u>
	Notary Public	;	
My commission exp	oires:		
,			,

	Citizenship: US		
COMMONWEALTH OF MASSACHUSETTS			
COUNTY OF Worcester:	COUNTY OF Worcester:		
On this day of September, 2012, before me, the undersigned notary public,	On this day of September, 2012, before me, the undersigned notary public,		
personally appeared Dmitry Samarsky, proved to me through satisfactory evidence of	personally appeared		
identification, which were Mass License,	identification, which were Mass License,		
to be the person who signed the preceding or attached document in my presence and swore or affirmed	to be the person who signed the preceding or attached document in my presence and swore or affirmed		
to me that the contents of the document are truthful and accurate to the best of (his) (her) knowledge			
and belief and acknowledged to me that (he) (she) signed it voluntarily for its stated purpose.	and belief and acknowledged to me that (he) (she) signed it voluntarily for its stated purpose.		
A	A • • • • • • • • • • • • • • • • • • •		
SEAL Lah h Guznan Notary Public	seal hear h Guznan		
Notary Public O	Notary Public O		
My commission expires: Mar. 14, 2019	My commission expires: Mac. 14, 2019		

Inventor: Dmitry Samarsky
Address: 15 Wayside Road

Westborough, MA 01581

Sep 04, 2012

Date Inventor:	Tod M. Woolf
Address:	14 Babe Ruth Drive
	Sudbury, MA 01776-1942
Citizenship:	US
COMMONWEALTH OF MASSACHUSETTS	
COUNTY OF:	
	The state of the s
	, before me, the undersigned notary public,
personally appeared Tod M. Woolf identification, which were	_, proved to me through satisfactory evidence of
to be the person who signed the preceding or attached	document in my presence and swore or affirmed
to me that the contents of the document are truthful and	
and belief and acknowledged to me that (he) (she) sign	ed it voluntarily for its stated purpose.
054	
SEAL Notary Public	
Notary Public	
My commission expires:	

Page 6 of 7

Date Invento	r: James Cardia
Address	s: 11 Bacon Street
	Franklin, MA 02038
Citizenship	o: US
COMMONWEALTH OF MASSACHUSETTS	
COUNTY OF:	
On this, day of,	, before me, the undersigned notary public,
personally appearedJames Cardia	, proved to me through satisfactory evidence of
identification, which were	,
to be the person who signed the preceding or attached	
to me that the contents of the document are truthful an	
and belief and acknowledged to me that (he) (she) sign	ned it voluntarily for its stated purpose.
SEAL	
Notary Public	
My commission expires:	

For good and valuable consideration, the receipt of which is hereby acknowledged, I, the undersigned Assignor, hereby:

- Sell, assign and transfer to RXi Pharmaceuticals Corporation, a Delaware 1. Corporation, having a place of business at 60 Prescott Street; Worcester, Massachusetts 01605, its successors, assigns and legal representatives, all hereinafter referred to as the Assignee, my entire right, title and interest for the United States and all foreign countries, in and to any and all inventions and designs which are disclosed in the application for United States Letters Patent filed in the United States Patent and Trademark Office on March 23, 2011 under No. 13/069.780, bearing Attorney Docket No. R0659.70021US00, and entitled REDUCED SIZE SELF-DELIVERING RNAI COMPOUNDS, and in and to the application and all corresponding non-provisional, divisional, continuing, substitute, renewal, reissue and all other applications for Letters Patent, utility models, industrial designs or similar intellectual property rights which have been or shall be filed in the United States, internationally, and in any foreign country, including but not limited to China, Japan and Korea, on any of the inventions; and in and to all original and reissued patents which have been or shall be issued in the United States or any other jurisdiction on the inventions, including the right to apply for patent rights in each foreign country and all rights to priority, including the right to claim priority for China, Japan and Korea, as well as the right to sue in its own name and recover damages for past infringement of any United States Letters Patent and foreign patent;
- 2. Agree that the Assignee may apply for and receive Letters Patent and utility model and industrial design registrations for the inventions in its own name; and when requested, without charge to but at the expense of the Assignee, I agree to carry out in good faith the intent and purpose of this assignment, by executing all non-provisional, divisional, continuing, substitute, renewal, reissue, and all other patent, utility model and industrial design applications on any and all the inventions, by executing all rightful oaths, assignments, powers of attorney and other papers, by communicating to the Assignee all facts known to me relating to the inventions and the history thereof, and generally by doing everything reasonably possible which the Assignee shall consider desirable for aiding in securing and maintaining proper protection for the inventions and for vesting title to the inventions and all applications for patents and all patents on the inventions, in the Assignee;
- 3. Request the Director of the United States Patent and Trademark Office and non-US patent authorities to issue the Letters Patent to the Assignee;
- 4. Authorize and request Wolf, Greenfield & Sacks, P.C. to supply any missing patent/application identification information or correct any errors in the patent/application identification information provided above, whether discovered prior to or after recordation;
- 5. Covenant with the Assignee that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made to others by me and that full right to convey the same as herein expressed is possessed by me; and
- 6. Appoint Assignee, through its designee, my attorney-in-fact to execute, in my name and on my behalf, any and all documents required to effectuate this Assignment, specifically including, but not limited to, those documents specified above and any necessary corrective assignments.

This instrument is executed under seal and signed under the pains and penalties of perjury under the laws of the United States of America.

Date	Inventor:	Anastasia Khvorova
	Address:	10 Rocklawn Road
		Westborough, MA 01581
	Citizenship:	US
COMMONWEALTH OF	MASSACHUSETTS	
COUNTY OF	·	
On this	day of	, before me, the undersigned notary public,
		, proved to me through satisfactory evidence of
identification, which we		
to be the person who s	igned the preceding or attached	document in my presence and swore or affirmed
		accurate to the best of (his) (her) knowledge
and belief and acknowl	edged to me that (he) (she) sign	ed it voluntarily for its stated purpose.
SEAL		
32	Notary Public	
My commission exp	pires:	<u></u>

Page 2 of 7

Date	Inventor:	William Salomon
	Address:	210 Mountain Street East
		Apt. 278
		Worcester, Massachusetts 01606
	Citizenship:	·
	•	
COMMONWEALTH OF	FMASSACHUSETTS	
On this	day of,	, before me, the undersigned notary public,
personally appeared		_, proved to me through satisfactory evidence of
identification, which we	re	,
to be the person who si	gned the preceding or attached	document in my presence and swore or affirmed
		accurate to the best of (his) (her) knowledge
and belief and acknowle	edged to me that (he) (she) sign	ed it voluntarily for its stated purpose.
SEAL		
OLAL	Notary Public	
My commission exp	vires:	

Page 3 of 7

Date	Inventor:	Joanne Kamens
	Address:	21 Wessex Road
		Newton, MA 02459
	Citizenship:	US
COMMONWEALTH OF	MASSACHUSETTS	
COUNTY OF		
On this	lav of	, before me, the undersigned notary public,
personally appeared		, proved to me through satisfactory evidence of
identification, which were		-
to be the person who sig	ned the preceding or attached o	document in my presence and swore or affirmed
		accurate to the best of (his) (her) knowledge
and belief and acknowled	dged to me that (he) (she) signe	ed it voluntarily for its stated purpose.
SEAL		
OL/IL	Notary Public	
	·	
My commission expir	es:	<u></u>

Date	Inventor:	Dmitry Samarsky
	Address:	15 Wayside Road
		Westborough, MA 01581
	Citizenship:	US
COMMONWEALTH O	F MASSACHUSETTS	
COUNTY OF		
On this	day of	, before me, the undersigned notary public,
		_, proved to me through satisfactory evidence of
identification, which we	ere	
		document in my presence and swore or affirmed
		accurate to the best of (his) (her) knowledge
and belief and acknowl	ledged to me that (he) (she) signe	ed it voluntarily for its stated purpose.
SEAL		
	Notary Public	
My commission exp	pires:	

Page 5 of 7

Inventor: Tod M. Woolf

Address: 14 Babe Ruth Drive

Sudbury, MA 01776-1942

Citizenship: US

COMMONWEALTH OF MASSACHUSETTS

COUNTY OF Worcester

day of Tod M. Woolf personally appeared

__, &\dagged_, before me, the undersigned notary public,

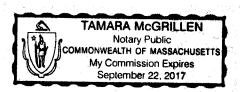
, proved to me through satisfactory evidence of

identification, which were

to be the person who signed the preceding or attached document in my presence and swore or affirmed to me that the contents of the document are truthful and accurate to the best of (his) (her) knowledge and belief and acknowledged to me that (he) (she) signed it voluntarily for its stated purpose.

SEAL

My commission expires:



Date Inventor:	James Cardia
Address:	11 Bacon Street
	Franklin, MA 02038
Citizenship:	US
COMMONWEALTH OF MASSACHUSETTS	
COUNTY OF:	
	, before me, the undersigned notary public,
	_, proved to me through satisfactory evidence of
identification, which were	,
to be the person who signed the preceding or attached	
to me that the contents of the document are truthful and	accurate to the best of (his) (her) knowledge
and belief and acknowledged to me that (he) (she) sign	ed it voluntarily for its stated purpose.
OFAL	
SEAL Note: Dublic	
Notary Public	
My commission expires:	

For good and valuable consideration, the receipt of which is hereby acknowledged, I, the undersigned Assignor, hereby:

- Sell, assign and transfer to **RXi Pharmaceuticals Corporation**, a Delaware 1. Corporation, having a place of business at 60 Prescott Street; Worcester, Massachusetts 01605, its successors, assigns and legal representatives, all hereinafter referred to as the Assignee, my entire right, title and interest for the United States and all foreign countries, in and to any and all inventions and designs which are disclosed in the application for United States Letters Patent filed in the United States Patent and Trademark Office on March 23, 2011 under No. 13/069,780, bearing Attorney Docket No. R0659.70021US00, and entitled REDUCED SIZE SELF-DELIVERING RNAI COMPOUNDS, and in and to the application and all corresponding non-provisional, divisional, continuing, substitute, renewal, reissue and all other applications for Letters Patent, utility models, industrial designs or similar intellectual property rights which have been or shall be filed in the United States, internationally, and in any foreign country, including but not limited to China, Japan and Korea, on any of the inventions; and in and to all original and reissued patents which have been or shall be issued in the United States or any other jurisdiction on the inventions, including the right to apply for patent rights in each foreign country and all rights to priority, including the right to claim priority for China, Japan and Korea, as well as the right to sue in its own name and recover damages for past infringement of any United States Letters Patent and foreign patent;
- 2. Agree that the Assignee may apply for and receive Letters Patent and utility model and industrial design registrations for the inventions in its own name; and when requested, without charge to but at the expense of the Assignee, I agree to carry out in good faith the intent and purpose of this assignment, by executing all non-provisional, divisional, continuing, substitute, renewal, reissue, and all other patent, utility model and industrial design applications on any and all the inventions, by executing all rightful oaths, assignments, powers of attorney and other papers, by communicating to the Assignee all facts known to me relating to the inventions and the history thereof, and generally by doing everything reasonably possible which the Assignee shall consider desirable for aiding in securing and maintaining proper protection for the inventions and for vesting title to the inventions and all applications for patents and all patents on the inventions, in the Assignee;
- 3. Request the Director of the United States Patent and Trademark Office and non-US patent authorities to issue the Letters Patent to the Assignee;
- 4. Authorize and request Wolf, Greenfield & Sacks, P.C. to supply any missing patent/application identification information or correct any errors in the patent/application identification information provided above, whether discovered prior to or after recordation;
- 5. Covenant with the Assignee that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made to others by me and that full right to convey the same as herein expressed is possessed by me; and
- 6. Appoint Assignee, through its designee, my attorney-in-fact to execute, in my name and on my behalf, any and all documents required to effectuate this Assignment, specifically including, but not limited to, those documents specified above and any necessary corrective assignments.

This instrument is executed under seal and signed under the pains and penalties of perjury under the laws of the United States of America.

Attorney Docket No. R0659.70021US00 2304068.1

Date	Inventor:	Anastasia Khvorova
	Address:	10 Rocklawn Road
		Westborough, MA 01581
	Citizenship:	US
COMMONWEALTH OF	MASSACHUSETTS	
COUNTY OF	·	
On this		, before me, the undersigned notary public,
•		_, proved to me through satisfactory evidence of
identification, which we		,
·	· -	document in my presence and swore or affirmed
		accurate to the best of (his) (her) knowledge
and belief and acknowle	edged to me that (he) (she) signe	ed it voluntarily for its stated purpose.
OFAL		
SEAL	Notary Public	
	Notary Public	
My commission exp	ires:	

Date Inventor:	William Salomon
Address:	210 Mountain Street East
	Apt. 278
	Worcester, Massachusetts 01606
Citizenship:	US
COMMONWEALTH OF MASSACHUSETTS	
COUNTY OF:	
On this day of ,	hafara ma, the undersigned nature public
, , , , , , , , , , , , , , , , , , , ,	, before me, the undersigned notary public,, proved to me through satisfactory evidence of
identification, which were	_, provou to me through satisfactory evidence of
to be the person who signed the preceding or attached of	document in my presence and swore or affirmed
to me that the contents of the document are truthful and	
and belief and acknowledged to me that (he) (she) signed	ed it voluntarily for its stated purpose.
SEAL	
Notary Public	
My commission expires:	·

Date Inventor:	Joanne Kamens
Address:	21 Wessex Road
	Newton, MA 02459
Citizenship:	US
COMMONWEALTH OF MASSACHUSETTS	
COUNTY OF:	
On this, day of,	before me, the undersigned netery public
	, before me, the undersigned notary public, , proved to me through satisfactory evidence of
identification, which were	, protest to the through called actory of taches of
to be the person who signed the preceding or attached	document in my presence and swore or affirmed
to me that the contents of the document are truthful and	accurate to the best of (his) (her) knowledge
and belief and acknowledged to me that (he) (she) sign	ed it voluntarily for its stated purpose.
SEAL	
Notary Public	
My commission expires:	

Date	Inventor:	Dmitry Samarsky
	Address:	15 Wayside Road
		Westborough, MA 01581
	Citizenship:	US
COMMONWEALTH OF	MASSACHUSETTS	
COUNTY OF	<u> </u>	
On this	day of ,	, before me, the undersigned notary public,
personally appeared _		, proved to me through satisfactory evidence of
identification, which wer	e	
		document in my presence and swore or affirmed
		accurate to the best of (his) (her) knowledge
and belief and acknowle	edged to me that (he) (she) signe	ed it voluntarily for its stated purpose.
SEAL		
	Notary Public	
My commission exp	iroo	

Date		Inventor:	Tod M. Woolf
		Address:	14 Babe Ruth Drive
			Sudbury, MA 01776-1942
	C	itizenship:	US
COMMONWEALTH OF	MASSACHUSETTS		
COUNTY OF	<u>:</u>		
On this	day of	,	, before me, the undersigned notary public,
personally appeared	Tod M. Woo	lf	, proved to me through satisfactory evidence of
identification, which we			,
			document in my presence and swore or affirmed
			accurate to the best of (his) (her) knowledge
and belief and acknowle	edged to me that (he)	(she) signe	ed it voluntarily for its stated purpose.
SEAL			
	Notary P	ublic	
My commission exp	ires:		

26 July 2012

Inventor: James Cardia

Address: 11 Bacon Street

Franklin, MA 02038

Citizenship: US

COMMONWEALTH OF MASSACHUSETTS
COUNTY OF Worcester:

Worteston -

On this <u>261</u> day of <u>Tuly</u>, <u>2012</u>, before me, the undersigned notary public, personally appeared , proved to me through satisfactory evidence of

identification, which were MA Divine's Lichel

to be the person who signed the preceding or attached document in my presence and swore or affirmed to me that the contents of the document are truthful and accurate to the best of (his) (her) knowledge and belief and acknowledged to me that (he) (she) signed it voluntarily for its stated purpose.

SEAL

Notary Public

My commission expires:

TAMARA McGRILLEN

Notary Public

COMMONWEALTH OF MASSACHUSETTS

My Commission Expires

September 22, 2017

Attorney Docket No. R0659.70021US00 2304068.1

Page 7 of 7