505140631 10/15/2018

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5187396

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:	257 SIMARANO DRIVE	
Internal Address:	SUITE 101	
City:	MARLBOROUGH	
State/Country:	MASSACHUSETTS	
Postal Code:	01752	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16022652

CORRESPONDENCE DATA

Fax Number: (617)646-8646

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 6176468000

Email: patents_OonaJ@wolfgreenfield.com,

Annie.Fearnley@wolfgreenfield.com

Correspondent Name: OONA M. JOHNSTONE

Address Line 1: WOLF, GREENFIELD & SACKS, P.C.

Address Line 2: 600 ATLANTIC AVENUE

Address Line 4: BOSTON, MASSACHUSETTS 02210

ATTORNEY DOCKET NUMBER:	R0659.70021US01
NAME OF SUBMITTER:	OONA M. JOHNSTONE
SIGNATURE: /Oona M. Johnstone/	

PATENT 505140631 REEL: 047228 FRAME: 0869

DATE SIGNED: 10/15/2018 **Total Attachments: 42** source=R065970021US01-ASI-OMJ#page1.tif source=R065970021US01-ASI-OMJ#page2.tif source=R065970021US01-ASI-OMJ#page3.tif source=R065970021US01-ASI-OMJ#page4.tif source=R065970021US01-ASI-OMJ#page5.tif source=R065970021US01-ASI-OMJ#page6.tif source=R065970021US01-ASI-OMJ#page7.tif source=R065970021US01-ASI-OMJ#page8.tif source=R065970021US01-ASI-OMJ#page9.tif source=R065970021US01-ASI-OMJ#page10.tif source=R065970021US01-ASI-OMJ#page11.tif source=R065970021US01-ASI-OMJ#page12.tif source=R065970021US01-ASI-OMJ#page13.tif source=R065970021US01-ASI-OMJ#page14.tif source=R065970021US01-ASI-OMJ#page15.tif source=R065970021US01-ASI-OMJ#page16.tif source=R065970021US01-ASI-OMJ#page17.tif source=R065970021US01-ASI-OMJ#page18.tif source=R065970021US01-ASI-OMJ#page19.tif source=R065970021US01-ASI-OMJ#page20.tif source=R065970021US01-ASI-OMJ#page21.tif source=R065970021US01-ASI-OMJ#page22.tif source=R065970021US01-ASI-OMJ#page23.tif source=R065970021US01-ASI-OMJ#page24.tif source=R065970021US01-ASI-OMJ#page25.tif source=R065970021US01-ASI-OMJ#page26.tif source=R065970021US01-ASI-OMJ#page27.tif source=R065970021US01-ASI-OMJ#page28.tif source=R065970021US01-ASI-OMJ#page29.tif source=R065970021US01-ASI-OMJ#page30.tif source=R065970021US01-ASI-OMJ#page31.tif source=R065970021US01-ASI-OMJ#page32.tif source=R065970021US01-ASI-OMJ#page33.tif source=R065970021US01-ASI-OMJ#page34.tif source=R065970021US01-ASI-OMJ#page35.tif source=R065970021US01-ASI-OMJ#page36.tif source=R065970021US01-ASI-OMJ#page37.tif source=R065970021US01-ASI-OMJ#page38.tif source=R065970021US01-ASI-OMJ#page39.tif source=R065970021US01-ASI-OMJ#page40.tif source=R065970021US01-ASI-OMJ#page41.tif source=R065970021US01-ASI-OMJ#page42.tif

> PATENT REEL: 047228 FRAME: 0870

ASSIGNMENT

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

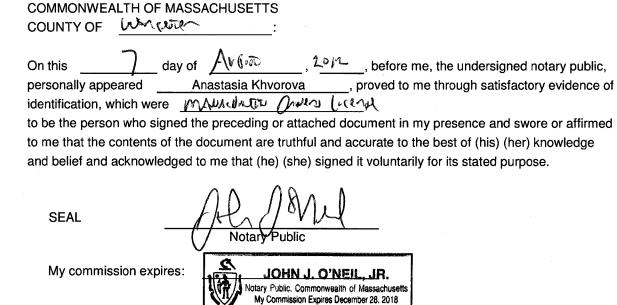
- Sell, assign and transfer to RXi Pharmaceuticals Corporation, a Delaware Corporation, having a place of business at 60 Prescott Street; Worcester, Massachusetts 01605, its successors, assigns and legal representatives, all hereinafter referred to as the Assignee, my entire right, title and interest 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

Page 1 of 7

8.7.2012		Refue	
Date	Inventor:	Anastasia Khvorova	
	Address:	10 Rocklawn Road	
		Westborough, MA 01581	
	Citizenship:	US	



Page 2 of 7

Date	Inventor:	William Salomon
	Address:	210 Mountain Street East
		Apt. 278
		Worcester, Massachusetts 01606
	Citizenship:	,
	Gilizeriship.	05
COMMONWEALTH O	F MASSACHUSETTS	
COUNTY OF		
O 11.	dec. of	
		, before me, the undersigned notary public,
		_, proved to me through satisfactory evidence of
	ere	
•		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.
0.5.11		
SEAL		
	Notary Public	
My commission ex	nirae:	
wy commission ex	μιεσ.	

Page 3 of 7

Date	Inventor:	Joanne Kamens
	Address:	21 Wessex Road
		Newton, MA 02459
	Citizenship:	US
COMMONWEALTH O	F 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	ere	,
•	· · · · ·	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) sign	ed it voluntarily for its stated purpose.
SEAL		
	Notary Public	·
My commission ex	pires:	

Page 4 of 7

Date Inventor:	Dmitry Samarsky
Address:	15 Wayside Road
	Westborough, MA 01581
Citizenship:	US
COMMONWEALTH OF MASSACHUSETTS	
COUNTY OF:	
On this day of .	before me, the undersigned petant nublic
	, before me, the undersigned notary public, , proved to me through satisfactory evidence of
identification, which were	_, proved to the timodelli 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	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:	

Page 5 of 7

Date		Inventor:	Tod M. Woolf
		Address:	14 Babe Ruth Drive
			Sudbury, MA 01776-1942
		Citizenship:	US
COMMONWEALTH O		TTC	
	- IVIASSAUTUSE I	115	
COUNTY OF		-	
On this	day of	, ,	, before me, the undersigned notary public,
personally appeared	Tod M. V	Noolf	_, proved to me through satisfactory evidence of
identification, which we	re		,
to be the person who s	igned the precedir	ng or attached of	document in my presence and swore or affirmed
to me that the contents	of the document a	are truthful and	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.
OFAL			
SEAL	NI-4-	- D 1-P-	. <u>. </u>
	inotai	ry Public	
My commission exp	oires:	***	

Page 6 of 7

Date	Inventor:	James Cardia
	Address:	11 Bacon Street
		Franklin, MA 02038
	Citizenship:	US
COMMONWEALTH OF COUNTY OF	MASSACHUSETTS :	
personally appeared _ identification, which were to be the person who sig	James Cardia a ned the preceding or attached of	, before me, the undersigned notary public,, 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 acknowle	dged to me that (he) (she) signe	ed it voluntarily for its stated purpose.
SEAL		
	Notary Public	
My commission expi	res:	

Page 7 of 7

ASSIGNMENT

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

Page 1 of 7

Date	Inventor	: Anastasia Khvorova
	Address	: 10 Rocklawn Road
		Westborough, MA 01581
	Citizenship	: US
COMMONWEALTH C	DF MASSACHUSETTS	
COUNTY OF	:	
On this	_ day of,	, before me, the undersigned notary public,
personally appeared		, proved to me through satisfactory evidence of
identification, which w	***************************************	,
		document in my presence and swore or affirmed
		d accurate to the best of (his) (her) knowledge
and belief and acknov	vledged to me that (he) (she) sigr	ned it voluntarily for its stated purpose.
OFAL		
SEAL	Notani Dublia	
	Notary Public	
My commission ex	cpires:	<u> </u>

8/7/2012

Inventor: William Salomon

Address: 210 Mountain Street East

Apt. 278

Worcester, Massachusetts 01606

Citizenship: US

COMMONWE	ALTH OF	MASSACH	USETTS
COUNTY OF	(1)	coales	

On this 7 1	day of August,	2012, before me, the undersigned notary public,
personally appeared _	William Salomon	, proved to me through satisfactory evidence of
identification, which were	e driver's or	and 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) 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 ,	, before me, the undersigned notary public,
personally appeared Joanne Kamens	
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	· · · · · · · -
and belief and acknowledged to me that (he) (she) sign	ed it voluntarily for its stated purpose.
SEAL	
Notary Public	
• • • • • • • • • • • • • • • • • • • •	
My commission expires:	

Page 4 of 7

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,
personally appeared		_, 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 acknow	rledged to me that (he) (she) sign	ed it voluntarily for its stated purpose.
SEAL		
OLAL .	Notary Public	
My commission ex	pires:	<u> </u>

Page 5 of 7

Date	Inventor:	Tod M. Woolf
	Address:	14 Babe Ruth Drive
		Sudbury, MA 01776-1942
	Citizenship:	US
COMMONWEALTH OF	- MASSACHUSETTS	
COUNTY OF	:	
On this	day of,,	, before me, the undersigned notary public,
personally appeared _		, proved to me through satisfactory evidence of
identification, which wer	re	
	-	locument 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 expi		

Page 6 of 7

Date		Inventor:	James Cardia
		Address:	11 Bacon Street
			Franklin, MA 02038
		Citizenship:	US
COMMONWEALTH O	F MASSACHUS	SETTS	
COUNTY OF		 :	
On this	_ day of		, before me, the undersigned notary public,
personally appeared	James	s Cardia	_, proved to me through satisfactory evidence of
identification, which we	ere		,
to be the person who s	signed the prece	ding or attached	document in my presence and swore or affirmed
to me that the contents	s of the docume	nt are truthful and	accurate to the best of (his) (her) knowledge
and belief and acknow	rledged to me that	at (he) (she) signe	ed it voluntarily for its stated purpose.
SEAL			
SEAL	No	otary Public	
My commission ex	pires:		

Page 7 of 7

ASSIGNMENT

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

Page 1 of 7

Date Inventor:	Anastasia Khvorova
Address:	10 Rocklawn Road
	Westborough, MA 01581
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 of	
to me that the contents of the document are truthful and and belief and acknowledged to me that (he) (she) signed	• • • • • •
and belief and acknowledged to the that (he) (she) signe	to it voluntarily for its stated purpose.
SEAL	
Notary Public	
My commission expires:	

Page 2 of 7

Date	Inventor:	William Salomon
	Address:	210 Mountain Street East
		Apt. 278
		Worcester, Massachusetts 01606
	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		
•		document in my presence and swore or affirmed
		accurate to the best of (his) (her) knowledge
and belief and ackno	wledged to me that (he) (she) signo	ed it voluntarily for its stated purpose.
SEAL		
SEAL	Notary Public	
My commission	avnirae:	

8/6/2012

Inventor: Joanne Kamens

Address: 21 Wessex Road

Newton, MA 02459

Citizenship: US

COMMONWEALTH OF MASSACHUSETTS COUNTY OF:
On this day of
personally appeared Joanne Kamens , proved to me through satisfactory evidence o identification, which were Missochusetts 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

Date	Inventor:	Dmitry Samarsky
	Address:	15 Wayside Road
		Westborough, MA 01581
	Citizenship:	US
COMMONWEALTH O	F MASSACHUSETTS	
COUNTY OF	•	
On this	day of ,	hafara ma the undersigned natary public
		, 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 acknow	ledged to me that (he) (she) signe	ed it voluntarily for its stated purpose.
0541		
SEAL	Notary Public	
	Notary Public	
My commission ex	pires:	

Page 5 of 7

Date Inventor:	Tod M. Woolf
Address:	14 Babe Ruth Drive
	Sudbury, MA 01776-1942
Citizenship:	US
COMMONWEALTH OF MASSACHUSETTS	
COUNTY OF:	
On this day of	before me, the undereigned notary public
	, before me, the undersigned notary public, , proved to me through satisfactory evidence of
identification, which were	_, provou to me among meaner actor, emeaner em
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.
SEAL	
Notary Public	
My commission expires:	

Page 6 of 7

Date	Inven	tor: James Cardia
	Addre	ess: 11 Bacon Street
		Franklin, MA 02038
	Citizensh	hip: US
COMMONWEALTH O	F MASSACHUSETTS	
COUNTY OF	:	
On this	day of ,	, before me, the undersigned notary public,
personally appeared	James Cardia	, proved to me through satisfactory evidence of
identification, which we	ere	,
to be the person who s	igned the preceding or attach	ned 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 acknow	ledged to me that (he) (she) s	signed it voluntarily for its stated purpose.
SEAL		
SLAL	Notary Public	
My commission exp	pires:	

ASSIGNMENT

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

Page 1 of 7

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	_, 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	
and belief and acknowledged to me that (he) (she) sign	
	,
SEAL	
Notary Public	
My commission expires:	

Page 2 of 7

Date	Inventor:	William Salomon
	Address:	210 Mountain Street East
		Apt. 278
		Worcester, Massachusetts 01606
	Citizenship:	US
COMMONWEALTH OF	MASSACHUSETTS	
COUNTY OF	:	
O 4h-1-	· ·	hafara ma the undersigned natury public
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
to me that the contents	of the document are truthful and	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		
SEAL	Notary Public	
	rioung i dano	
My commission exp	oires:	

Page 3 of 7

Date Inventor:	Joanne Kamens
Address:	21 Wessex Road
	Newton, MA 02459
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	,
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SEAL	
Notary Public	
Mu commission evaluas	
My commission expires:	

Page 4 of 7

Citizenship: US
COMMONWEALTH OF MASSACHUSETTS
COUNTY OF Worcester:
•
On this day of September, 2012, before me, the undersigned notary public,
personally appeared Dmitry Samarsky, proved to me through satisfactory evidence of
identification, which were Mass 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.
SEAL LIAN h. (ZUZDAN
Notary Public O
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	•	
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On this personally appeared	day of,,	, before me, the undersigned notary public, , proved to me through satisfactory evidence of
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and belief and acknowle	edged to me that (he) (she) sign	ed it voluntarily for its stated purpose.
SEAL		
SEAL	Notary Public	
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My commission exp		

Page 6 of 7

Date	Inventor:	James Cardia
	Address:	11 Bacon Street
		Franklin, MA 02038
	Citizenship:	US
COMMONWEALTH OF	MASSACHUSETTS	
COUNTY OF		
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On this personally appeared		, before me, the undersigned notary public,
identification, which wer		_, proved to me through satisfactory evidence of
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		accurate to the best of (his) (her) knowledge
		d it voluntarily for its stated purpose.
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SEAL	Notes Date	
	Notary Public	
My commission expi	res:	
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Page 7 of 7

ASSIGNMENT

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

Page 1 of 7

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,
personally appeared	Anastasia Khvorova	_, proved to me through satisfactory evidence of
	re	
·	_	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 exp	pires:	

Page 2 of 7

Date	Inventor:	William Salomon
	Address:	210 Mountain Street East
		Apt. 278
		Worcester, Massachusetts 01606
	Citizenship:	US
COMMONWEALTH OF	F MASSACHUSETTS	
On this	,	, before me, the undersigned notary public,
		_, proved to me through satisfactory evidence of
identification, which we	re	,
		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 acknowl	edged to me that (he) (she) sign	ed it voluntarily for its stated purpose.
SEAL		
SEAL	Notary Public	
My commission exp	oires:	

Page 3 of 7

Date	Inventor:	Joanne Kamens
	Address:	21 Wessex Road
		Newton, MA 02459
	Citizenship:	US
COMMONWEALTH OF MASSACHUSETTS	3	
COUNTY OF:	:	
On this day 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 of	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) signe	ed it voluntarily for its stated purpose.
SEAL		
Notary F	Public	
riotaly i	un	
My commission expires:		

Page 4 of 7

Date	Inventor:	Dmitry Samarsky
	Address:	15 Wayside Road
		Westborough, MA 01581
	Citizenship:	US
COMMONWEALTH O	F MASSACHUSETTS	
COUNTY OF	:	
On this	,,,	, before me, the undersigned notary public,
personally appeared	Dmitry Samarsky	_, 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 acknow	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:

personally appeared

day of _____, ___, before me, the undersigned notary public, ____, proved to me through satisfactory evidence of

identification, which were _US | Chase Overt

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:

TAMARA McGRILLEN Notary Public COMMONWEALTH OF MASSACHUSETTS My Commission Expires September 22, 2017

Date		Inventor:	James Cardia
		Address:	11 Bacon Street
			Franklin, MA 02038
		Citizenship:	US
COMMONWEALTH OF	F MASSACHUSETT	rs	
COUNTY OF		_:	
On this	day of		, before me, the undersigned notary public,
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to be the person who s	igned the preceding	or attached	document in my presence and swore or affirmed
to me that the contents	of the document ar	e truthful and	accurate to the best of (his) (her) knowledge
and belief and acknowl	ledged to me that (h	ne) (she) signo	ed it voluntarily for its stated purpose.
054			
SEAL			
	Notary	Public	
My commission exp	pires:		

ASSIGNMENT

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- 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.

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Attorney Docket No. R0659.70021US00 2304068.1

Page 1 of 7

Date	Inventor:	Anastasia Khvorova
	Address:	10 Rocklawn Road
		Westborough, MA 01581
	Citizenship:	US
COMMONWEALTH O	F MASSACHUSETTS	
COUNTY OF		
		, before me, the undersigned notary public,
		_, proved to me through satisfactory evidence of
dentification, which we		, 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 ex	niros:	
My COMMISSION CX	.p.i.co.	

Date Inventor	William Salomon
Address	: 210 Mountain Street East
	Apt. 278
	Worcester, Massachusetts 01606
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	d 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.
054	
SEAL	
Notary Public	

Date	Inventor:	Joanne Kamens
	Address:	21 Wessex Road
		Newton, MA 02459
	Citizenship:	US
COMMONWEALTH OF		
COUNTY OF	•	
On this	day of ,	, 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
and belief and acknowle	agea to me that (ne) (sne) signe	ed it voluntarily for its stated purpose.
SEAL		
	Notary Public	
My commission expi	res:	

Date	Inventor:	Dmitry Samarsky
	Address:	15 Wayside Road
		Westborough, MA 01581
	Citizenship:	US
COMMONWEALTH O	F MASSACHUSETTS	
COUNTY OF	<u> </u>	
On this	day of,,	, before me, the undersigned notary public,
personally appeared	Dmitry Samarsky	_, 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 acknow	ledged to me that (he) (she) signe	ed it voluntarily for its stated purpose.
SEAL		
	Notary Public	
My commission exp	oires:	

Page 5 of 7

Date	Inventor:	Tod M. Woolf
	Address:	14 Babe Ruth Drive
		Sudbury, MA 01776-1942
	Citizenship:	US
COMMONWEALTH OF	: MASSACHUSETTS	
COUNTY OF	<u> </u>	
On this	day of	, before me, the undersigned notary public,
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to be the person who sig	gned the preceding or attached o	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		
Complete the second sec	Notary Public	
	•	
My commission exp	ires:	

26 July 2012 Date

Inventor: James Cardia

Address: 11 Bacon Street

Franklin, MA 02038

Citizenship: US

COMMONWEA	LTH	OF M	MASSA	CHUS	ETTS
			i .		

COUNTY OF Worcester

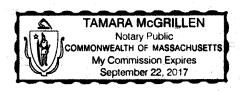
On this 26^{1-} day of 5^{1-} day of $5^{$

identification, which were MA Drives 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.

SEAL

My commission expires:



Attorney Docket No. R0659.70021US00 2304068.1

Page 7 of 7