

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

EPAS ID: PAT6268726

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
TAKASHI NAKAI	06/03/2016
JOEL MOORE	08/12/2016
NICHOLAS ROBERT PERL	06/06/2016
RAJESH R. IYENGAR	06/10/2016
ARA MERMERIAN	08/10/2016
G-YOON JAMIE IM	08/10/2016
THOMAS WAI-HO LEE	06/10/2016
COLLEEN HUDSON	08/09/2016
GLEN ROBERT RENNIE	06/08/2016
PAUL ALLAN RENHOWE	06/07/2016
JOON JUNG	08/10/2016
XIANG Y. YU	08/15/2016
JAMES EDWARD SHEPPECK	06/09/2016
KARTHIK IYER	06/09/2016
GEORGE TODD MILNE	06/06/2016
KIMBERLY KAFADAR LONG	06/10/2016
MARK G. CURRIE	07/11/2016
TIMOTHY CLAUDE BARDEN	08/10/2016
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	IRONWOOD PHARMACEUTICALS, INC.
<b>Street Address:</b>	301 BINNEY STREET
<b>City:</b>	CAMBRIDGE
<b>State/Country:</b>	MASSACHUSETTS
<b>Postal Code:</b>	02142
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	16817830
<b>CORRESPONDENCE DATA</b>	

**Fax Number:** (617)607-9200

***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:** (617) 449-6500

**Email:** cgiordani@mccarter.com

**Correspondent Name:** MCCARTER & ENGLISH, LLP

**Address Line 1:** 265 FRANKLIN STREET

**Address Line 4:** BOSTON, MASSACHUSETTS 02110

<b>ATTORNEY DOCKET NUMBER:</b>	127553-01610
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<b>NAME OF SUBMITTER:</b>	ZHONGYU WANG
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<b>SIGNATURE:</b>	/Zhongyu Wang, #71771/
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<b>DATE SIGNED:</b>	08/26/2020
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**Total Attachments: 13**

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**ASSIGNMENT**

WHEREAS, We,

**Takashi NAKAI**, a citizen of Japan, residing at 7 Gardner Street, Newton, MA 02458;

**Joel MOORE**, a citizen of the United States, residing at 4 Cherry Street, Lexington, MA 02421;

**Nicholas Robert PERL**, a citizen of the United States, residing at 7 Gibbens Street, Somerville, MA 02143;

**Rajesh R. IYENGAR**, a citizen of the United States, residing at 23 Stratford Road, West Newton, MA 02465;

**Ara MERMERIAN**, a citizen of the United States, residing at 50 Milton Street, Waltham, MA 02453;

**G-Yoon Jamie IM**, a citizen of Korea, residing at 931 Massachusetts Avenue, Apt. 604, Cambridge, MA 02139;

**Thomas Wai-Ho LEE**, a citizen of the United States, residing at 665 Lowell Street, Unit 60, Lexington, MA 02420;

**Colleen HUDSON**, a citizen of the United States, residing at 146 Clifton St. #7, Malden, MA 02148;

**Glen Robert RENNIE**, a citizen of the United States, residing at 46 Elmwood Street #2, Somerville, MA 02144;

**James JIA**, a citizen of the United States, residing at 4 Jeanette Avenue, Belmont, MA 02478;

**Paul Allan RENHOWE**, a citizen of the United States, residing at 19 Skyview Road, Sudbury, MA 01776;

**Joon JUNG**, a citizen of the United States, residing at 111 Wendell Road, Newton, MA 02459;

**Timothy Claude BARDEN**, a citizen of the United States, residing at 19 Intervale Road, Salem, MA 01970;

**Xiang Y. YU**, a citizen of the United States, residing at 2 Whispering Way, Acton, MA 01720;

**James Edward SHEPPECK II**, a citizen of the United States, residing at 356 Crittenden Drive, Newtown, PA 18940;

**Karthik IYER**, a citizen of India, residing at 30 Cambridge Park Drive, Apt. 6121, Cambridge, MA 02140;

**George Todd MILNE**, a citizen of the United States, residing at 169 Mason Terrace, Brookline, MA 02446;

**Kimberly Kafadar LONG**, a citizen of the United States, residing at 2 Jamaica Place, Unit 2, Boston, MA 02130; and

**Mark G. CURRIE**, a citizen of the United States, residing at 197 8<sup>th</sup> Street, Boston, MA 02129,

(collectively **INVENTORS**) have invented certain new and useful improvements in **sGC STIMULATORS**, for which We have executed an application for Letters Patent of the United States, U.S. Serial No. 14/775,954, filed on September 14, 2015; and

**WHEREAS, IRONWOOD PHARMACEUTICALS, INC.**, having offices at 301 Binney Street, Cambridge, MA 02142, is desirous of obtaining the entire right, title and interest in, to and under said improvements and said application;

NOW, THEREFORE, in exchange for good and valuable consideration, the receipt of which We hereby acknowledge, We, **INVENTORS**, do hereby assign, transfer and set over to said **IRONWOOD PHARMACEUTICALS, INC.**, its successors, legal representatives and assigns, the entire right, title and interest in, to and under the said improvements, and the said applications, including the right to claim priority to said applications, and all divisions, continuations and continuations-in-part thereof, and all Letters Patent which may be granted thereon and all reexaminations, reissues, renewals and extensions thereof, and all applications for Letters Patent which may hereafter be filed for said improvements in any country or countries foreign to the United States, and all Letters Patent which may be granted for said improvements in any country or countries foreign to the United States and all reexaminations, reissues, renewals and extensions thereof; and We hereby authorize and request the Commissioner of Patents of the United States, and any Official of any country or countries foreign to the United States, whose duty it is to issue patents on applications as aforesaid, to issue all Letters Patent for said improvements to the said **IRONWOOD PHARMACEUTICALS, INC.**, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

AND WE HEREBY covenant that We have full right to convey the entire interest herein assigned, and that We have not executed, and will not execute, any agreement in conflict herewith;

AND WE HEREBY further covenant and agree that We and our heirs, representatives and successors, if any, will communicate to the said **IRONWOOD PHARMACEUTICALS, INC.**, its successors, legal representatives and assigns, any facts known to us respecting said improvements, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing and reissue applications, make all rightful oaths and generally do everything possible to aid the said **IRONWOOD PHARMACEUTICALS, INC.**, its successors, legal representatives and assigns, to obtain and enforce proper patent protection for said improvements in all countries.

AND WE HEREBY grant Heslin Rothenberg Farley & Mesiti P.C. the power to insert on this assignment any further indication which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

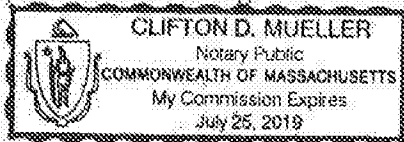
IN TESTIMONY WHEREOF, I hereunto set my hand and seal this 3<sup>rd</sup> day of June, 2016.

Takashi NAKAI

STATE OF MASSACHUSETTS )

COUNTY OF ~~<CLICK & ENTER>~~ ) ss.: Middlesex

On this 3<sup>rd</sup> day of June, 2016, before me personally came Takashi NAKAI, to me known and known to me to be the person of that name, who signed and sealed the foregoing instrument, and he acknowledged the same to be his free act and deed.



Clifton D. Mueller  
Notary Public

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this 12<sup>th</sup> day of August, 2016.

Joel MOORE

STATE OF MASSACHUSETTS )

COUNTY OF ~~<CLICK & ENTER>~~ ) ss.: Middlesex

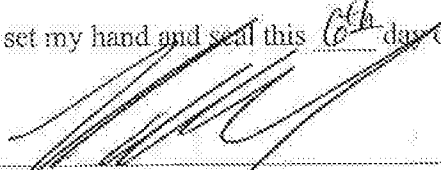
On this 12<sup>th</sup> day of August, 2016, before me personally came Joel MOORE, to me known and known to me to be the person of that name, who signed and sealed the foregoing instrument, and he acknowledged the same to be his free act and deed.



LAURA A. RYAN  
Notary Public  
Commonwealth of Massachusetts  
My Commission Expires  
October 14, 2016

Laura A. Ryan  
Notary Public

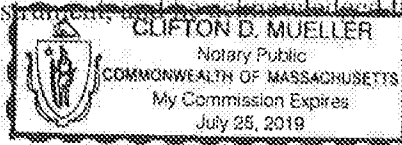
IN TESTIMONY WHEREOF, I hereunto set my hand and seal this 6<sup>th</sup> day of June, 2016.

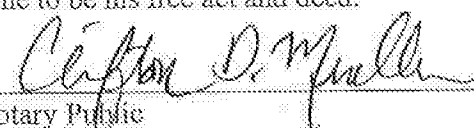
  
\_\_\_\_\_  
Nicholas Robert PERL

STATE OF MASSACHUSETTS )


) ss.: Middlesex  
COUNTY OF <CLICK & ENTER>

On this 6<sup>th</sup> day of June, 2016, before me personally came **Nicholas Robert PERL**, to me known and known to me to be the person of that name, who signed and sealed the foregoing instrument, and he acknowledged the same to be his free act and deed.



  
\_\_\_\_\_  
Notary Public

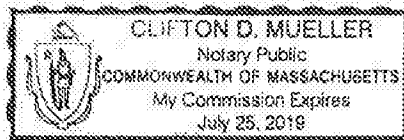
IN TESTIMONY WHEREOF, I hereunto set my hand and seal this 10<sup>th</sup> day of June, 2016.

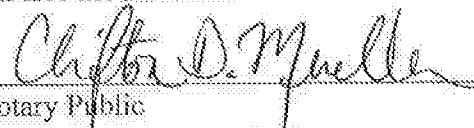
  
\_\_\_\_\_  
Rajesh R. IYENGAR

STATE OF MASSACHUSETTS )

) ss.: Middlesex  
COUNTY OF <CLICK & ENTER>

On this 10<sup>th</sup> day of June, 2016, before me personally came **Rajesh R. IYENGAR**, to me known and known to me to be the person of that name, who signed and sealed the foregoing instrument, and he acknowledged the same to be his free act and deed.



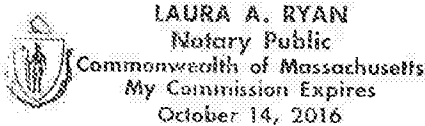
  
\_\_\_\_\_  
Notary Public

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this 10 day of August, 2016.

*Ara Mermerian*  
Ara MERMERIAN

STATE OF MASSACHUSETTS )  
 ) ss.: Middlesex  
COUNTY OF <CLICK & ENTER> )

On this 10 day of August, 2016, before me personally came Ara MERMERIAN, to me known and known to me to be the person of that name, who signed and sealed the foregoing instrument, and he acknowledged the same to be his free and deed.



his free will and deed.

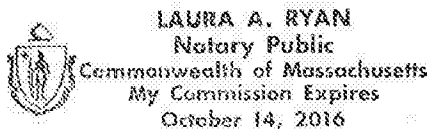
*Laura A. Jan*  
 \_\_\_\_\_  
 Notary Public

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this 10<sup>th</sup> day of August, 2016.

G-Yoon Jamie IM

STATE OF MASSACHUSETTS )  
 ) ss.: Middlesex  
COUNTY OF <CLICK & ENTER> )

On this 10<sup>th</sup> day of August, 2016, before me personally came **G-Yoon Jamie IM**, to me known and known to me to be the person of that name, who signed and sealed the foregoing instrument, and he acknowledged the same to be his free act and deed.



his free act and deed.

Leticia A. Ryan  
Notary Public

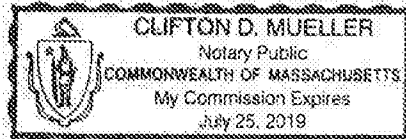
IN TESTIMONY WHEREOF, I hereunto set my hand and seal this 10<sup>th</sup> day of June, 2016.

Thomas Wai-Ho Lee  
Thomas Wai-Ho LEE

STATE OF MASSACHUSETTS )

) ss.: Middlesex  
COUNTY OF <CLICK & ENTER>

On this 10<sup>th</sup> day of June, 2016, before me personally came **Thomas Wai-Ho LEE**, to me known and known to me to be the person of that name, who signed and sealed the foregoing instrument, and he acknowledged the same to be his free act and deed.



Clifton D. Mueller  
Notary Public

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this \_\_\_\_\_ day of \_\_\_\_\_, 2016.

\_\_\_\_\_  
Colleen HUDSON

STATE OF MASSACHUSETTS )

) ss.:  
COUNTY OF <CLICK & ENTER> )

On this \_\_\_\_\_ day of \_\_\_\_\_, 2016, before me personally came **Colleen HUDSON**, to me known and known to me to be the person of that name, who signed and sealed the foregoing instrument, and he acknowledged the same to be his free act and deed.

\_\_\_\_\_  
Notary Public



IN TESTIMONY WHEREOF, I hereunto set my hand and seal this \_\_\_\_ day of \_\_\_\_\_, 2016.

\_\_\_\_\_  
Thomas Wai-Ho LEE

STATE OF MASSACHUSETTS )  
 ) ss.:  
COUNTY OF <CLICK & ENTER> )

On this \_\_\_\_ day of \_\_\_\_\_, 2016, before me personally came Thomas Wai-Ho LEE, to me known and known to me to be the person of that name, who signed and sealed the foregoing instrument, and he acknowledged the same to be his free act and deed.

\_\_\_\_\_  
Notary Public

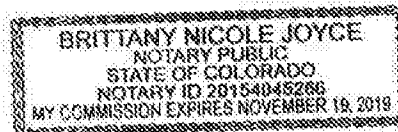
IN TESTIMONY WHEREOF, I hereunto set my hand and seal this 9 day of August, 2016.

\_\_\_\_\_  
Colleen HUDSON

Colorado  
STATE OF MASSACHUSETTS )  
 ) ss.:  
COUNTY OF <CLICK & ENTER> Adams

On this 9 day of August, 2016, before me personally came Colleen HUDSON, to me known and known to me to be the person of that name, who signed and sealed the foregoing instrument, and he acknowledged the same to be his free act and deed.

\_\_\_\_\_  
Notary Public

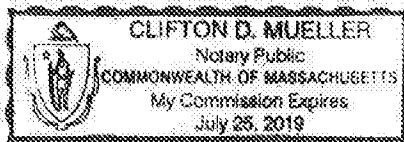


IN TESTIMONY WHEREOF, I hereunto set my hand and seal this 7<sup>th</sup> day of June, 2016.

*Paul Renhowe*  
Paul Allan RENHOWE

STATE OF MASSACHUSETTS )  
 ) ss. *Middlesex*  
COUNTY OF ~~CLICK & ENTER~~ )

On this 7<sup>th</sup> day of June, 2016, before me personally came **Paul Allan RENHOWE**, to me known and known to me to be the person of that name, who signed and sealed the foregoing instrument, and he acknowledged the same to be his free act and deed.



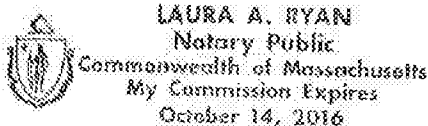
Chifton D. Myrland  
Notary Public

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this 10 day of August, 2016.

  
Joong JUNG

STATE OF MASSACHUSETTS )  
 ) ss.: Middlesex  
COUNTY OF <CLICK & ENTER> )

On this 10<sup>th</sup> day of August, 2016, before me personally came Joon JUNG, to me known and known to me to be the person of that name, who signed and sealed the foregoing instrument, and he acknowledged the same to be his free act and deed.



*Laura A. Garcia*  
Notary Public

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this 10<sup>th</sup> day of August, 2016.

Timothy Claude BARDEN

STATE OF MASSACHUSETTS )  
 ) ss. *Hiddleston*  
COUNTY OF <CLICK & ENTER> )

On this 10<sup>th</sup> day of August, 2016, before me personally came **Timothy Claude BARDEN**, to me known and known to me to be the person of that name, who signed and sealed the foregoing instrument, and he acknowledged the same to be his free act and deed.



LAURA A. RYAN  
Notary Public  
Commonwealth of Massachusetts  
My Commission Expires  
October 14, 2016

Notary Public

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this \_\_\_\_\_ day of \_\_\_\_\_, 2016.

Xiang Y. YU

[illegible]

On this \_\_\_\_\_ day of \_\_\_\_\_, 2016, before me personally came **Xiang Y. YU**, to me known and known to me to be the person of that name, who signed and sealed the foregoing instrument, and he acknowledged the same to be his free act and deed.

Notary Public

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this \_\_\_\_ day of \_\_\_\_\_, 2016.

\_\_\_\_\_  
Timothy Claude BARDEN

STATE OF MASSACHUSETTS )  
 ) ss.:  
COUNTY OF <CLICK & ENTER> )

On this \_\_\_\_ day of \_\_\_\_\_, 2016, before me personally came **Timothy Claude BARDEN**, to me known and known to me to be the person of that name, who signed and sealed the foregoing instrument, and he acknowledged the same to be his free act and deed.

\_\_\_\_\_  
Notary Public

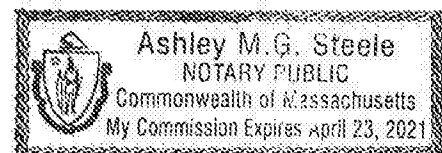
IN TESTIMONY WHEREOF, I hereunto set my hand and seal this 15<sup>th</sup> day of Aug., 2016.

\_\_\_\_\_  
Xiang Y. YU

STATE OF MASSACHUSETTS )  
 ) ss.:  
COUNTY OF <CLICK & ENTER> )

On this 15<sup>th</sup> day of August, 2016, before me personally came **Xiang Y. YU**, to me known and known to me to be the person of that name, who signed and sealed the foregoing instrument, and he acknowledged the same to be his free act and deed.

\_\_\_\_\_  
Notary Public



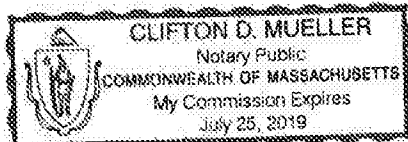
IN TESTIMONY WHEREOF, I hereunto set my hand and seal this 9<sup>th</sup> day of June, 2016.

James E. Shepck II  
James Edward SHEPPECK II

STATE OF PENNSYLVANIA

) ss.: Middlesex  
COUNTY OF <CLICK & ENTER>

On this 9<sup>th</sup> day of June, 2016, before me personally came James Edward SHEPPECK II, to me known and known to me to be the person of that name, who signed and sealed the foregoing instrument, and he acknowledged the same to be his free act and deed.



Clifton D. Mueller  
Notary Public

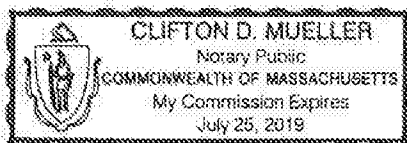
IN TESTIMONY WHEREOF, I hereunto set my hand and seal this 6<sup>th</sup> day of June, 2016.

Karthik Iyer  
Karthik IYER

STATE OF MASSACHUSETTS )

) ss.: Middlesex  
COUNTY OF <CLICK & ENTER>

On this 6<sup>th</sup> day of June, 2016, before me personally came Karthik IYER, to me known and known to me to be the person of that name, who signed and sealed the foregoing instrument, and he acknowledged the same to be his free act and deed.



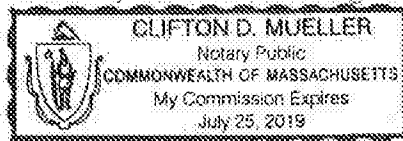
Clifton D. Mueller  
Notary Public

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this 6<sup>th</sup> day of June, 2016.

*George Todd Milne*  
George Todd MILNE

STATE OF MASSACHUSETTS )  
 ) ss.: Middlesex  
COUNTY OF ~~CLICK & ENTER~~ )

On this 6<sup>th</sup> day of June, 2016, before me personally came George Todd MILNE, to me known and known to me to be the person of that name, who signed and sealed the foregoing instrument, and he acknowledged the same to be his free act and deed.



Notary Public

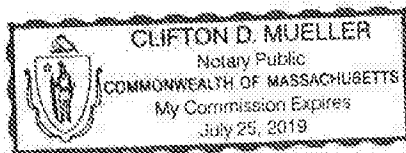
IN TESTIMONY WHEREOF, I hereunto set my hand and seal this 10<sup>th</sup> day of June, 2016.

Kimberly Kafadar LONG

STATE OF MASSACHUSETTS )  
COUNTY OF ~~CLICK & ENTER~~ ) *Middlesex*

On this 10<sup>th</sup> day of June, 2016, before me personally came Kimberly Kafadar

\_\_\_\_\_, to me known and known to me to be the person of that name, who signed and sealed the foregoing instrument, and he acknowledged the same to be his free act and deed.



Notary Public

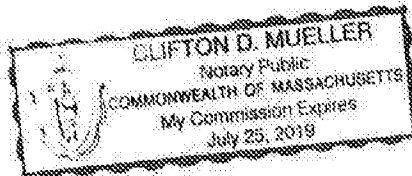
IN TESTIMONY WHEREOF, I hereunto set my hand and seal this 11<sup>th</sup> day of July, 2016.

Mark G. Currie  
Mark G. CURRIE

STATE OF MASSACHUSETTS

) ss.: Middlesex  
COUNTY OF ~~CLICK & ENTER~~

On this 11<sup>th</sup> day of July, 2016, before me personally came **Mark G. CURRIE**, to me known and known to me to be the person of that name, who signed and sealed the foregoing instrument, and he acknowledged the same to be his free act and deed.



Clifton D. Mueller  
Notary Public