

PATENT ASSIGNMENT COVER SHEET

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EPAS ID: PAT6050148

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
ANGELIKA FRETZEN	03/20/2013
BRIAN CALI	09/05/2013
RECEIVING PARTY DATA	
Name:	IRONWOOD PHARMACEUTICALS, INC.
Street Address:	301 BINNEY STREET
City:	CAMBRIDGE
State/Country:	MASSACHUSETTS
Postal Code:	02142
PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	16583500
CORRESPONDENCE DATA	
Fax Number:	
<i>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.</i>	
Phone:	2693377834
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Correspondent Name:	KELLY T. MURPHY
Address Line 1:	650 TRADE CENTRE WAY
Address Line 2:	SUITE 200
Address Line 4:	KALAMAZOO, MICHIGAN 49002-0402
ATTORNEY DOCKET NUMBER:	223355/455595
NAME OF SUBMITTER:	KELLY T. MURPHY
SIGNATURE:	/Kelly T. Murphy/
DATE SIGNED:	04/07/2020
Total Attachments: 4	
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ASSIGNMENT

I/We,

1. Angelika Fretzen, (DE Citizen); 7 Avon Street, Somerville, MA 02143, US; and
2. Brian Cali, (US Citizen); 100 Hillside, Arlington, MA 02476, US;

for good and valuable consideration, receipt of which is hereby acknowledged, have assigned, sold and transferred to, and do hereby assign, sell and transfer to, Ironwood Pharmaceuticals, Inc., a corporation organized and existing under the laws of the State of Delaware and having an office and a place of business at 301 Binney Street Cambridge, Massachusetts 02142, USA, its successors and assigns, all hereinafter referred to as the ASSIGNEE:

(1) the entire right, title and interest in the United States and in all countries throughout the world in and to any and all of my/our inventions and discoveries disclosed in:

(a) the application for United States Letters Patent entitled: Stable Formulations of Linaclotide, and filed in the United States Patent and Trademark Office on February 8, 2013 under Application Number 13/816,154 and including any renewals, revivals, reissues, reexaminations, extensions, continuations, and divisions thereof, and any substitute applications there from, and/or

(b) the International Patent Application entitled: Stable Formulations of Linaclotide, filed under the Patent Cooperation Treaty in the United States Receiving Office on August 11, 2011 under Application No.: PCT/US2011/047434, and designating all countries, including any renewals, revivals, reissues, reexaminations, extensions, continuations and divisions thereof, and any substitute applications there from;

(2) the full and complete right to file patent applications in the name of the ASSIGNEE, its designee, or in my/our names at the election of the ASSIGNEE or its designee, on the aforesaid inventions, discoveries and applications in the United States and in any other country of the world and in and to any renewals, revivals, reissues, reexaminations, extensions, continuations and divisions thereof; and

(3) the entire right, title and interest in and to any Letters Patent which may issue thereon in the United States or in any other country of the world, and in and to any renewals, revivals, reissues, reexaminations, extensions, continuations and divisions thereof; and

(4) the entire right, title and interest in and to all Convention and Treaty Rights of all kinds thereon, including without limitation all rights of priority in any country of the world, in and to the above inventions, discoveries and applications including, but not limited to, the following priority application(s):

61/372,804	United States	August 11, 2010
Application No.	Country	Filing Date

and all rights of priority in any country of the world deriving from the above-identified International Patent Application.

I/We hereby authorize and request the competent authorities to grant and to issue any and all such Letters Patent in the United States and throughout the world to the ASSIGNEE of the entire right, title and interest therein, as fully and entirely as the same would have been held and enjoyed by me/us had this assignment, sale and transfer not been made.

I/We agree, at any time, upon the request of the ASSIGNEE to execute and to deliver to the ASSIGNEE any additional applications for patents for said inventions and discoveries, or any part or parts thereof, and any applications for patents of confirmation, registration and importation based on any Letters Patent issuing on said inventions, discoveries or applications, and divisions, continuations, renewals, revivals, reissues, reexaminations and extensions thereof.

I/We further agree at any time to execute and to deliver upon request of the ASSIGNEE such additional documents, if any, as are necessary or desirable to secure patent protection on said inventions, discoveries and applications throughout all countries of the world, and otherwise to do the necessary to give full effect to and to perfect the rights of the ASSIGNEE under this Assignment, including the execution, delivery and procurement of any and all further documents evidencing this assignment, transfer and sale as may be necessary or desirable.

SIGNATURES ON THE FOLLOWING PAGES

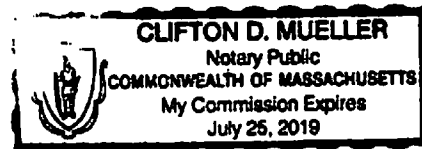
Angelika Fretzen
ANGELIKA FRETZEN

Date: 20 Mar 2013

State of Massachusetts
County of Middlesex

On this 20th day of March, 2013, before me, the undersigned notary public, personally appeared ANGELIKA FRETZEN, proved to me through satisfactory evidence of identification which were personal knowledge, to be the person whose name is signed on this document and who swore or affirmed to me the contents of the document are truthful and accurate to the best of his/her knowledge and belief.

Clifton D. Mueller
Notary Public
My Commission Expires: July 25, 2019



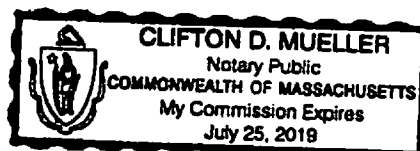
Brian Cali
BRIAN CALI

Date: 9/5/13

State of Massachusetts
County of Middlesex

On this 5th day of September, 2013, before me, the undersigned notary public, personally appeared BRIAN CALI, proved to me through satisfactory evidence of identification which were personal knowledge, to be the person whose name is signed on this document and who swore or affirmed to me the contents of the document are truthful and accurate to the best of his/her knowledge and belief.

Clifton D. Mueller
Notary Public
My Commission Expires: 25 July 2019



ACKNOWLEDGMENT OF ASSIGNEE

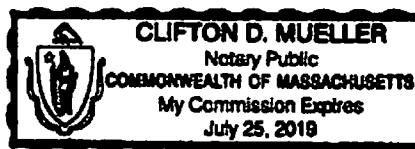
By: Karen E. Brown
Title: Chief Intellectual Property Counsel
Date: 5 September 2013

Commonwealth of Massachusetts

County of Middlesex

On this 5th day of September, 2013, before me, the undersigned notary public, personally appeared Karen Brown (name of document signer), proved to me through satisfactory evidence of identification which were personal knowledge to be the person whose name is signed on this document and who swore or affirmed to me that the contents of the document are truthful and accurate to the best of his/her knowledge and belief.

Clifton D. Mueller
Notary Public
My Commission Expires: 25 July 2019



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