PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
SARA S. HADIDA RUAH	02/01/2008
FREDRICK F. VAN GOOR	01/29/2008
MARK T. MILLER	01/25/2008
JASON MCCARTNEY	01/25/2008
JINGLAN ZHOU	01/24/2008
VIJAYALAKSMI ARUMUGAM	01/28/2008

RECEIVING PARTY DATA

Name:	VERTEX PHARMACEUTICALS INCORPORATED
Street Address:	130 WAVERLY STREET
City:	CAMBRIDGE
State/Country:	MASSACHUSETTS
Postal Code:	02139

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	13178677

CORRESPONDENCE DATA

Fax Number:

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

Email: leslie_garbarczuk@vrtx.com

Correspondent Name: VERTEX PHARMACEUTICALS INCORPORATED

Address Line 1: 130 WAVERLY STREET

Address Line 4: CAMBRIDGE, MASSACHUSETTS 02139

ATTORNEY DOCKET NUMBER:	VPI/05-146 US DV1
NAME OF SUBMITTER:	LESLIE GARBARCZUK

REEL: 031346 FRAME: 0634

PATENT

502521130

Signature:	/Leslie Garbarczuk/
Date:	10/04/2013
Total Attachments: 7 source=VPI_05_146_US_DV1_Executed_Assignment_from_Partent_Filed#page1.tif source=VPI_05_146_US_DV1_Executed_Assignment_from_Partent_Filed#page2.tif source=VPI_05_146_US_DV1_Executed_Assignment_from_Partent_Filed#page3.tif source=VPI_05_146_US_DV1_Executed_Assignment_from_Partent_Filed#page4.tif source=VPI_05_146_US_DV1_Executed_Assignment_from_Partent_Filed#page5.tif source=VPI_05_146_US_DV1_Executed_Assignment_from_Partent_Filed#page6.tif	

PATENT REEL: 031346 FRAME: 0635

Attorney Docket No.: VPI/05-146

ASSIGNMENT

I/We,

- (1) HADIDA RUAH, SARA S., of LA JOLLA, CA;
- (2) VAN GOOR, FREDRICK F., of SAN DIEGO, CA;
- (3) MILLER, MARK T., of SAN DIEGO, CA; and
- (4) MCCARTNEY, JASON, of CARDIFF BY THE SEA, CA
- (5) ZHOU, JINGLAN, of SAN DIEGO, CA; and
- (6) ARUMUGAM, VIJAYALAKSMI, of SAN MARCO, CA;

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, Vertex Pharmaceuticals Incorporated, a corporation organized and existing under the laws of the Commonwealth of Massachusetts and having an office and a place of business at 130 Waverly Street, Cambridge, MA 02139, 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:

 MODULATORS OF CYSTIC FIBROSIS TRANSMEMBRANE CONDUCTANCE

 REGULATOR, and filed in the United States Patent and Trademark Office on August
 11, 2006, under Application Number 11.503,449, including any renewals, revivals,
 reissues, reexaminations, extensions, continuations, and divisions thereof, and any
 substitute applications therefor, and/or
- (b) the International Patent Application entitled: MODULATORS OF CYSTIC FIBROSIS TRANSMEMBRANE CONDUCTANCE REGULATOR, filed under the Patent Cooperation Treaty in the United States Receiving Office on August 11,

Page 1 of 7

¹ I/We authorize and request ASSIGNEE to insert the filing date and/or application number of said application when known.

2006 under Application No. PCT/US2006/031457² and designating all countries, including any renewals, revivals, reissues, reexaminations, extensions, continuations and divisions thereof, and any substitute applications therefor;

- (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;
- (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):

60/707,380	US	August 11, 2005
Application No.	Country	Filing Date
60/732,476	US	November 2, 2005
Application No.	Country	Filing Date

and all rights of priority in any country of the world deriving from the aboveidentified 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.

² I/We authorize and request ASSIGNEE to insert the filing date and/or application number of said application when known.

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.

	Stediole
	(1) Sara S. Hadida Ruah
	Date: 2/1/2008
State of California County of San Diego	
On this day of	, proved to me through satisfactory evidence al knowledge of identity, \(\square a\) a driver's \(\square a\), to be the person whose name is affirmed to me that the contents of the
My Commission Expires: 10-20-2011.	4
WEICHUAN CHEN COMM. # 1774377 NOTARY PUBLIC-CALIFORNIA U SAN DIEGO COUNTY MY COMM. EXP. OCT. 20, 2011	(2) Fredrick F. Van Goor Date: 01/29/2008
State of California County of San Diego	
On this 29th day of Jawam, 2008, before me, the undersigned notary public, personally appeared Fredrick F. Van Goor, proved to me through satisfactory evidence of identification which was/were: personal knowledge of identity, a driver's license, other (please identify), 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. Notary Public My Commission Expires: 10-20-2011	
· · · · · · · · · · · · · · · · · · ·	



	Mil I fel
	(3) Mark T. Miller Date: 125/2008
State of California County of San Diego	
On this 25th day of Vanuary, 2008, personally appeared Mark T. Miller, proved identification which was/were: personal I other (please identify), this document, and who swore or affirmed to truthful and accurate to the best of his/her kn	knowledge of identity, \square a driver's license, to be the person whose name is signed on o me that the contents of the document are
Notary Public My Commission Expires: 10-20-2011	an MEL
WEICHUAN CHEN COMM. # 1774377 NOTARY PUBLIC CALIFORNIA SAN DIEGO COUNTY MY COMM. EXP. OCT. 20, 2011	(4) Jason McCartney Date: //25/2008
State of California County of San Diego	/ /
On this day of, 2008, before me, the undersigned notary public, personally appeared Jason McCartney, proved to me through satisfactory evidence of identification which was/were: \(\subseteq \text{ personal knowledge of identity, } \subseteq a driver's license, \(\subseteq \text{ other (please identify) } \), 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. Notary Public My Commission Expires: 10-20-2011.	
WEICHUAN CHEN COMM. # 1774377 NOTARY PUBLIC - CALIFORNIA SAN DIEGO COUNTY MY COMM. EXP. OCT. 20, 2011	

	The state of the s	
	(5) Jinglan Zhou Date:	
State of California County of San Diego On this	knowledge of identity, \square a driver's license,	
this document, and who swore or affirmed to truthful and accurate to the best of his/her ki	o me that the contents of the document are	
Notary Public My Commission Expires: 10 -20-2011.		
	_ A Vijæyalaksme	
WEICHUAN CHEN COMM. # 1774377 W NOTARY PUBLIC-CALIFORNIA W COMM. Exp. Oct. 20, 2011	(6) Vijayalaksmi Arumugam Date: 01 28 08	
State of California County of San Diego		
On this day of, 2008, before me, the undersigned notary public, personally appeared Vijayalaksmi Arumugam, proved to me through satisfactory evidence of identification which was/were:, personal knowledge of identity, a driver's license, other (please identify), 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.		
Notary Public My Commission Expires: 10-201!		
WEICHHAN CHEN		



Page 6 of 7

ACKNOWLEDGMENT OF ASSIGNEE

By: Stylle Miller

Stephen L. Nesbitt Chief Patent Counsel

VERTEX PHARMACEUTICALS INCORPORATED

Date: February 7, 2008

Conmonwearth of Mass chisetis
County of Middlesex

On this _______ day of ________, 2008, before me, the undersigned notary public, personally appeared _________, 2008, before me, the undersigned notary public, personally appeared _________, proved to me through satisfactory evidence of identification which was/were. ________ personal knowledge of identity, ________, a driver's license, _______ other (please identify) __________, 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. ________

Notary Public

My Commission Expires: 5/8/09

