## 502579362 11/22/2013

## PATENT ASSIGNMENT COVER SHEET

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EPAS ID: PAT2625367

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

## **CONVEYING PARTY DATA**

Name	Execution Date
HAYLEY BINCH	04/16/2010
PETER D.J. GROOTENHUIS	04/16/2010
SARA S. HADIDA RUAH	04/16/2010
JINGLAN ZHOU	04/16/2010
ANNA HAZLEWOOD	04/20/2010
LEV T.D. FANNING	06/01/2010

## 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:	13778949

# CORRESPONDENCE DATA

**Fax Number**: (617)341-6483 **Phone**: 8584045358

Email: usptopatents@vrtx.com

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

Correspondent Name: VERTEX PHARMACEUTICALS INCORPORATED

Address Line 1: 130 WAVERLY STREET

Address Line 4: CAMBRIDGE, MASSACHUSETTS 02139

ATTORNEY DOCKET NUMBER:	VPI/07-129 USW CN1 DV2
NAME OF SUBMITTER:	LAUREN M. DEVINCENZO

502579362 REEL: 031657 FRAME: 0263

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Signature:	/Lauren M. DeVincenzo/
Date:	11/22/2013
Total Attachments: 18	
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### ASSIGNMENT

We,

- (1) Hayley Binch, of Encinitas, California;
- (2) Peter D.J. Grootenhuis, of San Diego, California;
- (3) Sara S. Hadida Ruah, of La Jolla, California;
- (4) Jinglan Zhou, of San Diego, California;
- (5) Anna Hazlewood, of San Diego, California; and
- (6) Lev T.D. Fanning, of San Marcos, California,

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 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 **March 12, 2010** under Application Number **12/722,642**, including any renewals, revivals, reissues, reexaminations, extensions,
  continuations, and divisions thereof, and any substitute applications therefor, and/or;
- (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):

PCT/US2008/076376	WO	September 15, 2008
Application No.	Country	Filing Date
60/972,599	US	September 14, 2007
Application No.	Country	Filing Date

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

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.

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.

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.

	(1) Hayley Binch
	Date:
State of California	
County of	
basis of satisfactory evidence to be and acknowledged to me that she	Hayley Binch personally appeared, who proved to me on the the person whose name is subscribed to the within instrume executed the same in her authorized capacity, and that by her rson, or the entity upon behalf of which the person acted,
I certify under PENALTY OF PE foregoing paragraph is true and co	RJURY under the laws of the State of California that the rrect.
WITNESS my hand and official s	eal.
Signature	(Seal)

	(2)	
	Peter D. J. Gr	ootenhuis
	Date:	
State of California		
County of	)	
ne on the basis of satisfactory nstrument and acknowledged to	evidence to be the person whose to me that he executed the same trument the person, or the entity	sonally appeared, who proved to e name is subscribed to the within in his authorized capacity, and upon behalf of which the person
certify under PENALTY OF foregoing paragraph is true and	PERJURY under the laws of the laws of the	State of California that the
WITNESS my hand and officia	al seal.	
Signatura	(Soal)	

	(3)	
	Sara S. Hadida Ruah	
	Date:	
State of California		
County of		
on the basis of satisfactory evi instrument and acknowledged	e me, Sara S. Hadida Ruah personally a idence to be the person whose name is so to me that she executed the same in her strument the person, or the entity upon to.	subscribed to the within r authorized capacity, and
I certify under PENALTY OF foregoing paragraph is true and	PERJURY under the laws of the State ad correct.	of California that the
WITNESS my hand and offici	ial seal.	
Signature	(Seal)	

	(4)
	Jinglan Zhou
	Date:
State of California	
County of	)
basis of satisfactory evide and acknowledged to me t	re me, Jinglan Zhou personally appeared, who proved to me on the e to be the person whose name is subscribed to the within instrument the executed the same in his authorized capacity, and that by his he person, or the entity upon behalf of which the person acted,
I certify under PENALTY foregoing paragraph is tru	F PERJURY under the laws of the State of California that the and correct.
WITNESS my hand and o	cial seal.
Signature	(Seal)

(5) Anna Hazlewood
Date: $04/20/20$
IN WITNESS WHEREOF, I have hereunto set hand and seal
Signature of witness: South N. Web
Printed Name of Witness: <u>Jamie R. Kelkenberg</u>
this 20 day of April, 2010.  Date of signing
IN WITNESS WHEREOF, I have hereunto set hand and seal
Signature of witness: Mgllo Tilly
Printed Name of Witness: Angela Tibbs
this 30 day of April, 2010

Date of signing

	(6)
	Lev T. D. Fanning
	Date:
State of California	
County of	
the basis of satisfactory evidence to be the prinstrument and acknowledged to me that he	e. Fanning personally appeared, who proved to me on the serion whose name is subscribed to the within executed the same in his authorized capacity, and the erson, or the entity upon behalf of which the person
I certify under PENALTY OF PERJURY unforegoing paragraph is true and correct.	nder the laws of the State of California that the
WITNESS my hand and official seal.	
Signature	(Seal)

# ACKNOWLEDGMENT OF ASSIGNEE

By: Stephen Nesbitt

Title: Chief Patent Counsel

Date: 100 8, 2011

State of Massachusetts County of Middlesex

On this day of the day, 2010, before me, the undersigned notary public, personally appeared Stephen Nesbitt, 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 knowledge and belief.

Notary Public:

My Commission Expires: December 17, 2015

LAUREN M DeVINCENZO
Notary Public
COMMONWEALTH OF MASSACHUSETTS
My Commission Expires
December 17, 2015

#### ASSIGNMENT

We,

- (1) Hayley Binch, of Encinitas, California;
- (2) Peter D.J. Grootenhuis, of San Diego, California;
- (3) Sara S. Hadida Ruah, of La Jolla, California;
- (4) Jinglan Zhou, of San Diego, California;
- (5) Anna Hazlewood, of San Diego, California; and
- (6) Lev T.D. Fanning, of San Marcos, California,

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 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:

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  the United States Patent and Trademark Office on **March 12**, **2010** under Application Number **12/722,642**, including any renewals, revivals, reissues, reexaminations, extensions,
  continuations, and divisions thereof, and any substitute applications therefor, and/or;
- (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):

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Application No.	Country	Filing Date
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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.

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.

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.

	(1) tayley Binch
(x,y) = (x,y) + (x,y	Hayley Binch
	Date: 04/16/2010
State of California	
County of San Diego	
basis of satisfactory evidence to be the personand acknowledged to me that she executed to	Binch personally appeared, who proved to me on the on whose name is subscribed to the within instrument the same in her authorized capacity, and that by her ne entity upon behalf of which the person acted,
I certify under PENALTY OF PERJURY us foregoing paragraph is true and correct.	nder the laws of the State of California that the
WITNESS my hand and official seal.	
Signature Ofelia Rosodo	(Seal)
OFELIA ROSADO Commission # 1663202 Notary Public - California San Diego County My Comm. Expires May 2, 2018	NA CONTRACTOR OF THE CONTRACTO

(2) Peter D. J. Grootenhuis

Date: 4/16/2010

State of California

County of Son Diego

On <u>Mark 16 2010</u> before me, Peter D.J. Grootenhuis, personally appeared, who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

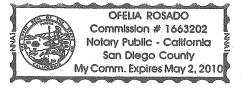
I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature Ofelin Rosato (Seal)

OFELIA ROSADO
Commission # 1663202
Notary Public - California
San Diego County
My Comm. Expires May 2, 2010

	(3) Sara S. Hadida Ruah
	Date: 4/16/2010
State of California	
County of <u>Son Diego</u> On <u>Opail 16<sup>th</sup> 2010</u> before me, Sara S. H	)  Iadida Ruah personally appeared, who proved to m
instrument and acknowledged to me that she	e person whose name is subscribed to the within executed the same in her authorized capacity, and erson, or the entity upon behalf of which the person
I certify under PENALTY OF PERJURY un foregoing paragraph is true and correct.	der the laws of the State of California that the
WITNESS my hand and official seal.	
Signature Ofelia Posado	(Seal)



Jinglan Zhou  Date:	
State of California	
County of <u>Jan Dugo</u> On <u>April 16 200</u> before me, Jinglan Zhou personally appeared, who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrurand acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.	men
I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.	
WITNESS my hand and official seal.	
Signature Ofelia Rosodo (Seal)	

OFELIA ROSADO
Commission # 1663202
Notary Public - California
San Diego County
My Comm. Expires May 2, 2010

	(5)
	Anna Hazlewood
	Date:
IN WITNESS WHEREOF, I have hereunto	set hand and seal
Signature of witness:	
Printed Name of Witness:	· · · · · · · · · · · · · · · · · · ·
this day of <b>Date of signing</b>	
IN WITNESS WHEREOF, I have hereunto	set hand and seal
Signature of witness:	
Printed Name of Witness:	
this day of  Date of signing	
Date of Signing	

(6) Lev T. D. Fanning

Date: 6////

State of California

County of Son Diego )

On <u>June 1 2010</u> before me, Lev T.D. Fanning personally appeared, who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature Ofelin Rosso (Seal)



# ACKNOWLEDGMENT OF ASSIGNEE

By: Stephen Nesbitt

Title: Chief Patent Counsel

Date: 110 8 3011

State of Massachusetts County of Middlesex

On this day of day of 2010, before me, the undersigned notary public, personally appeared Stephen Nesbitt, 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 knowledge and belief.

Notary Public:

My Commission Expires: December 17, 2015

LAUREN M DeVINCENZO

Notary Public

COMMONWEALTH OF MASSACHUSETTS

My Commission Expires

December 17, 2015

PATENT REEL: 031657 FRAME: 0282

**RECORDED: 11/22/2013**