PATENT ASSIGNMENT COVER SHEET

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EPAS ID: PAT4809560

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
MICHAEL JOHN BOYD	07/22/2016
MICHAEL WALDO	04/12/2016
KWAME W. NTI-ADDAE	05/19/2016
YUEGANG ZHANG	05/24/2016

RECEIVING PARTY DATA

Name:	VERTEX PHARMACEUTICALS INCORPORATED
Street Address:	50 NORTHERN AVENUE
City:	BOSTON
State/Country:	MASSACHUSETTS
Postal Code:	02210

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15807984

CORRESPONDENCE DATA

Fax Number: (269)337-7861

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: (269) 337-7838

Email: patent@honigman.com **Correspondent Name:** ANDREW N. WEBER

Address Line 1: 350 EAST MICHIGAN AVENUE

Address Line 2: SUITE 300

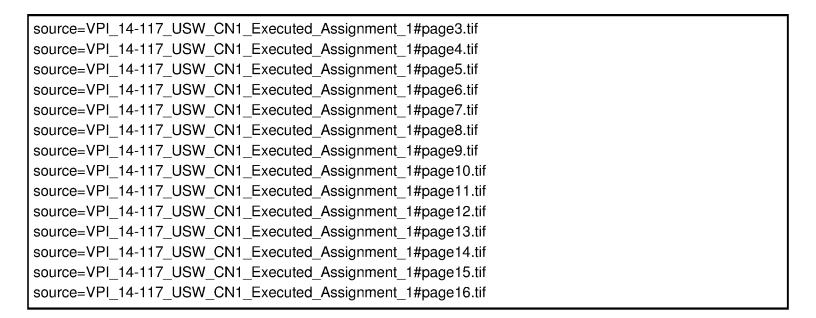
Address Line 4: KALAMAZOO, MICHIGAN 49007-3800

ATTORNEY DOCKET NUMBER:	223306/14-117USWC1/420588
NAME OF SUBMITTER:	ANDREW N. WEBER
SIGNATURE:	/Andrew N. Weber/
DATE SIGNED:	02/05/2018

Total Attachments: 16

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PATENT REEL: 044831 FRAME: 0928 504762832



PATENT REEL: 044831 FRAME: 0929

ASSIGNMENT

We,

- (1) Michael John Boyd, of Winchester, Massachusetts;
- (2) Michael Waldo, of Grafton, Massachusetts;
- (3) Kwame W. Nti-Addae, of Wilmington, Massachusetts; and
- (4) Yuegang Zhang, of Wayland, Massachusetts;

for good and valuable consideration, receipt of which is hereby acknowledged, have assigned, sold and transferred to, by virtue of our agreement with Vertex Pharmaceuticals Incorporated 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 50 Northern Avenue, Boston, Massachusetts 02210, 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: INHIBITORS OF

 INFLUENZA VIRUSES REPLICATION, and filed in the United States Patent and Trademark

 Office on , under Application Number i,

 including any renewals, revivals, reissues, reexaminations, extensions, continuations, and

 divisions thereof, and any substitute applications therefor, and/or
- (b) the International Patent Application entitled: **INHIBITORS OF INFLUENZA VIRUSES REPLICATION**, filed under the Patent Cooperation Treaty in the

 United States Receiving Office on May 11, 2014, under Application No. PCT/US2014/031713²,

 and designating all countries, including any renewals, revivals, reissues, reexaminations,
 extensions, continuations and divisions thereof, and any substitute applications therefor;

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

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

Vertex Pharmaceuticals Incorporated Attorney Docket No.: VPI/14-117 US & WO

- (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):

62/160,637	US	May 13, 2015
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.

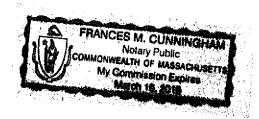
We further agree at any time to execute and to deliver upon request of the ASSIGNEE such additional documents, if any, as are necessary or desirable to secure patent protection on said inventions, discoveries and applications throughout all countries of the world, and otherwise

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.

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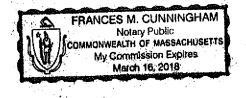
(1) Michael John Boyd

Date: July 22, 2016



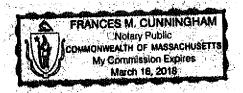
Vertex Pharmaceuticals Incorporated Attorney Docket No.: VPI/14-117 US & WO

	Melul 2 Wal 20
	(2) Michael Waldo
	Date: APRIL 12,2016
personally appeared Michael waldo, proved which was/were: personal knowledge of identify)	, 20 , before me, the undersigned notary public, I to me through satisfactory evidence of identification identity, \(\subseteq a \) driver's license, \(\subseteq \) other (please the person whose name is signed on this document, ontents of the document are truthful and accurate to



Vertex Pharmaceuticals Incorporated Attorney Docket No.: VPI/14-117 US & WO

(3) Kwame W. Nti-Addae
Date: 19th May 2016



	(4) Yuegang Zhang
	Date:
IN WITNESS WHEREOF, I hav	ve hereunto set hand and seal
Signature of witness: (1)	
Printed Name of Witness:	
this day of	
	Date of signing
Signature of witness: (2)	
Printed Name of Witness:	
this day of	
	Date of signing

ACKNOWLEDGMENT OF ASSIGNEE

By:
Kerry A. Flynn
Vice President and Chief IP Counsel
on behalf of Vertex Pharmaceuticals Incorporated
Date:
G 14 03.5 1 44
Commonwealth of Massachusetts
County of Suffolk
On this day of, 20, before me, the undersigned notary public,
personally appeared Kerry A. Flynn (name of document signer), proved to me through
satisfactory evidence of identification which was/were: \(\subseteq \text{ personal knowledge of identity, } \subseteq \text{ a least the personal knowledge of identity, } \(\subseteq \text{ a least the personal knowledge of identity, } \subseteq \text{ a least the personal knowledge of identity, } \(\subseteq \text{ a least the personal knowledge of identity, } \)
driver's license, other (please identify), to be the person whose nam
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.
Motory Public
Notary Public My Commission Expires:
IVIV COMBINISSION EADITCS.

ASSIGNMENT

We,

- (1) Michael John Boyd, of Winchester, Massachusetts;
- (2) Michael Waldo, of Grafton, Massachusetts;
- (3) Kwame W. Nti-Addae, of Wilmington, Massachusetts; and
- (4) Yuegang Zhang, of Wayland, Massachusetts;

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 Office on , under Application Number , including any renewals, revivals, reissues, reexaminations, extensions, continuations, and divisions thereof, and any substitute applications therefor, and/or
- (b) the International Patent Application entitled: INHIBITORS OF
 INFLUENZA VIRUSES REPLICATION, filed under the Patent Cooperation Treaty in the
 United States Receiving Office on May 11, 2016, under Application No. PCT/US2016/031+13²,
 and designating all countries, including any renewals, revivals, reissues, reexaminations,
 extensions, continuations and divisions thereof, and any substitute applications therefor;

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

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

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- (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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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.

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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) Michael John Boyd
		Date:
Commonwe.	alth of Massachusetts uffolk	
personally as identification (please ident document, as	ppeared Michael John n which was/were: ☐ tify)	
Notary Publi		
My Commis	sion Expires:	

	(2) Michael Waldo
	Date:
Commonwealth of Massachusetts County of Suffolk	
personally appeared Michael Waldo, prove which was/were: personal knowledge or identify), to be	, 20, before me, the undersigned notary public, ed to me through satisfactory evidence of identification fidentity, \[\] a driver's license, \[\] other (please see the person whose name is signed on this document, contents of the document are truthful and accurate to
Notary Public My Commission Expires:	
iii Commission Empiros.	

		weeken a constraint of the con	
		(3) Kwame W. Nti-Addae	
		Date:	
Commonwea County of Su	lth of Massachusetts		
personally ap identification (please identi document, an	peared Kwame W. N which was/were: ☐ fy)	, 20, before me, the undersigned notary pubti-Addae, proved to me through satisfactory evidence of personal knowledge of identity, \[\] a driver's license, \[\] o, to be the person whose name is signed on thined to me that the contents of the document are truthful a yledge and belief.	other is
Notary Public My Commiss			

Muegnney Thy

(4) Yuegang Zhang

Date: May 24, 2016

IN WITNESS WHEREOF, I have hereunto set hand and seal

Signature of witness: (1)

Printed Name of Witness: YING VAN ZHANG

this 24 day of MAY, 2016

Date of signing

Signature of witness: (2)

Printed Name of Witness: FANG WANG

this 24 day of MAY, 2016

Date of signing

ACKNOWLEDGMENT OF ASSIGNEE

