# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT2900726

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
JOHN PATRICK MAXWELL	03/12/2014
PAUL S. CHARIFSON	06/05/2014
QING TANG	06/05/2014
STEVEN M. RONKIN	06/05/2014
KATRINA LEE JACKSON	06/05/2014
ALBERT CHARLES PIERCE	06/09/2014
DAVID J. LAUFFER	06/09/2014
PAN LI	06/05/2014
SIMON GIROUX	06/05/2014

### **RECEIVING PARTY DATA**

Name:	VERTEX PHARMACEUTICALS INCORPORATED
Street Address:	50 NORTHERN AVENUE, 15TH FLOOR
City:	BOSTON
State/Country:	MASSACHUSETTS
Postal Code:	02210

#### **PROPERTY NUMBERS Total: 2**

Property Type	Number
Application Number:	14205657
PCT Number:	US2014024767

#### **CORRESPONDENCE DATA**

Fax Number:

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.

**Email:** patents@vrtx.com

Correspondent Name: VERTEX PHARMACEUTICALS INCORPORATED

Address Line 1:50 NORTHERN AVENUE, 15TH FLOORAddress Line 4:BOSTON, MASSACHUSETTS 02210

ATTORNEY DOCKET NUMBER:	VPI/11-137 US2 & WO	
NAME OF SUBMITTER:	FRANCES M. CUNNINGHAM	
SIGNATURE:	/Frances M. Cunningham/	DATENT

502854129 REEL: 033115 FRAME: 0098

**DATE SIGNED:** 06/17/2014 **Total Attachments: 26** source=VPI 11 137US2WO ExecutedAssignment#page1.tif source=VPI 11 137US2WO ExecutedAssignment#page2.tif source=VPI 11 137US2WO ExecutedAssignment#page3.tif source=VPI 11 137US2WO ExecutedAssignment#page4.tif source=VPI 11 137US2WO ExecutedAssignment#page5.tif source=VPI 11 137US2WO ExecutedAssignment#page6.tif source=VPI 11 137US2WO ExecutedAssignment#page7.tif source=VPI 11 137US2WO ExecutedAssignment#page8.tif source=VPI 11 137US2WO ExecutedAssignment#page9.tif source=VPI 11 137US2WO ExecutedAssignment#page10.tif source=VPI 11 137US2WO ExecutedAssignment#page11.tif source=VPI\_11\_137US2WO\_ExecutedAssignment#page12.tif source=VPI 11 137US2WO ExecutedAssignment#page13.tif source=VPI 11 137US2WO ExecutedAssignment#page14.tif source=VPI 11 137US2WO ExecutedAssignment#page15.tif source=VPI\_11\_137US2WO\_ExecutedAssignment#page16.tif source=VPI 11 137US2WO ExecutedAssignment#page17.tif source=VPI 11 137US2WO ExecutedAssignment#page18.tif source=VPI 11 137US2WO ExecutedAssignment#page19.tif source=VPI\_11\_137US2WO\_ExecutedAssignment#page20.tif source=VPI 11 137US2WO ExecutedAssignment#page21.tif source=VPI 11 137US2WO ExecutedAssignment#page22.tif source=VPI 11 137US2WO ExecutedAssignment#page23.tif source=VPI 11 137US2WO ExecutedAssignment#page24.tif source=VPI\_11\_137US2WO\_ExecutedAssignment#page25.tif source=VPI\_11\_137US2WO\_ExecutedAssignment#page26.tif

> PATENT REEL: 033115 FRAME: 0099

#### ASSIGNMENT

We,

- (1) John Patrick Maxwell, of Hingham, Massachusetts;
- (2) Paul S. Charifson, of Framingham, Massachusetts;
- (3) Qing Tang, of Acton, Massachusetts;
- (4) Steven M. Ronkin, of Watertown, Massachusetts;
- (5) Katrina Lee Jackson, of Cambridge, Massachusetts,
- (6) Albert Charles Pierce, of Cambridge, Massachusetts;
- (7) David J. Lauffer, of Stow, Massachusetts;
- (8) Pan Li, of Lexington, Massachusetts; and
- (9) Simon Giroux, of Cambridge, 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: DNA-PK INHIBITORS, and filed in the United States Patent and Trademark Office on March 12, 2014, under Application Number 14/205,657<sup>1</sup>, including any renewals, revivals, reissues, reexaminations, extensions, continuations, and divisions thereof, and any substitute applications therefor, and/or
- (b) the International Patent Application entitled: DNA-PK INHIBITORS, filed under the Patent Cooperation Treaty in the United States Receiving Office on March 12, 2014,

<sup>&</sup>lt;sup>1</sup> We authorize and request ASSIGNEE to insert the filing date and/or application number of said application when known.

under Application No. PCT/US2014/024767<sup>2</sup>, 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):

61/777,816	US	March 12, 2013
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.

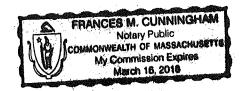
We agree, at any time, upon the request of the ASSIGNEE to execute and to deliver to the ASSIGNEE any additional applications for patents for said inventions and discoveries, or any part or parts thereof, and any applications for patents of confirmation, registration and

<sup>&</sup>lt;sup>2</sup> I/We authorize and request ASSIGNEE to insert the filing date and/or application number of said application when known.

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) John Patrick Maxwell
	Date:
Commonwealth of Massachusetts	
County of Suffolk	
personally appeared John Patrick Maxwell,	2014, before me, the undersigned notary public, proved to me through satisfactory evidence of knowledge of identity,
(please identify)	, to be the person whose name is signed on
	o me that the contents of the document are truthful
and accurate to the best of his/her knowledg	ge and belief.
France M. Cunninham	
Notary Public	
My Commission Expires: 3/14/2018.	



	(2) Paul S. Charifson
	Date:
Commonwealth of Massachusetts County of Suffolk	
personally appeared Paul S. Charifson, prodentification which was/were: ☐ personate please identify)	_, 2014, before me, the undersigned notary public, oved to me through satisfactory evidence of l knowledge of identity, \subseteq a driver's license, \subseteq other, to be the person whose name is signed on to me that the contents of the document are truthful dge and belief.
Notary Public	
My Commission Expires:	

	(3) Qing Tang
	Date:
Commonwealth of Massachusetts County of Suffolk	
personally appeared Qing Tang, proved which was/were:   personal knowledge identify)	, 2014, before me, the undersigned notary public, I to me through satisfactory evidence of identification ge of identity, \[ \square a driver's license, \[ \square other (please, to be the person whose name is signed on this to me that the contents of the document are truthful and ge and belief.
Notary Public My Commission Expires:	<u>-</u>
My Commission Expires.	

	(4) Steven M. Ronkin
	Date:
Commonwealth of Massachuse County of Suffolk	etts
personally appeared Steven M. identification which was/were: (please identify)	, 2014, before me, the undersigned notary public,  Ronkin, proved to me through satisfactory evidence of  personal knowledge of identity,  a driver's license,  other  to be the person whose name is signed or or affirmed to me that the contents of the document are truthful her knowledge and belief.
Notary Public	
My Commission Expires:	•

(5) F	Katrina Lee Jackson
Date	
Commonwealth of Massachusetts County of Suffolk	
On this day of, 2014, personally appeared Katrina Lee Jackson, proved identification which was/were: personal knowledgese identify) this document, and who swore or affirmed to me to and accurate to the best of his/her knowledge and	to me through satisfactory evidence of edge of identity, □ a driver's license, □ other, to be the person whose name is signed on hat the contents of the document are truthful
Notary Public	
My Commission Expires:	

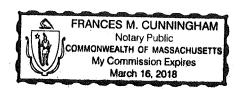
	(6) Albert Charles Pierce
	Date:
Commonwealth of Massachusetts	
County of Suffolk	
personally appeared Albert Charles Pierce, identification which was/were:   personal (please identify)	, 2014, before me, the undersigned notary public, proved to me through satisfactory evidence of knowledge of identity, ☐ a driver's license, ☐ other, to be the person whose name is signed on
this document, and who swore or affirmed and accurate to the best of his/her knowled	to me that the contents of the document are truthful
Notary Public	
My Commission Expires:	

		(7) David J. Lauffer
		Date:
Commonwea County of Su	alth of Massachusetts uffolk	
personally ap	ppeared David J. Lauf n which was/were:	, 2014, before me, the undersigned notary public, fer, proved to me through satisfactory evidence of personal knowledge of identity, \[ \] a driver's license, \[ \] other, to be the person whose name is signed on affirmed to me that the contents of the document are truthful
this document and accurate	to the best of his/her	knowledge and belief.
Notary Publi		
My Commis	sion Expires:	

(8) Pan Li
Date: 3/12/2014

Commonwealth of Massachusetts County of Suffolk

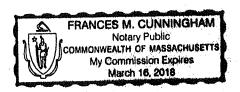
On this 12th day of Murch, 2014, before me, the undersigned notary public, personally appeared Pan Li, proved to me through satisfactory evidence of identification which was/were: personal knowledge of identity, a driver's license, other (please identify)
to be the person whose name is signed on this 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 3/1/
My Commission Expires: 3/16/2018.



		(9) Simon Giroux
		Date:
G	14 - CM1	
Commonwea County of Su	alth of Massachusetts affolk	
personally ap which was/w identify)	opeared Simon Giroux ere:  personal knov	, 2014, before me, the undersigned notary public, x, proved to me through satisfactory evidence of identification wledge of identity, □ a driver's license, □ other (please, to be the person whose name is signed on this
document, an	nd who swore or affir ne best of his/her kno	med to me that the contents of the document are truthful and
Notary Publi	c	
My Commiss	sion Evnires:	

## ACKNOWLEDGMENT OF ASSIGNEE

By: Levy A. Flynn
Vice President and Chief IP Counsel
VERTEX PHARMACEUTICALS INCORPORATED
Date: June 13, 2014
Commonwealth of Massachusetts
County of Suffolk
On this day of, 2014, 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: \Box personal knowledge of identity, \Box a driver's license, \Box
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: $\frac{3}{16}\frac{1}{208}$ .



#### ASSIGNMENT

We,

- (1) John Patrick Maxwell, of Hingham, Massachusetts;
- (2) Paul S. Charifson, of Framingham, Massachusetts;
- (3) Qing Tang, of Acton, Massachusetts;
- (4) Steven M. Ronkin, of Watertown, Massachusetts;
- (5) Katrina Lee Jackson, of Cambridge, Massachusetts,
- (6) Albert Charles Pierce, of Cambridge, Massachusetts;
- (7) David J. Lauffer, of Stow, Massachusetts;
- (8) Pan Li, of Lexington, Massachusetts; and
- (9) Simon Giroux, of Cambridge, 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: DNA-PK INHIBITORS, and filed in the United States Patent and Trademark Office on March 12, 2014, under Application Number 14/205,657<sup>1</sup>, including any renewals, revivals, reissues, reexaminations, extensions, continuations, and divisions thereof, and any substitute applications therefor, and/or
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<sup>&</sup>lt;sup>1</sup> We authorize and request ASSIGNEE to insert the filing date and/or application number of said application when known.

under Application No. PCT/US2014/024767<sup>2</sup>, 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):

61/777,816	US	March 12, 2013
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

<sup>&</sup>lt;sup>2</sup> I/We authorize and request ASSIGNEE to insert the filing date and/or application number of said application when known.

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) John Patrick Maxwell
	Date:
Commonwealth of Massachusetts County of Suffolk	
personally appeared John Patrick Maxwell identification which was/were:   personal	, 2014, before me, the undersigned notary public, , proved to me through satisfactory evidence of knowledge of identity, \sum a driver's license, \subseteq other, to be the person whose name is signed on to me that the contents of the document are truthful ge and belief.
Notary Public	
My Commission Expires:	

Paul S. Charifson

(2) Paul S. Charifson

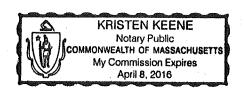
Date: June 5, 2014

Commonwealth of Massachusetts County of Suffolk

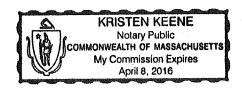
On this 5th day of 10the , 2014, before me, the undersigned notary public, personally appeared Paul S. Charifson, proved to me through satisfactory evidence of identification which was/were: personal knowledge of identity, a driver's license, other (please identify) , to be the person whose name is signed 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: 4/8/2016



	_ (L h)
	(3) Qing Tang
	Date: $6/5/14$
Commonwealth of Massachusetts	
County of Suffolk	
personally appeared Qing Tang, proved to n which was/were: It personal knowledge of	2014, before me, the undersigned notary public, ne through satisfactory evidence of identification 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	e that the contents of the document are truthful and
accurate to the best of his/her knowledge an	d belief.
Buster Klese Notary Public	
My Commission Expires: 4/8/2016.	



	the Millian
	(4) Steven M. Ronkin
	Date: 6/5/14
	•
Commonwealth of Massachusetts County of Suffolk	
personally appeared Steven M. Ronkin, pro	, 2014, before me, the undersigned notary public, wed to me through satisfactory evidence of 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 that accurate to the best of his/her knowledge.	to me that the contents of the document are truthful
Klester Kelno	or man content
Notary Public	
Notary Public My Commission Expires: 4/8/20/6.	



(5) Katrina Lee Jackson
Date: Jule 5, 2014

Commonwealth of Massachusetts County of Suffolk

Ţ	
On this 5th day of June, 2014,	before me, the undersigned notary public,
personally appeared Katrina Lee Jackson, proved to	
identification which was/were: Dersonal knowle	dge 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 th	at the contents of the document are truthful
and accurate to the best of his/her knowledge and b	pelief.
(K) est & Kan	

Notary Public
My Commission Expires: 4/8/2016.

KRISTEN KEENE
Notary Public
COMMONWEALTH OF MASSACHUSETTS

My Commission Expires
April 8, 2016

Page 8 of 13

Vertex Pharmaceuticals Incorporated Attorney Docket No.: VPI/11-137 US2 and WO

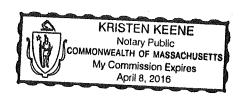
(6) Albert Charles Pierce

Date: June 9 2014

Commonwealth of Massachusetts County of Suffolk

A	
On this 9th day of June	, 2014, before me, the undersigned notary public,
personally appeared Albert Charles Piero	ce, proved to me through satisfactory evidence of
identification which was/were: X person	nal 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	ed to me that the contents of the document are truthful
and accurate to the best of his/her knowl	edge and belief.

My Commission Expires: 4/8/30/6.



Vertex Pharmaceuticals Incorporated Attorney Docket No.: VPI/11-137 US2 and WO

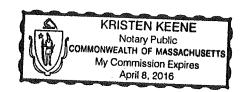
(7) David J. Lauffer

Date: 9 Jane 2014

Commonwealth of Massachusetts County of Suffolk

On this 9th day of June, 2014	, before me, the undersigned notary public,
personally appeared David J. Lauffer, proved to	
identification which was/were: personal know	ledge 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.
Buster Beere	

Notary Public
My Commission Expires: 4/8/2016.



Vertex Pharmaceuticals Incorporated Attorney Docket No.: VPI/11-137 US2 and WO

(8) Pan Li
Date: 6/5/2016

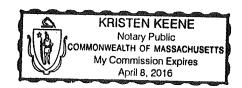
Commonwealth of Massachusetts County of Suffolk



Vertex Pharmaceuticals Incorporated Attorney Docket No.: VPI/11-137 US2 and WO

(9) Simon Giroux

Commonwealth of Massachusetts County of Suffolk



## ACKNOWLEDGMENT OF ASSIGNEE

By: Kerry A. Flynn Vice President and Chief IP Counsel VERTEX PHARMACEUTICALS INCORPORATED
Date:
Commonwealth of Massachusetts County of Suffolk
On this day of, 2014, 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: \bigsize personal knowledge of identity, \bigsize a driver's license, \bigsize 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.
Francis M Curringhau
Notary Public $\bigcirc$
My Commission Expires: 3/16/2018.

