Attorney Docket No.: VPI/04-13 US

RECORDATION FORM COVER SHEET PATENTS ONLY		
FORM PTO-1595 (Rev. 6-93) OMB No. 0651-0011 (exp. 4/94)	U.S. DEPARTMENT OF COMMERCE Patent and Trademark Office	
Please record the attached ori	ginal documents or copy thereof.	
1. Name of conveying party(ies):	2. Name and address of receiving party(ies)	
Alex Aronov (executed 2/9/06);	Name: VERTEX PHARMACEUTICALS INCORPORATED	
Michael Hale (executed 2/10/06);		
Francois Maltais (executed 2/9/06);	Internal Address:	
Gabriel Martinez-Botella (executed 2/10/06);	Street Address: 130 WAVERLY STREET CAMBRIDGE, MASSACHUSETTS 02139-4242	
Judith Straub (executed 2/20/06); and	CAMBINEDOL, MASSACHOSE 113 02137-1242	
Qing Tang (executed 2/13/06),	Additional name(s) & address(es) attached?	
Additional name(s) of conveying party(ies) attached?  Yes No  3. Nature of conveyance:   Assignment		
4. Application number(s) or patent number(s):  If this document is being filed together with a new application, the execution d	ota afaka analizatlar is	
A. Patent Application No(s):	B. Patent No(s):	
11/312,618	2. Therm (Vol.)	
·		
Additional numbers atta	hed? Yes No	
<ol><li>Name and address of party to whom correspondence Concerning document should be mailed;</li></ol>	6. Total number of applications and patents involved: [1]	
Name: Daniel A. Pearson Address: VERTEX PHARMACEUTICALS INCORPORATED 130 Waverly Street Cambridge, MA 02139-4242	7. Total fee (37 CFR 3.41) \$40.00  ☐ Enclosed ☐ The Commissioner is authorized to charge Deposit Account No: 50-0725, Reference No. VPI/04-13 US (Duplicate attached).	
DO NOT USE THIS SPACE		
9. Statement and signature To the best of my knowledge and belief, the foregoing information is true and	orrect and any attached copy is a true copy of the original document.	
Daniel A. Pearson, Reg. No. 58,053	April 5, 2006	
Name of Person Signing Signatur	Bate	
Total number of pages including cover sheet, attachments, and document: [19]		

Mail documents to be recorded with required cover sheet information to:

MAIL STOP ASSIGNMENT RECORDATION SERVICES
U.S. Patent Office
P.O. Box 1450
Alexandria, V/l. 22313-1450

PATENT REEL: 017436 FRAME: 0365

Attorney Docket No.: VPI/04-13 US

## ASSIGNMENT

We,

- (1) Alex Aronov, of Watertown, MA;
- (2) Michael Hale, of Bedford, MA;
- (3) François Maltais, of Tewksbury, MA;
- (4) Gabriel Martinez-Botella, of West Roxbury, MA;
- (5) Judith Straub, of Santa Cruz, CA; and
- (6) Qing Tang, of Acton, MA,

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: SELECTIVE INHIBITORS OF ERK PROTEIN KINASE AND USES THEREOF, and filed in the United States Patent and Trademark Office on December 20, 2005, under Application Number 11/312,618, including any renewals, revivals, reissues, reexaminations, extensions, continuations, and divisions thereof, and any substitute applications therefor, and/or
- (b) the International Patent Application entitled: SELECTIVE INHIBITORS OF ERK PROTEIN KINASE AND USES THEREOF, filed under the Patent Cooperation Treaty in the United States Receiving Office on December 20, 2005 under Application No. PCT/US05/46177, 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):

60/638,502	United States	December 23, 2004
Application No.	Country	Filing Date

and all rights of priority in any country of the world deriving from the aboveidentified 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 fu	rther documents evidencing this assignment,
transfer and sale as may be necessary or de	(1) Alex Aronov Date: 2906
Commonwealth of Massachusetts County of Michael Llosok	, , , , , , , , , , , , , , , , , , ,
identification to be the person whose/name	, before me, the undersigned notary public, o me through satisfactory evidence of is signed on this document and accurate to the blest of Commonwealth of Massachusett My Commission Expires May 26, 201
	(2) Michael Hale
	Date:
IN WITNESS WHEREOF, I have hereunto	set hand and seal
Signature of witness:	
Printed Name of Witness:	<del></del>
this day of  Date of signing	

(3) François Maltais

Commonwealth of Massachusetts County of Malloso X

personally appeared Francois Maltzis, proved to me through satisfactory evidence of identification 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 bear of his/her knowledge and belief. Notary Public

Notary Public My Commission Expires: My Commission Expires May 26, 2011 🕅

Commonwealth of Massachusetts

(4) Gabriel Martinez-Botella

Date: 2/10/2006

Commonwealth of Massachusetts County of VV 1 1000

2006, before me, the undersigned notary public, personally appeared Gabriel Martinez-Botella, proved to me through satisfactory evidence of identification 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.

My Commission Expires: 5

SUSAN BATTY-GUNN Notary Public

Commonwealth of Massachusetts My Commission Expires May 26, 2011

	(5) Judith Straub
	Date:
IN WITNESS WHEREOF, I have hereunto	set hand and seal
Signature of witness:	
Printed Name of Witness:	
this day of	
Date of Signing	a 2/
	(6) Qing Tang
	Date: 2/13/06
affirmed to me that the contents of the docu his/her knowledge and belief.  Supply Supply Notary Public	ment are truthful and accurate to the best of
My Commission Expires: 5 Holl.	GIICAN PATTY OUND

SUSAN BATTY-GUNN
Notary Public
Commonwealth of Massachusetts
My Commission Expires May 26, 2011

Attorney Docket No.: VPI/04-13 US

## **ASSIGNMENT**

We.

- Alex Aronov, of Watertown, MA;
- (2) Michael Hale, of Bedford, MA;
- Francois Maltais, of Tewksbury, MA;
- (4) Gabriel Martinez-Botella, of West Roxbury, MA;
- (5) Judith Straub, of Santa Cruz, CA; and
- (6) Qing Tang, of Acton, MA,

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Page 1 of 6

- (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;
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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) Alex Aronov
	Date:
Commonwealth of Massachusetts County of	
identification to be the person whose nar	06, before me, the undersigned notary public, and to me through satisfactory evidence of me is signed on this document, and who swore or occument are truthful and accurate to the best of
Notery Public My Commission Expires:	
	Mi had RHig
	(2) Michael Hale
	Date: Follo zerk
IN WITNESS WHEREOF, I have hereunt	to set hand and seal
Signature of witness:	
Printed Name of Witness: Jayach	aroran
this 10 day of <u>Feb 200 6</u> Date of signing	<u>_</u>

Page 3 of 6

	(3) François Maltais
	Date:
Commonwealth of Massachusetts County of	,
identification to be the person whose na	06, before me, the undersigned notary public, proved to me through satisfactory evidence of time is signed on this document, and who swore of document are truthful and accurate to the best of
Notary Public My Commission Expires:	
	(4) Gabriel Martinez-Botella
	Date:
Commonwealth of Massachusetts County of	
cardence of incumination to be the beizo	6, before me, the undersigned notary public, otella, proved to me through satisfactory on whose name is signed on this document, and needs of the document are truthful and accurate of.
Notary Public My Commission Expires:	

Page 4 of 6

	(5) Judith Straub
	Date:
IN WITNESS WHEREOF, I have hereu	
Signature of witness:	
Printed Name of Witness:	
this day of Date of signing	
	(6) Qing Tang
	Date:
Commonwealth of Massachusetts County of	
On this day of, 200 personally appeared Qing Tang, proved identification to be the person whose nar	95, before me, the undersigned notary public, to me through satisfactory evidence of me is signed on this document, and who swore or ocument are truthful and accurate to the best of
Notary Public My Commission Expires:	

Page 5 of 6

Attorney Docket No.: VPI/04-13 US

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PATENT REEL: 017436 FRAME: 0376

(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
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	(1) Alex Aronov
	Date:
Commonwealth of Massachusetts County of	
identification to be the person whose nam	6, before me, the undersigned notary public, to me through satisfactory evidence of e is signed on this document, and who swore or cument are truthful and accurate to the best of
Notary Public My Commission Expires:	
	(2) Michael Hale
	Date:
IN WITNESS WHEREOF, I have hereunto	set hand and seal
Signature of witness:	<u>.</u>
Printed Name of Witness:	
this day of Date of signing	··

PATENT REEL: 017436 FRAME: 0378

	(3) Francois Maltais
	Date:
Commonwealth of Massachusetts County of	
<u>-</u>	before me, the undersigned notary public, ed to me through satisfactory evidence of is signed on this document, and who swore or ment are truthful and accurate to the best of
Notary Public My Commission Expires:	
	(4) Gabriel Martinez-Botella
	Date:
Commonwealth of Massachusetts County of	
On this day of, 2006, before me, the undersigned notary public, personally appeared Gabriel Martinez-Botella, proved to me through satisfactory evidence of identification 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) Judith Straub
	Date: 2-20-06
IN WITNESS WHEREOF, I have hereunto	set hand and seal
Signature of witness:	<del></del>
Printed Name of Witness: Wather We;	trop
this 25 day of Felicated 2006  Date of signing	<i>:</i>
	(6) Qing Tang
	Date:
Commonwealth of Massachusetts County of	
	before me, the undersigned notary public, me through satisfactory evidence of is signed on this document, and who swore or ment are truthful and accurate to the best of
Notary Public	
My Commission Expires:	

ACKNOWLEDGMENT OF ASSIGNEE

Stephen L. Nesbitt

Chief Patent Counsel

Date: 4/3/04

Commonwealth of Massachusetts

County of Middlesiy

On this 3rd day of 1006, before me, the undersigned notary public, personally appeared Stephen L. Nesbitt, proved to me through satisfactory evidence of identification 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