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FORM PTO-1595  
(Rev. 6-93)  
OMB No. 0651-0011 (exp. 4/94)



DEPARTMENT OF COMMERCE  
and Trademark Office

FINANCE SECTION

102405285

Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):

3-27-03

- a) Andrea Robidoux;
- b) Siro Serafini;
- c) Petra Dieterich;
- d) Stephania Leonardi;
- e) John Stibbard

Additional name(s) of conveying party(ies) attached?  Yes  No

2. Name and address of receiving party(ies)

Name: Vertex Pharmaceuticals, Incorporated

Internal Address:

Street Address: 130 Waverly Street  
Cambridge, MA 02139-4242

Additional name(s) & address(es) attached?  Yes  No

3. Nature of conveyance:

- Assignment
- Security Agreement
- Other
- Merger
- Change of Name

Execution Date: a) 6/10/01; b) 6/5/01; c) 6/5/01; d) 6/5/01 and e) 6/5/01

4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is \_\_\_\_\_

A. Patent Application No(s):

10/168,463

B. Patent No(s):

Additional numbers attached?  Yes  No

5. Name and address of party to whom correspondence Concerning document should be mailed:

Name: Andrea L. C. Robidoux  
Address: VERTEX PHARMACEUTICALS INCORPORATED  
130 Waverly Street  
Cambridge, MA 02139-4242

6. Total number of applications and patents involved: [ 1 ]

7. Total fee (37 CFR 3.41) \$40.00

- Enclosed
- The Commissioner is authorized to charge Deposit Account No: 50-0725, Reference No. VPI/00-112 CON US.

DO NOT USE THIS SPACE

9. Statement and signature

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Andrea L. C. Robidoux, Reg. No. 47,902

March 27, 2003

Name of Person Signing

Signature

Date

Total number of pages including cover sheet, attachments, and document: [ 16 ]

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

BOX ASSIGNMENT  
Commissioner of Patents and Trademarks  
Washington, D.C. 20231

03/31/2003 DBYRNE 00000039 500725 10168463  
01 FC:8021 40.00 CH

PCT  
ASSIGNMENT

I/We,

- (1) Andrea Robidoux,
- (2) Siro Serafini,
- (3) Petra Dieterich,
- (4) Stephania Leonardi,
- (5) John Stibbard

residing, respectively, at

- (1) 180 Salem Street  
Andover, MA 01810 USA
- (2) Via Picutti 57  
I-36100 Vicenza IT
- (3) 3 Orchard Haven  
Dorchester-on-Thames, Oxofrdshire OX107JN UK
- (4) 21<sup>st</sup> Georges Road  
Wallingford, Oxfordshire OX10 8HW UK
- (5) 20 Fairacres Road  
Didcot, Oxfordshire OX11 8QG UK

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, MASSACHUSETTS 02139-4242, its successors and assigns: (1) the entire right, title and interest in all countries throughout the world in and to any and all my/our inventions and discoveries disclosed in my/our International Patent Application, filed under the Patent Cooperation Treaty in the United States Receiving Office (RO/US), entitled: "ASYMMETRIC SYNTHESIS OF PIPERAZIC ACID AND DERIVATIVES THEREOF" and designating Albania (AL), Algeria (DZ), Antigua & Barbuda (AG), Armenia (AM), Australia (AU), Austria (AT), Azerbaijan (AZ), Barbados (BB), Belarus (BY), Belgium (BE), Benin (BJ), Bosnia and Herzegovina (BA), Brazil (BR), Bulgaria (BG), Burkina Faso (BF), Belize (BZ), Cameroon (CM), Canada (CA), Central African Republic (CF), Chad (TD), China (CN), Columbia (CO), Congo (CG), Costa Rica (CR), Côte d'Ivoire (CI), Croatia (HR), Cuba (CU), Cyprus (CY), Czech Republic (CZ), Democratic People's Republic of Korea (KP), Denmark (DK), Dominica (DM), Estonia (EE), Finland (FI), France (FR), Gabon (GA), Gambia (GM), Georgia (GE), Germany (DE), Ghana (GH), Greece (GR), Grenada (GD), Guinea (GN), Guinea Bissau (GW), Hungary (HU), Iceland (IS), India (IN), Indonesia (ID), Ireland (IE), Israel (IL), Italy (IT), Japan (JP), Kazakstan (KZ), Kenya (KE), Kyrgyzstan (KG), Latvia (LV), Lesotho (LS), Liberia (LR), Liechtenstein (LI), Lithuania (LT), Luxembourg (LU), Madagascar (MG), former Yugoslav Republic of Macedonia (MK), Malawi (MW), Mali (ML), Mauritania (MR), Mexico

(MX), Monaco (MC), Mongolia (MN), Morocco (MA),  
Mozambique (MZ), Netherlands (NL), New Zealand (NZ),  
Niger (NE), Norway (NO), Poland (PL), Portugal (PT),  
Republic of Korea (KR), Republic of Moldova (MD), Romania  
(RO), Russian Federation (RU), Saint Lucia (LC), Senegal  
(SN), Sierra Leone (SL), Singapore (SG), Slovakia (SK),  
Slovenia (SI), South Africa (ZA), Spain (ES), Sri Lanka  
(LK), Sudan (SD), Swaziland (SZ), Sweden (SE),  
Switzerland (CH), Tajikistan (TJ), Tanzania (TZ), Togo  
(TG), Trinidad and Tobago (TT), Turkey (TR), Turkmenistan  
(TM), Uganda (UG), Ukraine (UA), United Arab Emirates  
(AE), United Kingdom (GB), United States of America (US),  
Uzbekistan (UZ), Viet Nam (VN), Yugoslavia (YU), and  
Zimbabwe (ZW), [subsequently identified as International  
Patent Application 10/168, 463, filed [6/14/2002] \*],  
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 VERTEX PHARMACEUTICALS INCORPORATED, its  
designee, or in my/our names at VERTEX PHARMACEUTICALS  
INCORPORATED, or its designee's election, on the  
aforesaid inventions, discoveries and applications in all  
countries of the world; (3) the entire right, title and  
interest in and to any Letters Patent which may issue on  
the aforesaid inventions, discoveries and applications in  
any country of the world and any renewals, revivals,

---

\* I/We hereby authorize VERTEX PHARMACEUTICALS INCORPORATED and  
its representatives to insert in this instrument the International  
Patent Application number and the filing date of said application  
when VERTEX PHARMACEUTICALS INCORPORATED is officially notified  
thereof.

reissues, reexaminations and extensions thereof, and any patents of confirmation, registration and importation of the same; 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 following priority application(s):

<u>60/202,104</u>	<u>United States</u>	<u>May 4, 2000</u>
application no.	country	filing date

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

I/We hereby authorize and request the competent authorities to grant and to issue any all such Letters Patent in any country throughout the world to VERTEX PHARMACEUTICALS INCORPORATED as 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.

I/We agree, at any time, upon the request of VERTEX PHARMACEUTICALS INCORPORATED to execute and to deliver to VERTEX PHARMACEUTICALS INCORPORATED 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.

page 4 of 8

I/We further agree, at any time, upon request of VERTEX PHARMACEUTICALS INCORPORATED to execute and to deliver to VERTEX PHARMACEUTICALS INCORPORATED 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 any and all rights of VERTEX PHARMACEUTICALS INCORPORATED 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.

ASSIGNORS:

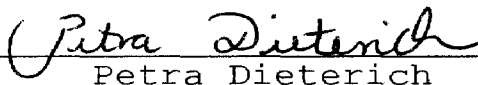


\_\_\_\_\_  
Andrea Robidoux

(1)

\_\_\_\_\_  
Siro Serafini

(2)



\_\_\_\_\_  
Petra Dieterich

(3)



\_\_\_\_\_  
Stephania Leonardi

(4)



\_\_\_\_\_  
John Stibbard

(5)

On this 10<sup>th</sup> day of June, 2001, Andrea Robidoux (1) personally appeared before me, a Notary Public in and for the Commonwealth of Massachusetts, and executed the foregoing Assignment and duly acknowledged to me that such Assignment was executed for the uses and purposes therein expressed.

*Walter Z. Topley*  
Notary Public

WALTER Z. TOPEY  
Notary Public  
My Commission Expires May 8, 2003

On this \_\_\_\_\_ day of \_\_\_\_\_, 2001, Siro Serafini (2) personally appeared before me, a Notary Public in and for the \_\_\_\_\_, and executed the foregoing Assignment and duly acknowledged to me that such Assignment was executed for the uses and purposes therein expressed.

Notary Public

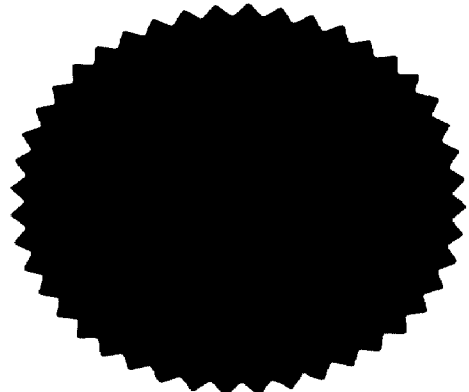
On this 5<sup>th</sup> day of June, 2001, Petra Dieterich (3) personally appeared before me, a Notary Public in and for the town of Newlyn, England, and executed the foregoing Assignment and duly acknowledged to me that such Assignment was executed for the uses and purposes therein expressed.

*Herby L. Shaw*

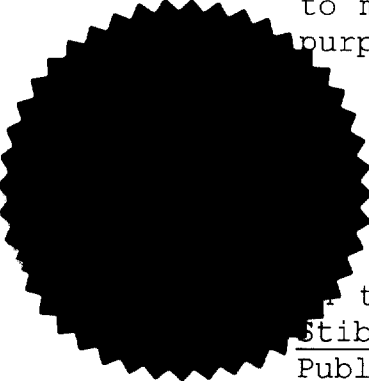
Notary Public

*My commission expired with hope*

**NIGEL P. S. SHAW,  
NOTARY PUBLIC,  
6 East Saint Helen Street  
Abingdon, Oxfordshire  
England, OX14 5EW**



On this 5<sup>th</sup> day of June, 2001 Stephania Leonardi (4) personally appeared before me, a Notary Public in and for the town of Abingdon, England, and executed the foregoing Assignment and duly acknowledged to me that such Assignment was executed for the uses and purposes therein expressed.

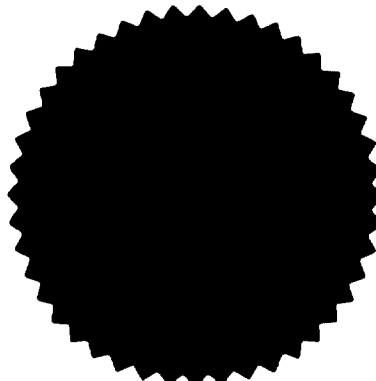
  
NOTARY PUBLIC  
6 EAST SAINT HELEN STREET  
ABINGDON, OXFORDSHIRE  
OX14 5EW

*Stephania Leonardi*  
Notary Public  
*My commission expires with wife*

On this 5<sup>th</sup> day of June, 2001 John Stibbard (5) personally appeared before me, a Notary Public in and for the town of Abingdon, England, and executed the foregoing Assignment and duly acknowledged to me that such Assignment was executed for the uses and purposes therein expressed.

*John Stibbard*  
Notary Public  
*My commission expires with wife*

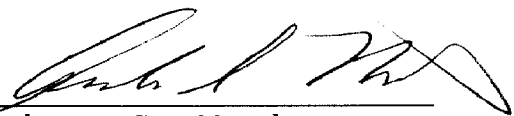
**NIGEL P. S. SHAW,  
NOTARY PUBLIC,  
6 East Saint Helen Street  
Abingdon, Oxfordshire  
England, OX14 5EW**





ACKNOWLEDGEMENT OF ASSIGNEE:

VERTEX PHARMACEUTICALS INCORPORATED

By:   
Andrew S. Marks  
Chief Patent Counsel

On this 10<sup>th</sup> day of June, 2001,  
Andrew S. Marks personally appeared before me, a Notary  
Public in and for the Commonwealth of Massachusetts, and  
duly acknowledged the executed Assignment on behalf of  
the Assignee.

  
Notary Public

**ERYLLIS A. TOBEY**  
Notary Public  
My Commission Expires May 8, 2003

PCT  
ASSIGNMENT

I/We,

- (1) Andrea Robidoux,
- (2) Siro Serafini,
- (3) Petra Dieterich,
- (4) Stephania Leonardi,
- (5) John Stibbard

residing, respectively, at

- (1) 180 Salem Street  
Andover, MA 01810 USA
- (2) Via Picutti 57  
I-36100 Vicenza IT
- (3) 3 Orchard Haven  
Dorchester-on-Thames, Oxofrdshire OX107JN UK
- (4) 21<sup>st</sup> Georges Road  
Wallingford, Oxfordshire OX10 8HW UK
- (5) 20 Fairacres Road  
Didcot, Oxfordshire OX11 8QG UK

*S. Serafini*



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, MASSACHUSETTS 02139-4242, its successors and assigns: (1) the entire right, title and interest in all countries throughout the world in and to any and all my/our inventions and discoveries disclosed in my/our International Patent Application, filed under the Patent Cooperation Treaty in the United States Receiving Office (RO/US), entitled: "ASYMMETRIC SYNTHESIS OF PIPERAZIC ACID AND DERIVATIVES THEREOF" and designating Albania (AL), Algeria (DZ), Antigua & Barbuda (AG), Armenia (AM), Australia (AU), Austria (AT), Azerbaijan (AZ), Barbados (BB), Belarus (BY), Belgium (BE), Benin (BJ), Bosnia and Herzegovina (BA), Brazil (BR), Bulgaria (BG), Burkina Faso (BF), Belize (BZ), Cameroon (CM), Canada (CA), Central African Republic (CF), Chad (TD), China (CN), Columbia (CO), Congo (CG), Costa Rica (CR), Côte d'Ivoire (CI), Croatia (HR), Cuba (CU), Cyprus (CY), Czech Republic (CZ), Democratic People's Republic of Korea (KP), Denmark (DK), Dominica (DM), Estonia (EE), Finland (FI), France (FR), Gabon (GA), Gambia (GM), Georgia (GE), Germany (DE), Ghana (GH), Greece (GR), Grenada (GD), Guinea (GN), Guinea Bissau (GW), Hungary (HU), Iceland (IS), India (IN), Indonesia (ID), Ireland (IE), Israel (IL), Italy (IT), Japan (JP), Kazakstan (KZ), Kenya (KE), Kyrgyzstan (KG), Latvia (LV), Lesotho (LS), Liberia (LR), Liechtenstein (LI), Lithuania (LT), Luxembourg (LU), Madagascar (MG), former Yugoslav Republic of Macedonia (MK), Malawi (MW), Mali (ML), Mauritania (MR), Mexico

*Lana Perolinski*



(MX), Monaco (MC), Mongolia (MN), Morocco (MA),  
Mozambique (MZ), Netherlands (NL), New Zealand (NZ),  
Niger (NE), Norway (NO), Poland (PL), Portugal (PT),  
Republic of Korea (KR), Republic of Moldova (MD), Romania  
(RO), Russian Federation (RU), Saint Lucia (LC), Senegal  
(SN), Sierra Leone (SL), Singapore (SG), Slovakia (SK),  
Slovenia (SI), South Africa (ZA), Spain (ES), Sri Lanka  
(LK), Sudan (SD), Swaziland (SZ), Sweden (SE),  
Switzerland (CH), Tajikistan (TJ), Tanzania (TZ), Togo  
(TG), Trinidad and Tobago (TT), Turkey (TR), Turkmenistan  
(TM), Uganda (UG), Ukraine (UA), United Arab Emirates  
(AE), United Kingdom (GB), United States of America (US),  
Uzbekistan (UZ), Viet Nam (VN), Yugoslavia (YU), and  
Zimbabwe (ZW), [subsequently identified as International  
Patent Application 10/168,463, filed 6/14/2002\*,  
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 VERTEX PHARMACEUTICALS INCORPORATED, its  
designee, or in my/our names at VERTEX PHARMACEUTICALS  
INCORPORATED, or its designee's election, on the  
aforesaid inventions, discoveries and applications in all  
countries of the world; (3) the entire right, title and  
interest in and to any Letters Patent which may issue on  
the aforesaid inventions, discoveries and applications in  
any country of the world and any renewals, revivals,

\* I/We hereby authorize VERTEX PHARMACEUTICALS INCORPORATED and  
its representatives to insert in this instrument the International  
Patent Application number and the filing date of said application  
when VERTEX PHARMACEUTICALS INCORPORATED is officially notified  
thereof.

*Geno Seraphim*



reissues, reexaminations and extensions thereof, and any patents of confirmation, registration and importation of the same; 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 following priority application(s):

<u>60/202,104</u> application no.	<u>United States</u> country	<u>May 4, 2000</u> filing date
--------------------------------------	---------------------------------	-----------------------------------

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

I/We hereby authorize and request the competent authorities to grant and to issue any all such Letters Patent in any country throughout the world to VERTEX PHARMACEUTICALS INCORPORATED as 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.

I/We agree, at any time, upon the request of VERTEX PHARMACEUTICALS INCORPORATED to execute and to deliver to VERTEX PHARMACEUTICALS INCORPORATED 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.

page 4 of 8

*Lero Senofusini*



I/We further agree, at any time, upon request of VERTEX PHARMACEUTICALS INCORPORATED to execute and to deliver to VERTEX PHARMACEUTICALS INCORPORATED 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 any and all rights of VERTEX PHARMACEUTICALS INCORPORATED 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.

ASSIGNORS:



Andrea Robidoux



(1)



Siro Serafini

(2)

(3)

Petra Dieterich

(4)

Stephania Leonardi

(5)

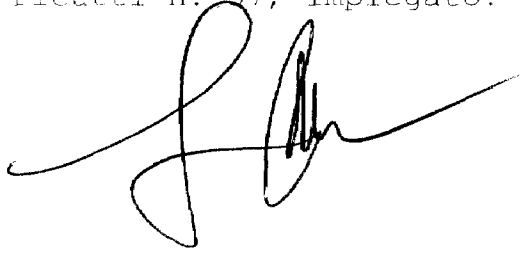
John Stibbard

Rep. n. 8851

Vicenza, Via Carlo Cattaneo n. 54, 24 (ventiquattro) maggio  
2001 (duemilauno)

Io dottor Giovanni Muraro, notaio del Collegio Notarile dei  
Distretti Riuniti di Vicenza e Bassano del Grappa, con sede a  
Breganze, a norma dell'art. 72 L. 16 febbraio 1913, n. 89,  
attesto che - previa rinuncia ai testimoni avvenuta col mio  
consenso - l'atto è stato sottoscritto in mia presenza dalla  
parte, della cui identità personale, sono certo:

**SERAFINI SIRO** nato a Lonigo (VI) il 17 maggio 1954, residente  
a Vicenza, via Picutti n. 57, impiegato.

A handwritten signature in black ink, appearing to be 'S. Serafini', written in a cursive style.

On this \_\_\_\_\_ day of \_\_\_\_\_, 2001, Andrea Robidoux (1) personally appeared before me, a Notary Public in and for the Commonwealth of Massachusetts, and executed the foregoing Assignment and duly acknowledged to me that such Assignment was executed for the uses and purposes therein expressed.

Notary Public

On this 5<sup>th</sup> day of June, 2001, Siro Serafini (2) personally appeared before me, a Notary Public in and for the \_\_\_\_\_, and executed the foregoing Assignment and duly acknowledged to me that such Assignment was executed for the uses and purposes therein expressed.

Notary Public

On this \_\_\_\_\_ day of \_\_\_\_\_, 2001, Petra Dieterich (3) personally appeared before me, a Notary Public in and for the \_\_\_\_\_, and executed the foregoing Assignment and duly acknowledged to me that such Assignment was executed for the uses and purposes therein expressed.

Notary Public



On this \_\_\_\_\_ day of \_\_\_\_\_, 2001 Stephania Leonardi (4) personally appeared before me, a Notary Public in and for the \_\_\_\_\_, and executed the foregoing Assignment and duly acknowledged to me that such Assignment was executed for the uses and purposes therein expressed.

Notary Public

On this \_\_\_\_\_ day of \_\_\_\_\_, 2001 John Stibbard (5) personally appeared before me, a Notary Public in and for the \_\_\_\_\_, and executed the foregoing Assignment and duly acknowledged to me that such Assignment was executed for the uses and purposes therein expressed.

Notary Public

page 7 of 8