

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT2601709

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
LAVAL CHAN CHUN KONG	10/21/2008
SANJOY KUMAR DAS	10/21/2008
NGHE NGUYEN-BA	10/21/2008
LILIANE HALAB	10/21/2008
BETTINA HAMELIN	10/13/2008
OSWY Z. PEREIRA	10/21/2008
CARL POISSON	10/21/2008
MELANIE PROULX	10/07/2008
THUMKUNTA JAGADEESWAR REDDY	10/23/2008
MING-QIANG ZHANG	10/09/2008

RECEIVING PARTY DATA

Name:	SHIRE BIOCHEM INC.
Street Address:	2250 ALFRED-NOBEL BLVD.
Internal Address:	SUITE 500
City:	VILLE SAINT-LAURENT, QUEBEC
State/Country:	CANADA
Postal Code:	HAS 2C9

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	13690290

CORRESPONDENCE DATA

Fax Number:
 Email: leslie_garbarczuk@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

CH \$40.00 13690290

Address Line 4: CAMBRIDGE, MASSACHUSETTS 02139

ATTORNEY DOCKET NUMBER: PHAR-135 US CN2

NAME OF SUBMITTER: LESLIE GARBARCZUK

Signature: /Leslie Garbarczuk/

Date: 11/04/2013

Total Attachments: 4

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CONFIRMATORY ASSIGNMENT

ATTY. DOCKET NO.: VIRO-5

WHEREAS the below named inventor (if only one inventor is named below) or inventors (if plural inventors are named below) hereinafter referred to as the ASSIGNOR invented a certain improvement(s) relating to

COMPOUNDS AND METHODS FOR THE TREATMENT OR PREVENTION OF FLAVIVIRUS INFECTIONS

- for which an application for Letters Patent to be filed in the United States Patent and Trademark Office was executed on even date.
- for which U.S. Application Serial No. 10/730,272 for Letters Patent was filed in the U.S. Patent and Trademark Office on December 9, 2003
- for which an International Application was filed on _____ as _____, designating the United States.

AND WHEREAS

Shire Biochem Inc.
2250 Alfred-Nobel Blvd., Suite 500
Ville Saint-Laurent, Quebec HAS 2C9
CANADA

hereinafter referred to as the ASSIGNEE, was the employer of the below named inventors at the time the invention was made and thus was entitled to the entire right, title, and interest in and to said invention and application(s), including any and all earlier priority rights (U.S. and foreign), divisions and continuations thereof, and any and all Letters Patent which may be granted thereon, including any and all renewals, reissues, reexaminations and extensions thereof.

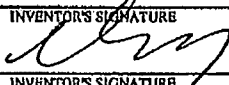
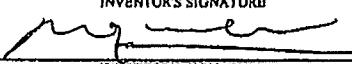


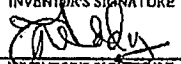
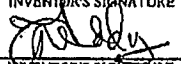
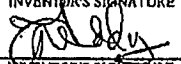
NOW, WITNESSETH that for good and valuable consideration, the receipt whereof is hereby acknowledged, ASSIGNOR hereby confirms that they have assigned, sold, and transferred to ASSIGNEE, its assigns and legal representatives, as of the date of the invention, which was prior to the filing of the instant application on December 9, 2003, the entire and exclusive right, title and interest in and to said invention and application(s), including any and all divisions and continuations thereof, and any and all Letters Patent which may be granted therefor, including any and all renewals, reissues, reexaminations and extensions thereof, and in and to any and all U.S. (including provisional) or foreign priority and/or convention rights or benefits accruing or to accrue with respect to the filing or securing of patents in the United States and/or any countries foreign thereto concerning said invention, SAID ASSIGNEE, its assigns and legal representatives to have, hold, exercise, and enjoy said invention and application, including any and all earlier priority rights (U.S. and foreign), divisions and continuations thereof, and any and all Letters Patent which may be granted therefor, including any and all renewals, reissues, reexaminations and extensions thereof, with all the rights, powers, privileges and advantages in anywise arising from or appertaining thereto, for and during the term or terms of any and all such Letters Patent when granted, including any and all renewals, reissues, reexaminations and extensions thereof, for the use and benefit of ASSIGNEE and its assigns and legal representatives; in as ample and beneficial a manner to all intents and purposes as the ASSIGNOR might or could have held and enjoyed the same, if the assignment had not been made.

AND ASSIGNOR hereby agrees to execute all papers that may be necessary to file applications in the United States and foreign countries for said invention and to assign the same to said ASSIGNEE, its assigns and legal representatives and to execute any other papers that may be needed in connection with filing said applications and securing Letters Patents thereon.

AND ASSIGNOR authorizes and requests the Commissioner of Patents and Trademarks to issue a Letters Patent on said application, and on any and all divisions and continuations thereof, to ASSIGNEE, its assigns and legal representatives, in accordance herewith.

The undersigned hereby grant(s) the law firm of Millen, White, Zelano & Branigan, P.C. the power to insert on this assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

IN TESTIMONY WHEREOF this assignment is executed by ASSIGNOR

201 FULL NAME OF SOLE OR FIRST NAMED INVENTOR	INVENTOR'S SIGNATURE	DATE
Laval Chan Chun Kong		October 21, 2008
202 FULL NAME OF SECOND JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE
Sanjoy Kumar Das	Sanjoy Kumar Das	October 21-08
203 FULL NAME OF THIRD JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE
Nghe Nguyen-Ba		October 21-08
204 FULL NAME OF FOURTH JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE
Lilane Halab	Lilane Halab	October 21, 2008
205 FULL NAME OF FIFTH JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE
Bettina Hamelin		October 21-08
206 FULL NAME OF SIXTH JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE
Oswy Z. Pereira		October 21, 2008
207 FULL NAME OF SEVENTH JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE
Carl Poisson	Carl Poisson	October 21, 2008
208 FULL NAME OF EIGHTH JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE
Melanie Proulx		October 23, 2008
209 FULL NAME OF NINTH JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE
Thumkunta Jagadeeswar Reddy		October 23, 2008
210 FULL NAME OF TENTH JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE
Ming-Qiang Zhang		

CONFIRMATORY ASSIGNMENT

ATTY. DOCKET NO.:VIRO-5

WHEREAS the below named inventor (if only one inventor is named below) or inventors (if plural inventors are named below) hereinafter referred to as the ASSIGNOR invented a certain improvement(s) relating to

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AND WHEREAS

Shiro Biochem Inc.
2250 Alfred-Nobel Blvd., Suite 500
Ville Saint-Laurent, Quebec HAS 2C9
CANADA

hereinafter referred to as the ASSIGNEE, was the employer of the below named inventors at the time the invention was made and thus was entitled to the entire right, title, and interest in and to said invention and application(s), including any and all earlier priority rights (U.S. and foreign), divisions and continuations thereof, and any and all Letters Patent which may be granted thereon, including any and all renewals, reissues, reexaminations and extensions thereof.


NOW, WITNESSETH that for good and valuable consideration, the receipt whereof is hereby acknowledged, ASSIGNOR hereby confirms that they have assigned, sold, and transferred to ASSIGNEE, its assigns and legal representatives, as of the date of the invention, which was prior to the filing of the instant application on December 9, 2003, the entire and exclusive right, title and interest in and to said invention and application(s), including any and all divisions and continuations thereof, and any and all Letters Patent which may be granted therefor, including any and all renewals, reissues, reexaminations and extensions thereof, and in and to any and all U.S. (including provisional) or foreign priority and/or convention rights or benefits accruing or to accrue with respect to the filing or securing of patents in the United States and/or any countries foreign thereto concerning said invention, SAID ASSIGNEE, its assigns and legal representatives to have, hold, exercise, and enjoy said invention and application, including any and all earlier priority rights (U.S. and foreign), divisions and continuations thereof, and any and all Letters Patent which may be granted therefor, including any and all renewals, reissues, reexaminations and extensions thereof, with all the rights, powers, privileges and advantages in anywise arising from or appertaining thereto, for and during the term or terms of any and all such Letters Patent when granted, including any and all renewals, reissues, reexaminations and extensions thereof, for the use and benefit of ASSIGNEE and its assigns and legal representatives, in as ample and beneficial a manner to all intents and purposes as the ASSIGNOR might or could have held and enjoyed the same, if the assignment had not been made.

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Laval Chan Chun Kong		
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204 FULL NAME OF FOURTH JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE
Lilane Halab		
205 FULL NAME OF FIFTH JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE
Bettina Hamelin		Oct 13, 2008
206 FULL NAME OF SIXTH JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE
Oswy Z. Pereira		
207 FULL NAME OF SEVENTH JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE
Carl Poisson		
208 FULL NAME OF EIGHTH JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE
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2150 Alfred Nobel Blvd., Suite 500
Ville Saint-Laurent, Quebec H4S 2C9
CANADA

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208. FULL NAME OF EIGHTH JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE
Melanie Proulx	<i>Melanie Proulx</i>	7 Oct 2008
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Thumkunta Jagndeeswar Reddy		
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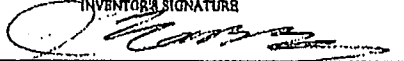
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Ming-Qiang Zhang		9/10/03

PATENT