

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
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EPAS ID: PAT3053112

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
WOLFGANG MARTERER	07/12/2012
BERTRAND SUTTER	07/12/2012
JEAN-CLAUDE BIANCHI	07/12/2012
MASSIMO PIGNONE	07/12/2012
DORIS STINGELIN	07/12/2012
ECKART BUERGER	07/12/2012
MAHAVIR PRASHAD	08/22/2012
EDWIN BERNARD VILLHAUER	08/22/2012
LILADHAR MURLIDHAR WAYKOLE	08/22/2012
JAMES ANTHONY VIVelo	08/22/2012
RAEANN WU	08/22/2012
DENIS HAR	08/22/2012
PIOTR H. KARPINSKI	08/22/2012
RECEIVING PARTY DATA	
Name:	NOVARTIS AG
Street Address:	LICHTSTRASSE 35
City:	BASEL
State/Country:	SWITZERLAND
Postal Code:	4056
PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	14232717
CORRESPONDENCE DATA	
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<i>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.</i>	
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PATENT

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ATTORNEY DOCKET NUMBER:	093286-0215
NAME OF SUBMITTER:	PAUL D. STRAIN
SIGNATURE:	/Paul D. Strain/
DATE SIGNED:	10/06/2014

Total Attachments: 27

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ASSIGNMENT COVER LETTER

U.S. Application No. 14/232,717, filed March 28, 2014

Title: SALTS OF AZA-BICYCLIC DI-ARYL ETHERS AND METHODS TO MAKE THEM OR THEIR PRECURSORS

Assignment from:

Wolfgang MARTERER	To:	NOVARTIS PHARMA AG	Executed: 06/19/2012
Bertrand SUTTER	To:	NOVARTIS PHARMA AG	Executed: 06/26/2012
Jean-Claude BIANCHI	To:	NOVARTIS PHARMA AG	Executed: 07/13/2012
Massimo PIGNONE	To:	NOVARTIS PHARMA AG	Executed: 06/26/2012
Doris STINGELIN	To:	NOVARTIS PHARMA AG	Executed: 06/26/2012
Eckart BUERGER	To:	NOVARTIS PHARMA AG	Executed: 07/13/2012

Assignment from:

NOVARTIS PHARMA AG	To:	NOVARTIS AG	Executed: 07/12/2012
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Assignment from:

Mahavir PRASHAD	To:	NOVARTIS PHARMACEUTICALS CORPORATION	Executed: 08/14/2012
Edwin Bernard VILLHAUER	To:	NOVARTIS PHARMACEUTICALS CORPORATION	Executed: 08/14/2012
Liladhar Murlidhar WAYKOLE	To:	NOVARTIS PHARMACEUTICALS CORPORATION	Executed: 08/20/2012
James Anthony VIVELO	To:	NOVARTIS PHARMACEUTICALS CORPORATION	Executed: 08/21/2012
Raeann WU	To:	NOVARTIS PHARMACEUTICALS CORPORATION	Executed: 08/14/2012
Denis HAR	To:	NOVARTIS PHARMACEUTICALS CORPORATION	Executed: 08/20/2012
Piotr H. KARPINSKI	To:	NOVARTIS PHARMACEUTICALS CORPORATION	Executed: 08/14/2012

Assignment from:

NOVARTIS PHARMACEUTICALS CORPORATION	To:	NOVARTIS AG	Executed: 08/22/2012
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ASSIGNMENT

This Assignment Agreement is entered into by and between

Wolfgang MARTERER	citizen of Germany	Ferdinand-Kopf-Str. 6A 79117 Freiburg i.B. DE
Bertrand SUTTER	citizen of France	6 Rue des Pins 68220 Hesingue FR
Jean-Claude BIANCHI	citizen of France	Rue Kellergraben 68730 Biotzheim FR
Massimo PIGNONE	citizen of Italy	Novartis Pharma AG Postfach 4002 Basel Switzerland
Doris STINGELIN	citizen of Switzerland	Novartis Pharma AG Postfach 4002 Basel Switzerland
Eckart BUEGER	citizen of Switzerland <i>Germany</i>	Hubelweg 12 3098 Köniz Switzerland

(hereinafter "Inventor(s)"), and **NOVARTIS PHARMA AG**, Lichtstrasse 35,4056 Basel, Switzerland, a company organized under the laws of Switzerland.

For good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, I/We the Inventor(s) do hereby confirm and agree that, by operation of law and/or contract, and/or by the fulfillment of any and all legal requirements regarding the transfer of employee inventions in my/our country of employment, NOVARTIS PHARMA AG is the true and lawful owner of all right, title and interest in all inventions, discoveries, patents/utility models, applications, and rights described in paragraphs (1) through (8) below.

If, however, under the laws of any country, I/We the Inventor(s) nevertheless have any ownership right, title or interest in any of the items described herein (which I/We do not believe to be the case and make no claim in or to), for good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, I/We the Inventor(s) do hereby sell, assign and

transfer to NOVARTIS PHARMA AG and its successors, assigns and legal representatives (hereinafter referred to collectively as the "ASSIGNEE"), all of our right, title and interest for all countries of the world in and to

(1) all of our inventions and discoveries described in the provisional or non-provisional patent, utility model, or other application(s) entitled

"SALTS OF AZA-BICYCLIC DI-ARYL ETHERS AND METHODS TO MAKE THEM OR THEIR PRECURSORS" [Patent Case 54620]

and filed in the _____ Office on _____, 20____ and accorded Application Number _____ and/or filed as a PCT International Application on _____, 20____ and accorded International Patent Application Number PCT/_____; and/or filed in the United States Patent and Trademark Office on 15 July, 2011 and accorded Application Number 61/508,147;

(2) the application(s) identified in paragraph (1), and all applications claiming priority from such application(s), directly or indirectly, including all national stages of any international patent application(s);

(3) the right to file patent, utility model, or other applications on any invention or discovery disclosed in any of the applications identified in paragraphs (1) and (2), including the right to file such applications on said inventions and discoveries in the names of ASSIGNEE or their designees or in our/my name, at ASSIGNEE's election and in accordance with applicable law in all countries and regions; and the right to file all patent, utility model, or other applications in all countries and regions claiming the priority of any of the provisional or non-provisional application(s) identified in paragraphs (1) or (2);

(4) all rights to claim priority from any of the applications referred to in paragraphs (1), (2), and (3) or from any application from which any of the applications referred to in paragraphs (1), (2) and (3) claim priority in all countries and regions under the Paris Convention for the Protection of Industrial Property, the WTO GATT TRIPS Agreement, the Inter-American Convention relating to Inventions, Patents, Designs, and Industrial Models and all other international agreements to which the United States now is or hereafter becomes a signatory and, if the United States patent application is a provisional patent application, under 35 USC 119(e);

(5) all continuations, continuations-in-part, and divisionals of any United States patent application(s) or international patent application(s) designating the United States, any national stages of any international application(s), and any other patent application(s) described in paragraphs (1) through (4) hereof, including further continuations, continuations-in-part, and divisionals such as, but not limited to, continuations of continuations and continuations of divisionals;

(6) all patents, utility models, or other grants that issue from any of the applications referred to herein and all rights and remedies associated therewith including the right to sue for

and recover past damages and to recover under 35 U.S.C. § 154 (d) or any other law permitting remedies for infringement prior to issuance of the patent;

(7) all registrations and confirmations of, and importation certificates based upon, one or more of said patents, utility models, or other grants, and applications for such registrations, confirmations and importation certificates and;

(8) all reissues, renewals and extensions of said patents, utility models, registrations, confirmations and importation certificates, reexamination certificates issued for said patents and supplementary protection certificates based upon said patents and applications for such reissues, renewals, extensions, reexamination certificates and supplementary protection certificates, the same to be held and enjoyed by said ASSIGNEE to the full ends of the terms for which said patents, utility models, registrations, confirmations, importation certificates, reexamination certificates, supplementary protection certificates, reissues, renewals and extensions may be granted, as fully and entirely as the same would have been held and enjoyed by me/us if this sale, assignment and transfer had not been made.

I/We the Inventor(s) hereby authorize ASSIGNEE and their representatives to insert in paragraph (1) of this Assignment the filing date(s) and Application Number(s) of said patent, utility model, or other application(s) when notified thereof.

I/We the Inventor(s) hereby covenant and agree that I/We will, at any time, (i) upon the request, but at the expense, of ASSIGNEE, execute and deliver all documents that may be necessary or desirable to perfect the title to the foregoing inventions and discoveries, applications, patents, utility models, registrations, confirmations, importation certificates, reissues, renewals, extensions, reexamination certificates, supplementary protection certificates, and applications within the scope of (7) and (8), in ASSIGNEE, including the execution and procurement of all further documents evidencing this sale, assignment and transfer as may be necessary or desirable for recording the same in the patent office or other intellectual property office, agency or the like of any country or region, (ii) upon the request, but at the expense, of ASSIGNEE execute all additional applications within the scope of paragraphs (1) through (6) and all applications within the scope of (7) or (8), and (iii) make all rightful oaths and declarations and do all lawful acts requisite for procuring the same or for aiding therein, without further compensation, but at the expense of ASSIGNEE .

Should any provision of this Assignment be deemed invalid or unenforceable by reason of any law, statute, regulation or judgment, existing now or in the future in any jurisdiction, such provision shall be modified in such jurisdiction so as to nearly approximate the intent of the Parties. If this cannot be done, such invalid or unenforceable provision shall be divisible and be deleted in any such jurisdiction, and all other provisions shall remain in full force and effect. The modification or deletion of any provision in one jurisdiction shall have no effect on this Assignment in any other jurisdiction.

This Assignment is effective as from the earliest priority date as stated above.

Executed this _____ day of _____, 20 .

L.S.
Wolfgang Marterer

Executed this _____ day of _____, 20 .

L.S.
Bertrand Sutter

Executed this _____ day of _____, 20 .

L.S.
Jean-Claude Bianchi

Executed this _____ day of _____, 20 .

L.S.
Massimo Pignone

Executed this _____ day of _____, 20 .

L.S.
Doris Stingelin

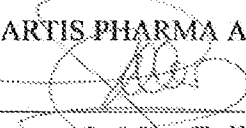
Executed this 15th day of July, 2012

Eckart Buerger

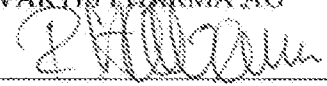
L.S.
Eckart Buerger

Executed this 15th day of July, 2012

NOVARTIS PHARMA AG

BY  L.S.
Sabine Zeller
Authorized signatory

NOVARTIS PHARMA AG

BY  L.S.
Reto Halbeisen
Authorized signatory

ASSIGNMENT

This Assignment Agreement is entered into by and between

Wolfgang MARTERER	citizen of Germany	Novartis Pharma AG Postfach 4002 Basel Switzerland
Bertrand SUTTER	citizen of France	Novartis Pharma AG Postfach 4002 Basel Switzerland
Jean-Claude BIANCHI	citizen of France	Novartis Pharma AG Postfach 4002 Basel Switzerland
Massimo PIGNONE	citizen of Italy	Novartis Pharma AG Postfach 4002 Basel Switzerland
Doris STINGELIN	citizen of Switzerland	Novartis Pharma AG Postfach 4002 Basel Switzerland
Eckart BUEGER	citizen of Switzerland <i>Germany</i>	Hubelweg 12 3098 K�niz Switzerland

(hereinafter "Inventor(s)"), and **NOVARTIS PHARMA AG**, Lichtstrasse 35, 4056 Basel, Switzerland, a company organized under the laws of Switzerland.

For good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, I/We the Inventor(s) do hereby confirm and agree that, by operation of law and/or contract, and/or by the fulfillment of any and all legal requirements regarding the transfer of employee inventions in my/our country of employment, NOVARTIS PHARMA AG is the true and lawful owner of all right, title and interest in all inventions, discoveries, patents/utility models, applications, and rights described in paragraphs (1) through (8) below.

If, however, under the laws of any country, I/We the Inventor(s) nevertheless have any ownership right, title or interest in any of the items described herein (which I/We do not believe to be the case and make no claim in or to), for good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, I/We the Inventor(s) do hereby sell, assign and transfer to NOVARTIS PHARMA AG and its successors, assigns and legal representatives (hereinafter referred to collectively as the "ASSIGNEE"), all of our right, title and interest for all countries of the world in and to

(1) all of our inventions and discoveries described in the provisional or non-provisional patent, utility model, or other application(s) entitled

"SALTS OF AZA-BICYCLIC DI-ARYL ETHERS AND METHODS TO MAKE THEM OR THEIR PRECURSORS" [Patent Case 54620]

and filed in the _____ Office on _____, 20____ and accorded Application Number _____ and/or filed as a PCT International Application on _____, 20____ and accorded International Patent Application Number PCT/_____; and/or filed in the United States Patent and Trademark Office on 15 July, 2011 and accorded Application Number 61/508,147;

(2) the application(s) identified in paragraph (1), and all applications claiming priority from such application(s), directly or indirectly, including all national stages of any international patent application(s);

(3) the right to file patent, utility model, or other applications on any invention or discovery disclosed in any of the applications identified in paragraphs (1) and (2), including the right to file such applications on said inventions and discoveries in the names of ASSIGNEE or their designees or in our/my name, at ASSIGNEE's election and in accordance with applicable law in all countries and regions; and the right to file all patent, utility model, or other applications in all countries and regions claiming the priority of any of the provisional or non-provisional application(s) identified in paragraphs (1) or (2);

(4) all rights to claim priority from any of the applications referred to in paragraphs (1), (2), and (3) or from any application from which any of the applications referred to in paragraphs (1), (2) and (3) claim priority in all countries and regions under the Paris Convention for the Protection of Industrial Property, the WTO GATT TRIPS Agreement, the Inter-American Convention relating to Inventions, Patents, Designs, and Industrial Models and all other international agreements to which the United States now is or hereafter becomes a signatory and, if the United States patent application is a provisional patent application, under 35 USC 119(e);

(5) all continuations, continuations-in-part, and divisionals of any United States patent application(s) or international patent application(s) designating the United States, any national stages of any international application(s), and any other patent application(s) described in paragraphs (1) through (4) hereof, including further continuations, continuations-in-part, and divisionals such as, but not limited to, continuations of continuations and continuations of divisionals;

(6) all patents, utility models, or other grants that issue from any of the applications referred to herein and all rights and remedies associated therewith including the right to sue for and recover past damages and to recover under 35 U.S.C. § 154 (d) or any other law permitting remedies for infringement prior to issuance of the patent;

(7) all registrations and confirmations of, and importation certificates based upon, one or more of said patents, utility models, or other grants, and applications for such registrations, confirmations and importation certificates and;

(8) all reissues, renewals and extensions of said patents, utility models, registrations, confirmations and importation certificates, reexamination certificates issued for said patents and supplementary protection certificates based upon said patents and applications for such reissues, renewals, extensions, reexamination certificates and supplementary protection certificates, the same to be held and enjoyed by said ASSIGNEE to the full ends of the terms for which said patents, utility models, registrations, confirmations, importation certificates, reexamination certificates, supplementary protection certificates, reissues, renewals and extensions may be granted, as fully and entirely as the same would have been held and enjoyed by me/us if this sale, assignment and transfer had not been made.

I/We the Inventor(s) hereby authorize ASSIGNEE and their representatives to insert in paragraph (1) of this Assignment the filing date(s) and Application Number(s) of said patent, utility model, or other application(s) when notified thereof.

I/We the Inventor(s) hereby covenant and agree that I/We will, at any time, (i) upon the request, but at the expense, of ASSIGNEE, execute and deliver all documents that may be necessary or desirable to perfect the title to the foregoing inventions and discoveries, applications, patents, utility models, registrations, confirmations, importation certificates, reissues, renewals, extensions, reexamination certificates, supplementary protection certificates, and applications within the scope of (7) and (8), in ASSIGNEE, including the execution and procurement of all further documents evidencing this sale, assignment and transfer as may be necessary or desirable for recording the same in the patent office or other intellectual property office, agency or the like of any country or region, (ii) upon the request, but at the expense, of ASSIGNEE execute all additional applications within the scope of paragraphs (1) through (6) and all applications within the scope of (7) or (8), and (iii) make all rightful oaths and declarations and do all lawful acts requisite for procuring the same or for aiding therein, without further compensation, but at the expense of ASSIGNEE .

Should any provision of this Assignment be deemed invalid or unenforceable by reason of any law, statute, regulation or judgment, existing now or in the future in any jurisdiction, such provision shall be modified in such jurisdiction so as to nearly approximate the intent of the Parties. If this cannot be done, such invalid or unenforceable provision shall be divisible and be deleted in any such jurisdiction, and all other provisions shall remain in full force and effect. The modification or deletion of any provision in one jurisdiction shall have no effect on this Assignment in any other jurisdiction.

This Assignment is effective as from the earliest priority date as stated above.

Executed this _____ day of _____, 20 .

_____. L.S.

Wolfgang Marterer

Executed this _____ day of _____, 20 .

_____. L.S.

Bertrand Sutter

Executed this _____ day of _____, 20 .

_____. L.S.

Jean-Claude Bianchi

Executed this 13 day of July, 2012

_____. L.S.

~~Massimo Pignone~~

Executed this _____ day of _____, 20 .

_____. L.S.

Doris Stingelin

Executed this _____ day of _____, 20 .

_____. L.S.

Eckart Buerger

Executed this _____ day of _____, 20 .

Patent Case 54620

NOVARTIS PHARMA AG

BY _____ L.S.

Sabine Zeller
Authorized signatory

NOVARTIS PHARMA AG

BY E. Rutschmann L.S.

Ella Rutschmann
Authorized signatory

ASSIGNMENT

This Assignment Agreement is entered into by and between

Wolfgang MARTERER	citizen of Germany	Novartis Pharma AG Postfach 4002 Basel Switzerland
Bertrand SUTTER	citizen of France	Novartis Pharma AG Postfach 4002 Basel Switzerland
Jean-Claude BIANCHI	citizen of France	Novartis Pharma AG Postfach 4002 Basel Switzerland
Massimo PIGNONE	citizen of Italy	Novartis Pharma AG Postfach 4002 Basel Switzerland
Doris STINGELIN	citizen of Switzerland	Novartis Pharma AG Postfach 4002 Basel Switzerland
Eckart BUERGER	citizen of Switzerland <i>Germany</i>	Hubelweg 12 3098 K�niz Switzerland

(hereinafter "Inventor(s)"), and **NOVARTIS PHARMA AG**, Lichtstrasse 35, 4056 Basel, Switzerland, a company organized under the laws of Switzerland.

For good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, I/We the Inventor(s) do hereby confirm and agree that, by operation of law and/or contract, and/or by the fulfillment of any and all legal requirements regarding the transfer of employee inventions in my/our country of employment, NOVARTIS PHARMA AG is the true and lawful owner of all right, title and interest in all inventions, discoveries, patents/utility models, applications, and rights described in paragraphs (1) through (8) below.

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"SALTS OF AZA-BICYCLIC DI-ARYL ETHERS AND METHODS TO MAKE THEM OR THEIR PRECURSORS" [Patent Case 54620]

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(4) all rights to claim priority from any of the applications referred to in paragraphs (1), (2), and (3) or from any application from which any of the applications referred to in paragraphs (1), (2) and (3) claim priority in all countries and regions under the Paris Convention for the Protection of Industrial Property, the WTO GATT TRIPS Agreement, the Inter-American Convention relating to Inventions, Patents, Designs, and Industrial Models and all other international agreements to which the United States now is or hereafter becomes a signatory and, if the United States patent application is a provisional patent application, under 35 USC 119(e);

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(6) all patents, utility models, or other grants that issue from any of the applications referred to herein and all rights and remedies associated therewith including the right to sue for

and recover past damages and to recover under 35 U.S.C. § 154 (d) or any other law permitting remedies for infringement prior to issuance of the patent;

(7) all registrations and confirmations of, and importation certificates based upon, one or more of said patents, utility models, or other grants, and applications for such registrations, confirmations and importation certificates and;

(8) all reissues, renewals and extensions of said patents, utility models, registrations, confirmations and importation certificates, reexamination certificates issued for said patents and supplementary protection certificates based upon said patents and applications for such reissues, renewals, extensions, reexamination certificates and supplementary protection certificates, the same to be held and enjoyed by said ASSIGNEE to the full ends of the terms for which said patents, utility models, registrations, confirmations, importation certificates, reexamination certificates, supplementary protection certificates, reissues, renewals and extensions may be granted, as fully and entirely as the same would have been held and enjoyed by me/us if this sale, assignment and transfer had not been made.

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This Assignment is effective as from the earliest priority date as stated above.

Executed this 19 day of June, 2012.

Wolfgang Marterer L.S.
Wolfgang Marterer

Executed this 26 day of June, 2012.

Bertrand Sutter L.S.
Bertrand Sutter

Executed this _____ day of _____, 20 .

Jean-Claude Bianchi L.S.

Executed this 26 day of June, 20 .

Massimo Pignone L.S.
Massimo Pignone

Executed this 26 day of June, 20 .

Doris Stingelin L.S.
Doris Stingelin

Executed this _____ day of _____, 20 .

Eckart Buerger L.S.

Executed this 13 day of July, 2012.

NOVARTIS PHARMA AG

BY Sabine Zeller L.S.
Sabine Zeller
Authorized signatory

NOVARTIS PHARMA AG

BY Reto Halbelsen L.S.
Reto Halbelsen
Authorized signatory

ASSIGNMENT

This Assignment Agreement is entered into by and between

Mahavir PRASHAD	citizen of United States of America	Novartis Pharmaceuticals Corporation One Health Plaza East Hanover, NJ 07936-1080 USA
Edwin Bernard VILLHAUER	citizen of United States of America	Novartis Pharmaceuticals Corporation One Health Plaza East hanover, NJ 07936-1080 USA
Liladhar Murlidhar WAYKOLE	citizen of United States of America	Novartis Pharmaceuticals Corporation One Health Plaza East Hanover, NJ 07936-1080 US
James Anthony VIVelo	citizen of United States of America	27 Vanderveer Drive Basking Ridge, NJ 07920 US
Raeann WU	citizen of United States of America	2423 Rachel Terrace Pine Brook, NJ 07058 US
Denis HAR	citizen of United States of America	Novartis Pharmaceuticals Corporation One Health Plaza East Hanover, NJ 07936-1080 USA
Piotr H. KARPINSKI	citizen of United States of America	Novartis Pharmaceuticals Corporation One Health Plaza East Hanover, NJ 07936-1080 US

(hereinafter "Inventor(s)"), and Novartis Pharmaceuticals Corporation, One Health Plaza, East Hanover, NJ 07936-1080, USA, a company organized under the laws of Delaware.

For good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, I/We the Inventor(s) do hereby confirm and agree that, by operation of law and/or contract, and/or by the fulfillment of any and all legal requirements regarding the transfer of employee inventions in my/our country of employment, Novartis Pharmaceuticals Corporation is the true and lawful owner of all right, title and interest in all inventions, discoveries, patents/utility models, applications, and rights described in paragraphs (1) through (8) below.

If, however, under the laws of any country, I/We the Inventor(s) nevertheless have any ownership right, title or interest in any of the items described herein (which I/We do not believe to be the case and make no claim in or to), for good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, I/We the Inventor(s) do hereby sell, assign and transfer to Novartis Pharmaceuticals Corporation and its successors, assigns and legal representatives (hereinafter referred to collectively as the "ASSIGNEE"), all of our right, title and interest for all countries of the world in and to

(1) all of our inventions and discoveries described in the provisional or non-provisional patent, utility model, or other application(s) entitled

"SALTS OF AZA-BICYCLIC DI-ARYL ETHERS AND METHODS TO MAKE THEM OR THEIR PRECURSORS" [Patent Case 54620]

and filed in the _____ Office on _____, 20____ and accorded Application Number _____ and/or filed as a PCT International Application on _____, 20____ and accorded International Patent Application Number PCT/_____; and/or filed in the United States Patent and Trademark Office on 15 July, 2011 and accorded Application Number 61/508,147;

(2) the application(s) identified in paragraph (1), and all applications claiming priority from such application(s), directly or indirectly, including all national stages of any international patent application(s);

(3) the right to file patent, utility model, or other applications on any invention or discovery disclosed in any of the applications identified in paragraphs (1) and (2), including the right to file such applications on said inventions and discoveries in the names of ASSIGNEE or their designees or in our/my name, at ASSIGNEE's election and in accordance with applicable law in all countries and regions; and the right to file all patent, utility model, or other applications in all countries and regions claiming the priority of any of the provisional or non-provisional application(s) identified in paragraphs (1) or (2);

(4) all rights to claim priority from any of the applications referred to in paragraphs (1), (2), and (3) or from any application from which any of the applications referred to in paragraphs (1), (2) and (3) claim priority in all countries and regions under the Paris Convention for the Protection of Industrial Property, the WTO GATT TRIPS Agreement, the Inter-American

Convention relating to Inventions, Patents, Designs, and Industrial Models and all other international agreements to which the United States now is or hereafter becomes a signatory and, if the United States patent application is a provisional patent application, under 35 USC 119(e);

(5) all continuations, continuations-in-part, and divisionals of any United States patent application(s) or international patent application(s) designating the United States, any national stages of any international application(s), and any other patent application(s) described in paragraphs (1) through (4) hereof, including further continuations, continuations-in-part, and divisionals such as, but not limited to, continuations of continuations and continuations of divisionals;

(6) all patents, utility models, or other grants that issue from any of the applications referred to herein and all rights and remedies associated therewith including the right to sue for and recover past damages and to recover under 35 U.S.C. § 154 (d) or any other law permitting remedies for infringement prior to issuance of the patent;

(7) all registrations and confirmations of, and importation certificates based upon, one or more of said patents, utility models, or other grants, and applications for such registrations, confirmations and importation certificates and;

(8) all reissues, renewals and extensions of said patents, utility models, registrations, confirmations and importation certificates, reexamination certificates issued for said patents and supplementary protection certificates based upon said patents and applications for such reissues, renewals, extensions, reexamination certificates and supplementary protection certificates, the same to be held and enjoyed by said ASSIGNEE to the full ends of the terms for which said patents, utility models, registrations, confirmations, importation certificates, reexamination certificates, supplementary protection certificates, reissues, renewals and extensions may be granted, as fully and entirely as the same would have been held and enjoyed by me/us if this sale, assignment and transfer had not been made.

I/We the Inventor(s) hereby authorize ASSIGNEE and their representatives to insert in paragraph (1) of this Assignment the filing date(s) and Application Number(s) of said patent, utility model, or other application(s) when notified thereof.

I/We the Inventor(s) hereby covenant and agree that I/We will, at any time, (i) upon the request, but at the expense, of ASSIGNEE, execute and deliver all documents that may be necessary or desirable to perfect the title to the foregoing inventions and discoveries, applications, patents, utility models, registrations, confirmations, importation certificates, reissues, renewals, extensions, reexamination certificates, supplementary protection certificates, and applications within the scope of (7) and (8), in ASSIGNEE, including the execution and procurement of all further documents evidencing this sale, assignment and transfer as may be necessary or desirable for recording the same in the patent office or other intellectual property office, agency or the like of any country or region, (ii) upon the request, but at the expense, of ASSIGNEE execute all additional applications within the scope of paragraphs (1) through (6)

and all applications within the scope of (7) or (8), and (iii) make all rightful oaths and declarations and do all lawful acts requisite for procuring the same or for aiding therein, without further compensation, but at the expense of ASSIGNEE .

Should any provision of this Assignment be deemed invalid or unenforceable by reason of any law, statute, regulation or judgment, existing now or in the future in any jurisdiction, such provision shall be modified in such jurisdiction so as to nearly approximate the intent of the Parties. If this cannot be done, such invalid or unenforceable provision shall be divisible and be deleted in any such jurisdiction, and all other provisions shall remain in full force and effect. The modification or deletion of any provision in one jurisdiction shall have no effect on this Assignment in any other jurisdiction.

This Assignment shall be governed by the laws of the state of Delaware.

This Assignment is effective as from the earliest priority date as stated above.

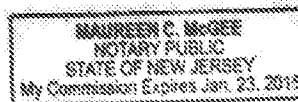
Executed this 14th day of August, 2012.

Mahavir Prashad L.S.
Mahavir Prashad

On this 14 day of August, 2012 before, me the undersigned notary public, personally appeared Mahavir Prashad proved to me through satisfactory evidence of identification, which was _____ to be the person whose name is signed on the preceding or attached document and acknowledged to me that he or she signed it voluntarily for its stated purpose.

Maureen C. McGee, Notary Public

My commission expires _____



Executed this 14th day of August, 2012

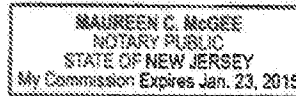
Edwin Bernard Villhauer L.S.
Edwin Bernard Villhauer

On this 14 day of August, 2012 before, me the undersigned notary public, personally appeared Edwin Bernard Villhauer proved to me through satisfactory evidence of identification, which was _____ to be the person whose name is signed on

the preceding or attached document and acknowledged to me that he or she signed it voluntarily for its stated purpose.

Maureen C. McGee, Notary Public

My commission expires _____



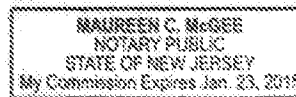
Executed this 20 day of Aug, 2012

[Signature] L.S.
Liladhar Murlidhar Waykole

On this 20 day of August 2012 before, me the undersigned notary public, personally appeared Liladhar Murlidhar Waykole proved to me through satisfactory evidence of identification, which was _____ to be the person whose name is signed on the preceding or attached document and acknowledged to me that he or she signed it voluntarily for its stated purpose.

Maureen C. McGee, Notary Public

My commission expires _____



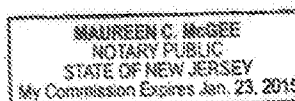
Executed this 21 day of August, 2012

[Signature] L.S.
James Anthony Vivelo

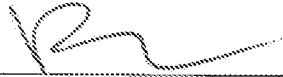
On this 21 day of August 2012 before, me the undersigned notary public, personally appeared James Anthony Vivelo proved to me through satisfactory evidence of identification, which was _____ to be the person whose name is signed on the preceding or attached document and acknowledged to me that he or she signed it voluntarily for its stated purpose.

Maureen C. McGee, Notary Public

My commission expires _____



Executed this 14 day of Aug, 2012.



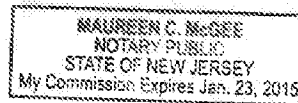
L.S.

Racann Wu

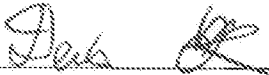
On this 14th day of August, 2012 before, me the undersigned notary public, personally appeared Racann Wu proved to me through satisfactory evidence of identification, which was _____ to be the person whose name is signed on the preceding or attached document and acknowledged to me that he or she signed it voluntarily for its stated purpose.

Maureen C. McGee, Notary Public

My commission expires _____



Executed this 20 day of Aug, 2012.



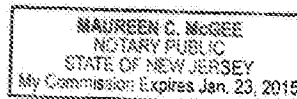
L.S.

Denis Har

On this 20 day of August, 2012 before, me the undersigned notary public, personally appeared Denis Har proved to me through satisfactory evidence of identification, which was _____ to be the person whose name is signed on the preceding or attached document and acknowledged to me that he or she signed it voluntarily for its stated purpose.

Maureen C. McGee, Notary Public

My commission expires _____



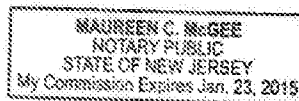
Executed this 14 day of Aug, 2012

Piotr H. Karpinski L.S.
Piotr H. Karpinski

On this 14 day of August 2012 before, me the undersigned notary public, personally appeared Piotr H. Karpinski proved to me through satisfactory evidence of identification, which was _____ to be the person whose name is signed on the preceding or attached document and acknowledged to me that he or she signed it voluntarily for its stated purpose.

Maureen C. McGee, Notary Public

My commission expires _____



Executed this 22 day of Aug, 2012

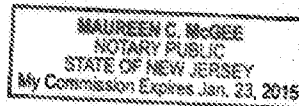
Novartis Pharmaceuticals Corporation

BY Cindy Klepacky L.S.

On this 22 day of August 2012 before, me the undersigned notary public, personally appeared Cindy Klepacky proved to me through satisfactory evidence of identification, which was _____ to be the person whose name is signed on the preceding or attached document and acknowledged to me that he or she signed it voluntarily for its stated purpose.

Maureen C. McGee, Notary Public

My commission expires _____



ASSIGNMENT

This Assignment Agreement is entered into by and between **NOVARTIS PHARMA AG**, Lichtstrasse 35, 4056 Basel, Switzerland, a company organized under the laws of Switzerland, and **NOVARTIS AG**, a company incorporated in Switzerland whose address is Lichtstrasse 35, 4056 Basel, Switzerland.

For good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, NOVARTIS PHARMA AG does hereby sell, assign and transfer to NOVARTIS AG and its successors, assigns and legal representatives (hereinafter referred to collectively as the "ASSIGNEE"), all of its right, title and interest for all countries of the world in and to

(1) all inventions and discoveries described in the provisional or non-provisional patent application(s) entitled

"SALTS OF AZA-BICYCLIC DI-ARYL ETHERS AND METHODS TO MAKE THEM OR THEIR PRECURSORS" [Patent Case 54620]

and filed in the _____ Office on _____, 20____ and accorded Application Number _____ and/or filed as a PCT International Application on _____, 20____ and accorded International Patent Application Number PCT/_____; and/or filed in the United States Patent and Trademark Office on 15 July, 2011 and accorded Application Number 61/508,147;

(2) the application(s) identified in paragraph (1), and all applications claiming priority from such application(s), directly or indirectly, including all national stages of any international patent application(s);

(3) the right to file patent, utility model, or other applications on any invention or discovery disclosed in any of the applications identified in paragraphs (1) and (2), including the right to file such applications on said inventions and discoveries in the names of ASSIGNEE or their designees, or on behalf or in the name(s) of the inventor(s) of said inventions and discoveries, at ASSIGNEE's election and in accordance with applicable law in all countries and regions; and the right to file all patent, utility model, or other applications in all countries and regions claiming the priority of any of the provisional or non-provisional application(s) identified in paragraphs (1) or (2);

(4) all rights to claim priority from any of the applications referred to in paragraphs (1), (2), and (3) or from any application from which any of the applications referred to in paragraphs (1), (2) and (3) claim priority in all countries and regions under the Paris Convention for the Protection of Industrial Property, the WTO GATT TRIPS Agreement, the Inter-American Convention relating to Inventions, Patents, Designs, and Industrial Models and all other international agreements to which the United States now is or hereafter becomes a signatory and, if the United States patent application is a provisional patent application, under 35 USC 119(e);

(5) all continuations, continuations-in-part, and divisionals of any United States patent application(s) or international patent application(s) designating the United States, any national stages of any international application(s), and any other patent application(s) described in paragraphs (1) through (4) hereof, including further continuations, continuations-in-part, and divisionals such as, but not limited to, continuations of continuations and continuations of divisionals;

(6) all patents, utility models, or other grants that issue from any of the applications referred to herein and all rights and remedies associated therewith including the right to sue for and recover past damages and to recover under 35 U.S.C. § 154 (d) or any other law permitting remedies for infringement prior to issuance of the patent;

(7) all registrations and confirmations of, and importation certificates based upon, one or more of said patents, utility models, or other grants, and applications for such registrations, confirmations and importation certificates and;

(8) all reissues, renewals and extensions of said patents, utility models, registrations, confirmations and importation certificates, reexamination certificates issued for said patents and supplementary protection certificates based upon said patents and applications for such reissues, renewals, extensions, reexamination certificates and supplementary protection certificates, the same to be held and enjoyed by said ASSIGNEE to the full ends of the terms for which said patents, utility models, registrations, confirmations, importation certificates, reexamination certificates, supplementary protection certificates, reissues, renewals and extensions may be granted, as fully and entirely as the same would have been held and enjoyed by NOVARTIS PHARMA AG if this sale, assignment and transfer had not been made.

NOVARTIS PHARMA AG hereby authorizes ASSIGNEE and their representatives to insert in paragraph (1) of this Assignment the filing date(s) and Application Number(s) of said patent, utility model, or other application(s) when notified thereof.

NOVARTIS PHARMA AG hereby covenants and agrees that it will, at any time, (i) upon the request, but at the expense, of ASSIGNEE, execute and deliver all documents that may be necessary or desirable to perfect the title to the foregoing inventions and discoveries, applications, patents, utility models, registrations, confirmations, importation certificates, reissues, renewals, extensions, reexamination certificates, supplementary protection certificates, and applications within the scope of (7) and (8), in ASSIGNEE, including the execution and procurement of all further documents evidencing this sale, assignment and transfer as may be necessary or desirable for recording the same in the patent office or other intellectual property office, agency or the like of any country or region, (ii) upon the request, but at the expense, of ASSIGNEE execute all additional applications within the scope of paragraphs (1) through (6) and all applications within the scope of (7) or (8), and (iii) make all rightful oaths and declarations and do all lawful acts requisite for procuring the same or for aiding therein, without further compensation, but at the expense of ASSIGNEE .

Should any provision of this Assignment be deemed invalid or unenforceable by reason of any law, statute, regulation or judgment, existing now or in the future in any jurisdiction, such provision shall be modified in such jurisdiction so as to nearly approximate the intent of the Parties. If this cannot be done, such invalid or unenforceable provision shall be divisible and be deleted in any such jurisdiction, and all other provisions shall remain in full force and effect. The modification or deletion of any provision in one jurisdiction shall have no effect on this Assignment in any other jurisdiction.

This Assignment shall be governed by the laws of Switzerland.

This Assignment is effective as from the earliest priority date as stated above.

Executed this 12th day of July, 2012

NOVARTIS PHARMA AG

BY [Signature] L.S.

Sabine Zeller
Authorized signatory

NOVARTIS PHARMA AG

BY [Signature] L.S.

Reto Halbeisen
Authorized signatory

Executed this 12th day of July, 2012

NOVARTIS AG

BY [Signature] L.S.

Ella Rutschmann
Authorized signatory

NOVARTIS AG

BY [Signature] L.S.

Elena S. Brugnera
Authorized signatory

ASSIGNMENT

This Assignment Agreement is entered into by and between **Novartis Pharmaceuticals Corporation**, One Health Plaza, East Hanover, NJ 07936-1080, USA, a company organized under the laws of Delaware, and **NOVARTIS AG**, a company incorporated in Switzerland whose address is Lichtstrasse 35, 4056 Basel, Switzerland.

For good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, Novartis Pharmaceuticals Corporation does hereby sell, assign and transfer to NOVARTIS AG and its successors, assigns and legal representatives (hereinafter referred to collectively as the "ASSIGNEE"), all of its right, title and interest for all countries of the world in and to

(1) all inventions and discoveries described in the provisional or non-provisional patent application(s) entitled

"SALTS OF AZA-BICYCLIC DI-ARYL ETHERS AND METHODS TO MAKE THEM OR THEIR PRECURSORS" [Patent Case 54620]

and filed in the _____ Office on _____, 20____ and accorded Application Number _____ and/or filed as a PCT International Application on _____, 20____ and accorded International Patent Application Number PCT/_____; and/or filed in the United States Patent and Trademark Office on 15 July, 2011 and accorded Application Number 61/508,147;

(2) the application(s) identified in paragraph (1), and all applications claiming priority from such application(s), directly or indirectly, including all national stages of any international patent application(s);

(3) the right to file patent, utility model, or other applications on any invention or discovery disclosed in any of the applications identified in paragraphs (1) and (2), including the right to file such applications on said inventions and discoveries in the names of ASSIGNEE or their designees, or on behalf or in the name(s) of the inventor(s) of said inventions and discoveries, at ASSIGNEE's election and in accordance with applicable law in all countries and regions; and the right to file all patent, utility model, or other applications in all countries and regions claiming the priority of any of the provisional or non-provisional application(s) identified in paragraphs (1) or (2);

(4) all rights to claim priority from any of the applications referred to in paragraphs (1), (2), and (3) or from any application from which any of the applications referred to in paragraphs (1), (2) and (3) claim priority in all countries and regions under the Paris Convention for the Protection of Industrial Property, the WTO GATT TRIPS Agreement, the Inter-American Convention relating to Inventions, Patents, Designs, and Industrial Models and all other international agreements to which the United States now is or hereafter becomes a signatory and, if the United States patent application is a provisional patent application, under 35 USC 119(e);

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(6) all patents, utility models, or other grants that issue from any of the applications referred to herein and all rights and remedies associated therewith including the right to sue for and recover past damages and to recover under 35 U.S.C. § 154 (d) or any other law permitting remedies for infringement prior to issuance of the patent;

(7) all registrations and confirmations of, and importation certificates based upon, one or more of said patents, utility models, or other grants, and applications for such registrations, confirmations and importation certificates and;

(8) all reissues, renewals and extensions of said patents, utility models, registrations, confirmations and importation certificates, reexamination certificates issued for said patents and supplementary protection certificates based upon said patents and applications for such reissues, renewals, extensions, reexamination certificates and supplementary protection certificates, the same to be held and enjoyed by said ASSIGNEE to the full ends of the terms for which said patents, utility models, registrations, confirmations, importation certificates, reexamination certificates, supplementary protection certificates, reissues, renewals and extensions may be granted, as fully and entirely as the same would have been held and enjoyed by Novartis Pharmaceuticals Corporation if this sale, assignment and transfer had not been made.

Novartis Pharmaceuticals Corporation hereby authorizes ASSIGNEE and their representatives to insert in paragraph (1) of this Assignment the filing date(s) and Application Number(s) of said patent, utility model, or other application(s) when notified thereof.

Novartis Pharmaceuticals Corporation hereby covenants and agrees that it will, at any time, (i) upon the request, but at the expense, of ASSIGNEE, execute and deliver all documents that may be necessary or desirable to perfect the title to the foregoing inventions and discoveries, applications, patents, utility models, registrations, confirmations, importation certificates, reissues, renewals, extensions, reexamination certificates, supplementary protection certificates, and applications within the scope of (7) and (8), in ASSIGNEE, including the execution and procurement of all further documents evidencing this sale, assignment and transfer as may be necessary or desirable for recording the same in the patent office or other intellectual property office, agency or the like of any country or region, (ii) upon the request, but at the expense, of ASSIGNEE execute all additional applications within the scope of paragraphs (1) through (6) and all applications within the scope of (7) or (8), and (iii) make all rightful oaths and declarations and do all lawful acts requisite for procuring the same or for aiding therein, without further compensation, but at the expense of ASSIGNEE .

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This Assignment shall be governed by the laws of Switzerland.

This Assignment is effective as from the earliest priority date as stated above.

Executed this 22 day of Aug, 20 12.

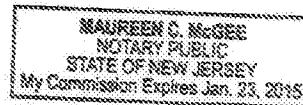
Novartis Pharmaceuticals Corporation

BY Cindy Klemm L.S.

On this 22 day of August 2012, before me the undersigned notary public, personally appeared Cindy Klemm proved to me through satisfactory evidence of identification, which was his/her license to be the person whose name is signed on the preceding or attached document and acknowledged to me that he or she signed it voluntarily for its stated purpose.

Maureen C. McGee, Notary Public

My commission expires _____



Executed this 27th day of August, 2012

NOVARTIS AG

BY Sabine Zeller L.S.
Sabine Zeller
Authorized signatory

NOVARTIS AG

BY Reto Halbeisen L.S.
Reto Halbeisen
Authorized signatory