

PATENT ASSIGNMENT

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SUBMISSION TYPE:	NEW ASSIGNMENT																						
NATURE OF CONVEYANCE:	ASSIGNMENT																						
CONVEYING PARTY DATA																							
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Gerald David ARTMAN III</td> <td>11/04/2009</td> </tr> <tr> <td>Jason Matthew ELLIOTT</td> <td>11/05/2009</td> </tr> <tr> <td>Nan JI</td> <td>11/04/2009</td> </tr> <tr> <td>Donglei LIU</td> <td>11/06/2009</td> </tr> <tr> <td>Fupeng MA</td> <td>11/04/2009</td> </tr> <tr> <td>Nello MAINOLFI</td> <td>11/05/2009</td> </tr> <tr> <td>Erik MEREDITH</td> <td>11/06/2009</td> </tr> <tr> <td>Karl MIRANDA</td> <td>11/24/2009</td> </tr> <tr> <td>James J. POWERS</td> <td>11/06/2009</td> </tr> <tr> <td>Chang RAO</td> <td>11/04/2009</td> </tr> </tbody> </table>		Name	Execution Date	Gerald David ARTMAN III	11/04/2009	Jason Matthew ELLIOTT	11/05/2009	Nan JI	11/04/2009	Donglei LIU	11/06/2009	Fupeng MA	11/04/2009	Nello MAINOLFI	11/05/2009	Erik MEREDITH	11/06/2009	Karl MIRANDA	11/24/2009	James J. POWERS	11/06/2009	Chang RAO	11/04/2009
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<table border="1"> <tr> <td>Name:</td> <td>Novartis AG</td> </tr> <tr> <td>Street Address:</td> <td>Lichtstrasse 35</td> </tr> <tr> <td>City:</td> <td>Basel</td> </tr> <tr> <td>State/Country:</td> <td>SWITZERLAND</td> </tr> <tr> <td>Postal Code:</td> <td>4056</td> </tr> </table>		Name:	Novartis AG	Street Address:	Lichtstrasse 35	City:	Basel	State/Country:	SWITZERLAND	Postal Code:	4056												
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CORRESPONDENCE DATA																							
<p>Fax Number:</p> <p><i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i></p> <p>Phone: 6178715131</p> <p>Email: susan.dillon@novartis.com</p> <p>Correspondent Name: Novartis - NIBR</p> <p>Address Line 1: 220 Massachusetts Avenue</p>																							

CH \$40.00 13613034

Address Line 4: Cambridge, MASSACHUSETTS 02139	
ATTORNEY DOCKET NUMBER:	PAT053170-US-CNT03
NAME OF SUBMITTER:	Susan M. Dillon
Signature:	/ Susan M. Dillon /
Date:	06/10/2013
<p>Total Attachments: 11</p> <p>source=PAT053170_executed_assignment#page1.tif</p> <p>source=PAT053170_executed_assignment#page2.tif</p> <p>source=PAT053170_executed_assignment#page3.tif</p> <p>source=PAT053170_executed_assignment#page4.tif</p> <p>source=PAT053170_executed_assignment#page5.tif</p> <p>source=PAT053170_executed_assignment#page6.tif</p> <p>source=PAT053170_executed_assignment#page7.tif</p> <p>source=PAT053170_executed_assignment#page8.tif</p> <p>source=PAT053170_executed_assignment#page9.tif</p> <p>source=PAT053170_executed_assignment#page10.tif</p> <p>source=PAT053170_executed_assignment#page11.tif</p>	

(joint)

Patent Case PAT053170

ASSIGNMENT

For good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, we

Gerald David ARTMAN III	citizen of United States of America	Novartis Institutes for BioMedical Research, Inc. 400 Technology Square Cambridge, MA 02139 USA
Jason Matthew ELLIOTT	citizen of United Kingdom	Novartis Institutes for BioMedical Research, Inc. 400 Technology Square Cambridge, MA 02139 USA
Nan Ji	citizen of China	Novartis Institutes for BioMedical Research, Inc. 400 Technology Square Cambridge, MA 02139 USA
Donglei LIU	citizen of China	Novartis Institutes for BioMedical Research, Inc. 400 Technology Square Cambridge, MA 02139 USA
Fupeng MA	citizen of Canada	Novartis Institutes for BioMedical Research, Inc. 400 Technology Square Cambridge, MA 02139 USA
Nello MAINOLFI	citizen of Italy	Novartis Institutes for BioMedical Research, Inc. 400 Technology Square Cambridge, MA 02139 USA
Erik MEREDITH	citizen of United States of America	Novartis Institutes for BioMedical Research, Inc. 400 Technology Square Cambridge, MA 02139 US
Karl MIRANDA	citizen of India	340 Mill Road, Suite 1712 Etobicoke, Ontario Canada M9C 1Y8 CA

James J. POWERS	citizen of United States of America	Novartis Institutes for BioMedical Research, Inc. 400 Technology Square Cambridge, MA 02139 USA
Chang RAO	citizen of United States of America	Novartis Institutes for BioMedical Research, Inc. 400 Technology Square Cambridge, MA 02139 US

do hereby sell, assign and transfer to Novartis AG, a company organized under the laws of the Swiss Confederation, of Lichtstrasse 35, 4056 Basel, Switzerland, (hereinafter referred to as the "ASSIGNEE") and its successors, assigns and legal representatives, all of my right, title and interest for all countries of the world in and to (1) all of my inventions and discoveries described in the patent application(s) titled

Pyridyloxyindoles Inhibitors of VEGF-R2 and Use Thereof for Treatment of Disease

and filed in the United States Patent and Trademark Office on _____, 20__ and accorded Application Number _____* and/or filed in the RO/ _____ on _____, 20__ and accorded International Patent Application Number PCT/ _____*, (2) the patent application(s) identified in (1), (3) all national stages of any international patent application identified in (1), (4) all other patent applications in all countries and regions claiming the priority of the provisional or non-provisional patent application filed in the United States Patent and Trademark Office on **09 December 2008** and **12 August 2009** and accorded Applications Number **61/201,243** and Number **61/233,341**, (5) for all patent applications, all rights of priority based upon the United States patent application identified in (4) in all countries and regions under the Paris Convention for the Protection of Industrial Property, 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 identified in (4) is a provisional patent application, under 35 USC 119(e) (including the right to file patent applications on said inventions and discoveries in the names of ASSIGNEE or their designees or in our names, at their election and in accordance with applicable law in all countries and regions), (6) all continuations and divisions of any United States patent application or international patent application designating the United States identified in (1), any national stages of any international application identified in (1) and any patent applications within the scope of (4) (including further continuations and divisions such as, but not limited to, continuations of continuations and continuations of divisions), ((2)-(4) and (6) hereinafter referred to collectively as "patent applications"), (7) all patents that are granted on any of said patent applications, (8) all registrations and confirmations of, and importation certificates based upon, one or more of said patents and applications for such registrations, confirmations and importation certificates and (9) all reissues, renewals and extensions of said patents, 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 and their successors, assigns and legal representatives to the full ends of the terms for which said patents, 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 us if this sale, assignment and transfer had not been made.

*We hereby authorize ASSIGNEE and their representatives to insert in this Assignment the filing date(s) and Application Number(s) of said patent application(s) when notified thereof.

And we hereby covenant and agree that we will, at any time, (i) upon the request, but at the expense, of ASSIGNEE or their successors, assigns or legal representatives execute and deliver all documents that may be necessary or desirable to perfect the title to the foregoing inventions and discoveries, patent applications, patents, registrations, confirmations, importation certificates, reissues, renewals, extensions, reexamination certificates, supplementary protection certificates and applications within the scope of (8) and (9) in ASSIGNEE or their successors, assigns or legal representatives, 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 or their successors, assigns or legal representatives execute all additional patent applications within the scope of (3), (4) and (6) and all applications within the scope of (8) or (9) 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 or their successors, assigns or legal representatives.

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

Executed this 04 day of November, 2009


Gerald David ARTMAN III L.S.

ACKNOWLEDGEMENT

State of Massachusetts)
) S.S.
County of Middlesex)

On this 4th day of November, 2009, personally appeared before me
Gerald Artman III to me known and known by me to be the same person described
in and who executed the foregoing Assignment and acknowledged that (s)he executed the same of his (her)
own free will for the purpose set forth.

(Seal)


Notary Public

Jessica N. Yoo
Notary Public
Commonwealth of Massachusetts
My Commission Expires
May 19, 2011

Executed this 5th day of November, 2009

J. M. Elliott L.S.
Jason Matthew ELLIOTT

ACKNOWLEDGEMENT

State of Massachusetts)
) S.S.:
County of Middlesex)

On this 5th day of November, 2009 personally appeared before me
Jason Elliott to me known and known by me to be the same person described
in and who executed the foregoing Assignment and acknowledged that (s)he executed the same of his (her)
own free will for the purpose set forth.

(Seal)

Jessica N. Yoo
Notary Public
Jessica N. Yoo
Notary Public
Commonwealth of Massachusetts
My Commission Expires
May 19, 2011

Executed this 4th day of November, 2009

Nan Ji L.S.
Nan Ji

ACKNOWLEDGEMENT

State of Massachusetts)
) S.S.:
County of Middlesex)

On this 4th day of November, 2009 personally appeared before me
Nan Ji to me known and known by me to be the same person described
in and who executed the foregoing Assignment and acknowledged that (s)he executed the same of his (her)
own free will for the purpose set forth.

(Seal)

Jessica N. Yoo
Notary Public
Jessica N. Yoo
Notary Public
Commonwealth of Massachusetts
My Commission Expires
May 19, 2011

Executed this 6 day of November, 2009

[Signature] L.S.
Donglei LIU

ACKNOWLEDGEMENT

State of Massachusetts)
) s.s.:
County of Middlesex)

On this 6th day of November, 2009, personally appeared before me
Donglei Liu to me known and known by me to be the same person described
in and who executed the foregoing Assignment and acknowledged that (s)he executed the same of his (her)
own free will for the purpose set forth.

(Seal)

[Signature]
Notary Public
Jessica N. Yan
Notary Public
Commonwealth of Massachusetts
My Commission Expires
May 19, 2011

Executed this 4th day of November, 2009

Fupeng Ma L.S.
Fupeng MA

ACKNOWLEDGEMENT

State of Massachusetts)
) s.s.:
County of Middlesex)

On this 4th day of November, 2009, personally appeared before me
Fupeng Ma to me known and known by me to be the same person described
in and who executed the foregoing Assignment and acknowledged that (s)he executed the same of his (her)
own free will for the purpose set forth.

(Seal)

[Signature]
Notary Public
Jessica N. Yan
Notary Public
Commonwealth of Massachusetts
My Commission Expires
May 19, 2011

PATENT

Executed this 5 day of November, 2009

Nello Mainolfi L.S.
Nello MAINOLFI

ACKNOWLEDGEMENT

State of Massachusetts)
) s.s.:
County of Middlesex)

On this 5th day of November, 2009 personally appeared before me
Nello Mainolfi to me known and known by me to be the same person described
in and who executed the foregoing Assignment and acknowledged that (s)he executed the same of his (her)
own free will for the purpose set forth.

(Seal)

Jessica N. Yoo
Notary Public
Jessica N. Yoo
Notary Public
Commonwealth of Massachusetts
My Commission Expires
May 19, 2011

Executed this 6th day of November, 2009

Erik Meredith L.S.
Erik MEREDITH

ACKNOWLEDGEMENT

State of Massachusetts)
) s.s.:
County of Middlesex)

On this 6th day of November, 2009 personally appeared before me
Erik Meredith to me known and known by me to be the same person described
in and who executed the foregoing Assignment and acknowledged that (s)he executed the same of his (her)
own free will for the purpose set forth.

(Seal)

Jessica N. Yoo
Notary Public
Jessica N. Yoo
Notary Public
Commonwealth of Massachusetts
My Commission Expires
May 19, 2011

Executed this 24th day of November, 2009

K. Miranda L.S.
Karl MIRANDA

ACKNOWLEDGEMENT

COUNTRY Canada R
State of CANADA)
PROVINCE Ontario M) S.S.:
County of ONTARIO)

On this 24th day of November, 2009 personally appeared before me
KARL MIRANDA to me known and known by me to be the same person described
in and who executed the foregoing Assignment and acknowledged that (s)he executed the same of his (her)
own free will for the purpose set forth.

(Seal)

[Signature]
Notary Public

Executed this 6 day of November, 2009

[Signature] L.S.
James J. POWERS

ACKNOWLEDGEMENT

State of Massachusetts)
County of Middlesex) S.S.:

On this 6th day of November, 2009, personally appeared before me
James Powers to me known and known by me to be the same person described
in and who executed the foregoing Assignment and acknowledged that (s)he executed the same of his (her)
own free will for the purpose set forth.

(Seal)

[Signature]
Notary Public

Jessica N. Yoo
Notary Public
Commonwealth of Massachusetts
My Commission Expires
May 19, 2011

Executed this 04 day of 11, 2009

Chang Rao L.S.
Chang RAO

ACKNOWLEDGEMENT

State of Massachusetts)
) s.s.:
County of Middlesex)

On this 4th day of November, 2009 personally appeared before me
Chang Rao to me known and known by me to be the same person described
in and who executed the foregoing Assignment and acknowledged that (s)he executed the same of his (her)
own free will for the purpose set forth.

(Seal)

Notary Public

Public **Jessie M. Yano**
Notary Public
Commonwealth of Massachusetts
My Commission Expires
May 19, 2011

ACCEPTANCE OF ASSIGNMENT

With reference to the Assignment to NOVARTIS AG of an invention entitled "Pyridyloxyindoles Inhibitors of VEGF-R2 and Use Thereof for Treatment of Disease" signed by Gerald David ARTMANN III, Jason Matthew ELLIOTT, Nan Ji, Donglei LIU, Fupeng MA, Nello MAINOLFI, Erik MEREDITH, Karl MIRANDA, James J. POWERS and Chang RAO; this will certify that NOVARTIS AG accepts such Assignment.


NOVARTIS AG

By :

Name :

Function :

Date :


SABINE ZELLER

ADM. PROFESSIONAL

07 DECEMBER 2009


RETO HALBERSTEIN

ADM. PROFESSIONAL

ADM. PROFESSIONAL

Attestation

I, the undersigned Civil Law Notary in Basel, Switzerland, Dr. Matthias Staehelin, certify herewith that the signatures attached heretofore are the genuine signatures of **Ms. Sabine Zeller**, citizen of Ormalingen/BL, Switzerland, residing in Gelterkinden/BL, Switzerland; and of **Mr. Reto Halbeisen**, citizen of Wahlen/BL, Switzerland, residing in Laufen/BL, Switzerland; both acting for **Novartis AG**, in Basel, Switzerland, both as proxy holders, both with joint signature.

The authenticity of the signatures was established by means of comparison.

BASFL, Switzerland, this 9th (ninth) day of December 2009 (two thousand and nine)

M. Staehelin, Notar

Dr. M. Staehelin
Notar

Leg. Prot. Nr. 3185 /2009

FOR CERTIFIED COPY

I, the undersigned Civil Law Notary in Basel, Switzerland, Dr. Matthias Staehelin, hereby certify that the document attached heretofore is a true and authentic photocopy of the original.

BASEL, Switzerland, this 9th (ninth) day of December 2009 (two thousand and nine)

M. Staehelin Notar

Dr. M. Staehelin
Notar

Leg.Prot.Nr. 3452 /2009