

<b>PATENT ASSIGNMENT COVER SHEET</b>
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Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT2799899

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT

**CONVEYING PARTY DATA**

Name	Execution Date
ROBERT AVERSA	03/06/2014
PAUL A. BARSANTI	03/07/2014
MATTHEW BURGER	03/06/2014
MICHAEL PATRICK DILLON	03/06/2014
CHENG HU	03/19/2014
YAN LOU	03/06/2014
GISELE NISHIGUCHI	03/11/2014
YUE PAN	03/06/2014
VALERY POLYAKOV	03/06/2014
SAVITHRI RAMURTHY	03/06/2014
ALICE RICO	03/06/2014
LINA SETTI	03/06/2014
AARON SMITH	03/06/2014
SHARADHA SUBRAMANIAN	03/06/2014
BENJAMIN TAFT	03/06/2014
HUW TANNER	03/06/2014
LIFENG WAN	03/06/2014

**RECEIVING PARTY DATA**

<b>Name:</b>	NOVARTIS VACCINES AND DIAGNOSTICS, INC.
<b>Street Address:</b>	4560 HORTON STREET
<b>City:</b>	EMERYVILLE
<b>State/Country:</b>	CALIFORNIA
<b>Postal Code:</b>	94608

**PROPERTY NUMBERS Total: 1**

Property Type	Number
<b>PCT Number:</b>	US1426107

**CORRESPONDENCE DATA****Fax Number:**

*Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via*  
**PATENT**

**US Mail.**

**Phone:** (510) 923-2707  
**Email:** lisa.nash@novartis.com  
**Correspondent Name:** NOVARTIS INSTITUTES FOR BIOMEDICAL RES  
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**Address Line 2:** NIBR PATENTS  
**Address Line 4:** CAMBRIDGE, MASSACHUSETTS 02139

<b>ATTORNEY DOCKET NUMBER:</b>	PAT055595-WO-PCT
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<b>NAME OF SUBMITTER:</b>	LISA NASH
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<b>SIGNATURE:</b>	/lisa nash/
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<b>DATE SIGNED:</b>	04/03/2014
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**Total Attachments: 11**

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## ASSIGNMENT

This Assignment Agreement is entered into by and between

Robert AVERSA	citizen of United States of America	Novartis Vaccines and Diagnostics, Inc. 4560 Horton Street Emeryville, CA 94608-2916 USA
Paul A. BARSANTI	citizen of United Kingdom	Novartis Vaccines and Diagnostics, Inc. 4560 Horton Street Emeryville, CA 94608-2916 USA
Matthew BURGER	citizen of United States of America	Novartis Vaccines and Diagnostics, Inc. 4560 Horton Street Emeryville, CA 94608-2916 USA
Michael Patrick DILLON	citizen of United States of America	Novartis Vaccines and Diagnostics, Inc. 4560 Horton Street Emeryville, CA 94608-2916 USA
Cheng HU	citizen of China	Novartis Vaccines and Diagnostics, Inc. 4560 Horton Street Emeryville, CA 94608-2916 USA
Yan LOU	citizen of United States of America	Novartis Vaccines and Diagnostics, Inc. 4560 Horton Street Emeryville, CA 94608-2916 USA
Gisele NISHIGUCHI	citizen of United States of America	Novartis Vaccines and Diagnostics, Inc. 4560 Horton Street Emeryville, CA 94608-2916 USA
Yue PAN	citizen of China	Novartis Vaccines and Diagnostics, Inc. 4560 Horton Street Emeryville, CA 94608-2916 USA
Valery POLYAKOV	citizen of United States of America	Novartis Vaccines and Diagnostics, Inc. 4560 Horton Street Emeryville, CA 94608-2916 USA

Savithri RAMURTHY	citizen of India	Novartis Vaccines and Diagnostics, Inc. 4560 Horton Street Emeryville, CA 94608-2916 USA
Alice RICO	citizen of United States of America	Novartis Vaccines and Diagnostics, Inc. 4560 Horton Street Emeryville, CA 94608-2916 USA
Lina SETTI	citizen of United States of America	Novartis Vaccines and Diagnostics, Inc. 4560 Horton Street Emeryville, CA 94608-2916 USA
Aaron SMITH	citizen of United States of America	Novartis Vaccines and Diagnostics, Inc. 4560 Horton Street Emeryville, CA 94608-2916 USA
Sharadha SUBRAMANIAN	citizen of United States of America	Novartis Vaccines and Diagnostics, Inc. 4560 Horton Street Emeryville, CA 94608-2916 USA
Benjamin TAFT	citizen of United States of America	Novartis Vaccines and Diagnostics, Inc. 4560 Horton Street Emeryville, CA 94608-2916 USA
Huw TANNER	citizen of United Kingdom	Novartis Vaccines and Diagnostics, Inc. 4560 Horton Street Emeryville, CA 94608-2916 USA
Lifeng WAN	citizen of China	Novartis Vaccines and Diagnostics, Inc. 4560 Horton Street Emeryville, CA 94608-2916 USA

(hereinafter "Inventor(s)"), and **Novartis Vaccines and Diagnostics, Inc.** 4560 Horton Street, Emeryville, CA 94608-2916, 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 Vaccines and Diagnostics, Inc. 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 Vaccines and Diagnostics, Inc. 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

BIARYL AMIDE COMPOUNDS AS KINASE INHIBITORS  
[Patent Application PAT055595-US-PSP]

and filed in the \_\_\_\_\_ Office on \_\_\_\_\_ and accorded Application Number \_\_\_\_\_ and/or filed as a PCT International Application on \_\_\_\_\_ and accorded International Patent Application Number PCT/\_\_\_\_\_; and/or filed in the United States Patent and Trademark Office on March 14, 2013 and accorded Application Number 61/783,558;

(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 Delaware.

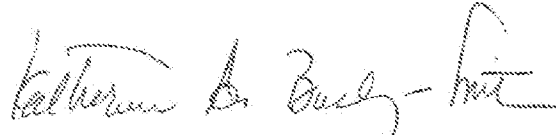
This Assignment is effective as from the earliest priority date as stated above.

Executed this 6<sup>th</sup> day of March, 2014

BY   
Robert AVERSA

Witnessed by:

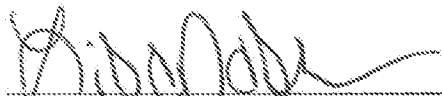
  
Lisa Nash  
5300 Chiron Way  
Emeryville, CA 94608

  
Katherine A. Buckley-Smith  
5300 Chiron Way  
Emeryville, CA 94608

Executed this 7<sup>th</sup> day of MARCH, 2014

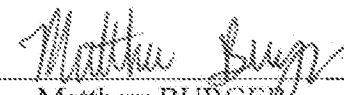
BY   
Paul A. BARSANTI

Witnessed by:


  
Lisa Nash  
5300 Chiron Way  
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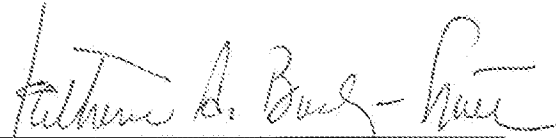
  
Michael Mazza  
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Executed this 6<sup>th</sup> day of March, 2014

BY   
Matthew BURGER

Witnessed by:


  
Lisa Nash  
5300 Chiron Way  
Emeryville, CA 94608

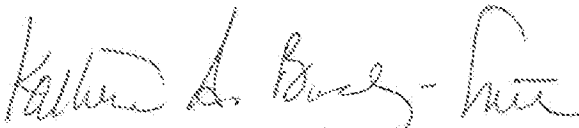
  
Katherine A. Buckley-Smith  
5300 Chiron Way  
Emeryville, CA 94608

Executed this 6 day of March, 2014

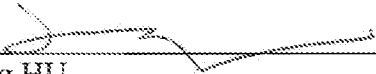
BY   
Michael Patrick DILLON

Witnessed by:


  
Lisa Nash  
5300 Chiron Way  
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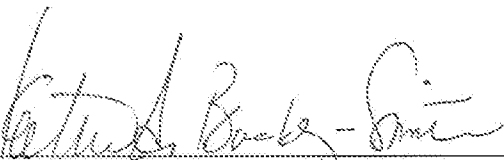
  
Katherine A. Buckley-Smith  
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Executed this 19 day of March, 2014

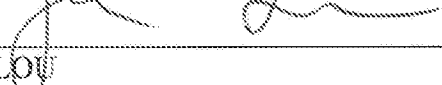
BY   
Cheng HU

Witnessed by:


  
Shruti Tibrewala  
5300 Chiron Way  
Emeryville, CA 94608

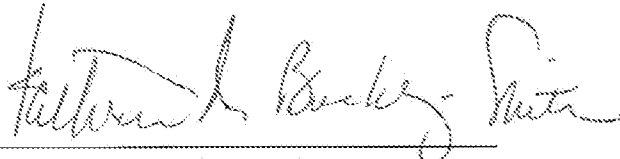
  
Katherine A. Buckley-Smith  
5300 Chiron Way  
Emeryville, CA 94608

Executed this 6 day of March, 2014

BY   
Yan LOU

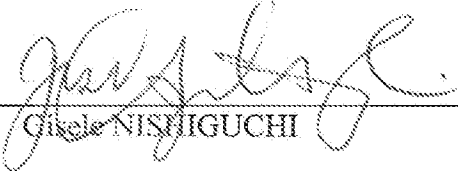
Witnessed by:

  
Lisa Nash  
5300 Chiron Way  
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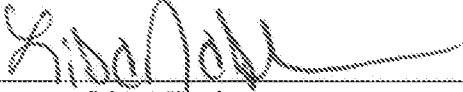
  
Katherine A. Buckley-Smith  
5300 Chiron Way  
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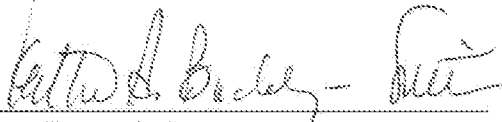


Executed this 11 day of March, 2014


BY   
Chikae NISHIGUCHI

Witnessed by:


  
Lisa Nash  
5300 Chiron Way  
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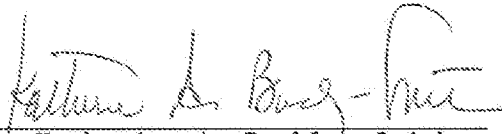
  
Lisa Nash  
5300 Chiron Way  
Emeryville, CA 94608

Executed this 6 day of March, 2014

BY   
Yue PAN

Witnessed by:


  
Lisa Nash  
5300 Chiron Way  
Emeryville, CA 94608

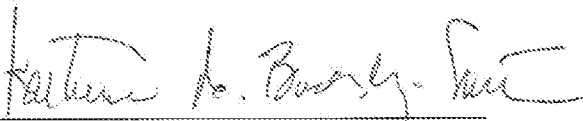
  
Katherine A. Buckley-Smith  
5300 Chiron Way  
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Executed this 6 day of March, 2014

BY   
Valeri POLYAKOV

Witnessed by:

  
Lisa Nash  
5300 Chiron Way  
Emeryville, CA 94608

  
Katherine A. Buckley-Smith  
5300 Chiron Way  
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Executed this 6<sup>th</sup> day of March, 2014

BY [Signature]  
Savithri RAMURTHY

Witnessed by:

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Lisa Nash  
5300 Chiron Way  
Emeryville, CA 94608

[Signature]  
Katherine A. Buckley-Smith  
5300 Chiron Way  
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Executed this 6<sup>th</sup> day of March, 2014

BY [Signature]  
Alice RICO

Witnessed by:

[Signature]  
Lisa Nash  
5300 Chiron Way  
Emeryville, CA 94608

[Signature]  
Katherine A. Buckley-Smith  
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Executed this 6<sup>th</sup> day of March, 2014

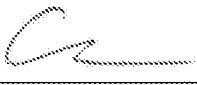
BY [Signature]  
Lina SETT

Witnessed by:

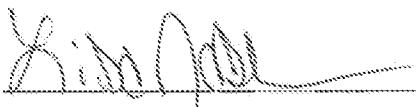
[Signature]  
Lisa Nash  
5300 Chiron Way  
Emeryville, CA 94608


[Signature]  
Katherine A. Buckley-Smith  
5300 Chiron Way  
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Executed this 6<sup>th</sup> day of March, 2014

BY   
Aaron SMITH

Witnessed by:

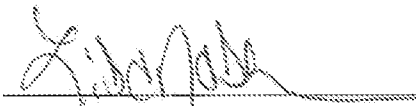
  
Lisa Nash  
5300 Chiron Way  
Emeryville, CA 94608

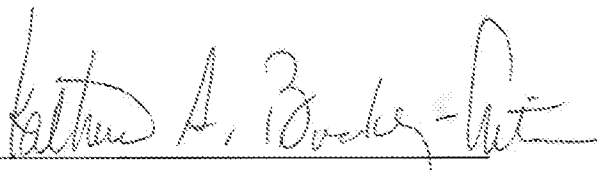
  
Katherine A. Buckley-Smith  
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Emeryville, CA 94608

Executed this 6 day of March, 2014

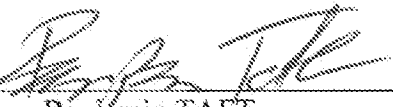
BY   
Sharadha SUBRAMANIAN

Witnessed by:

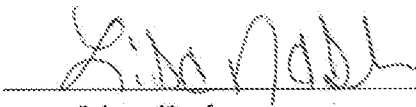
  
Lisa Nash  
5300 Chiron Way  
Emeryville, CA 94608

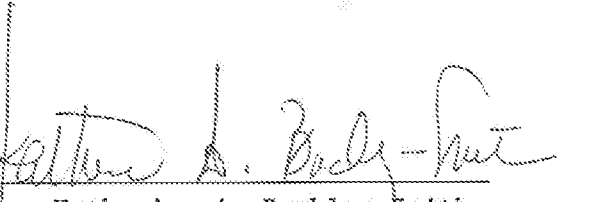
  
Katherine A. Buckley-Smith  
5300 Chiron Way  
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Executed this 6<sup>th</sup> day of March, 2014

BY   
Benjamin TAFT

Witnessed by:

  
Lisa Nash  
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Katherine A. Buckley-Smith  
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Executed this 6 day of March, 2014

BY Huw Tanner  
Huw TANNER

Witnessed by:

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Lisa Nash  
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Katherine A. Buckley-Smith

Katherine A. Buckley-Smith  
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Executed this 6 day of March, 2014

BY Lifeng Wan  
Lifeng WAN

Witnessed by:

Lisa Nash

Lisa Nash  
5300 Chiron Way  
Emeryville, CA 94608

Katherine A. Buckley-Smith

Katherine A. Buckley-Smith  
5300 Chiron Way  
Emeryville, CA 94608

~~Novartis Vaccines and Diagnostics, Inc.~~

~~Executed this 7th day of March, 2014~~

~~BY Michael H. Smith~~

~~Name: Michael H. Smith~~  
~~Title: Authorized Representative~~

~~Witnessed by:~~

~~Lisa Nash~~

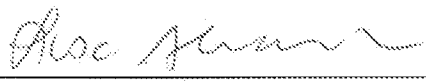
~~Name: Lisa Nash~~  
~~Address: 5300 Chiron Way~~  
~~Emeryville, CA 94608~~

~~Karen Zielen~~


~~Name: Karen Zielen~~  
~~Address: 5300 Chiron Way~~  
~~Emeryville, CA 94608~~

NOVARTIS VACCINES AND DIAGNOSTICS, INC.

Executed this 3<sup>rd</sup> day of April, 2014

BY   
Lisa E. Alexander  
Authorized Signatory

Witnessed by:

  
Name: Lisa Nash  
Address: 5300 Chiron Way  
Emeryville, CA 94608

  
Name: Karen Zielen  
Address: 5300 Chiron Way  
Emeryville, CA 94608