

PATENT ASSIGNMENT

Electronic Version v1.1
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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>Guoying Yu</td> <td>01/04/2011</td> </tr> <tr> <td>Edward Moler</td> <td>01/18/2011</td> </tr> <tr> <td>Michael Rowe</td> <td>01/14/2011</td> </tr> </tbody> </table>		Name	Execution Date	Guoying Yu	01/04/2011	Edward Moler	01/18/2011	Michael Rowe	01/14/2011
Name	Execution Date								
Guoying Yu	01/04/2011								
Edward Moler	01/18/2011								
Michael Rowe	01/14/2011								
RECEIVING PARTY DATA									
Name:	Novartis Vaccines and Diagnostics, Inc.								
Street Address:	4560 Horton Street								
Internal Address:	Mail Stop X-100B								
City:	Emeryville								
State/Country:	CALIFORNIA								
Postal Code:	94608								
PROPERTY NUMBERS Total: 1									
<table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>11918179</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	11918179				
Property Type	Number								
Application Number:	11918179								
CORRESPONDENCE DATA									
Fax Number:	(617)871-3392								
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>									
Phone:	(510) 923-2707								
Email:	lisa.nash@novartis.com								
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Address Line 4:	Cambridge, MASSACHUSETTS 02139								
ATTORNEY DOCKET NUMBER:	PAT051996-US-PCT								
NAME OF SUBMITTER:	Lisa Nash								
Total Attachments: 9									

CH \$40.00 11918179

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PATENT
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ASSIGNMENT

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

(1) Guoying Yu, (2) Edward Moier and (3) Michael Rowe

do hereby sell, assign and transfer to Novartis Vaccines and Diagnostics, Inc., a company organized under the laws of Delaware, having its principal place of business as 4560 Horton Street, Emeryville, CA 94608-2916 (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

SEMA4D in Cancer Diagnosis, Detection and Treatment

and filed in the United States Patent and Trademark Office on November 19, 2006 and accorded Application Number 11/918,179* and/or filed in the RO/US/PCT on April 7, 2006 and accorded International Patent Application Number PCT/US2006/013174*, (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 April 7, 2005 and accorded Application Number 60/669,855, (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.

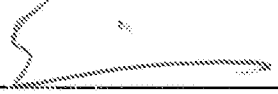
*We hereby authorize ASSIGNEE and their representatives to insert in this Assignment the filing date(s) and Application Number(s) of said patent application(s) when notified thereof.

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 4 day of Jan, 2011


_____ L.S.

Guoying Yu

Executed this _____ day of _____, 20__.

_____ L.S.

Edward Moler

Executed this _____ day of _____, 20__.

_____ L.S.

Michael Rowe

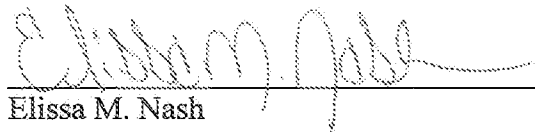
State of California

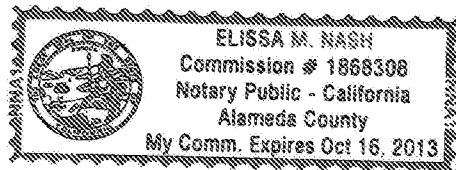
County of Alameda

On January 4, 2011 before me, Elissa M. Nash, personally appeared Guoying Yu who provided to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that she executed the same in her authorized capacity, and that by her signature on the instrument the person, or entity upon behalf of which the person acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.


Elissa M. Nash



ASSIGNMENT

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

(1) Guoying Yu, (2) Edward Moler and (3) Michael Rowe

do hereby sell, assign and transfer to Novartis Vaccines and Diagnostics, Inc., a company organized under the laws of Delaware, having its principal place of business as 4560 Horton Street, Emeryville, CA 94608-2916 (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

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*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.

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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 _____ day of _____, 20__.

Guoying Yu L.S.

Executed this 18 day of Jan, 2011.

Edward Moler
Edward Moler L.S.

Executed this _____ day of _____, 20__.

Michael Rowe L.S.

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

State of California

County of Alameda }

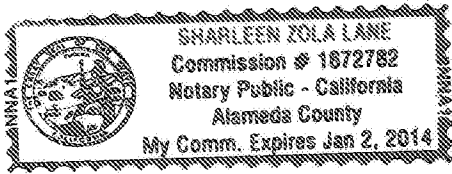
On January 18, 2011 before me, Sharleen Zola Lane, Notary Public,
Date Here Insert Name and Title of the Officer

personally appeared Edward Moler
Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.



Place Notary Seal Above

Signature Sharleen Zola Lane
Signature of Notary Public

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

Description of Attached Document

Title or Type of Document: Assignment

Document Date: 1-18-11 Number of Pages: 2

Signer(s) Other Than Named Above: ∅

Capacity(ies) Claimed by Signer(s)

Signer's Name: _____

- Individual
- Corporate Officer — Title(s): _____
- Partner — Limited General
- Attorney in Fact
- Trustee
- Guardian or Conservator
- Other: _____



Signer is Representing: _____

Signer's Name: _____

- Individual
- Corporate Officer — Title(s): _____
- Partner — Limited General
- Attorney in Fact
- Trustee
- Guardian or Conservator
- Other: _____



Signer is Representing: _____

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


Executed this _____ day of _____, 20__.

Guoying Yu L.S.

Executed this _____ day of _____, 20__.

Edward Moler L.S.

Executed this 1st day of January, 2011.



Michael Rowe L.S.

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

State of California

County of Alameda }

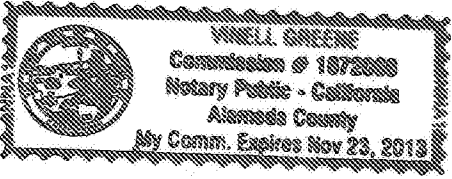
On January 14th 2011 before me, VINELL GREENE NOTARY PUBLIC
Here Insert Name and Title of the Officer

personally appeared MICHAEL W. ROWE
Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.



Place Notary Seal Above

Signature *Vinell Greene*
Signature of Notary Public

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

Description of Attached Document

Title or Type of Document: _____

Document Date: _____ Number of Pages: _____

Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer(s)

Signer's Name: _____

- Individual
- Corporate Officer — Title(s): _____
- Partner — Limited General
- Attorney in Fact
- Trustee
- Guardian or Conservator
- Other: _____



Signer Is Representing: _____

Signer's Name: _____

- Individual
- Corporate Officer — Title(s): _____
- Partner — Limited General
- Attorney in Fact
- Trustee
- Guardian or Conservator
- Other: _____



Signer Is Representing: _____

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