

**PATENT ASSIGNMENT**

Electronic Version v1.1  
 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

**CONVEYING PARTY DATA**

Name	Execution Date
Massimo BIGIO	03/04/2010
Giovanni AVERANI	03/04/2010
Francesco NORELLI	03/04/2010
Francesco BERTI	02/16/2010
Cinzia BELLUCCI	02/10/2010

**RECEIVING PARTY DATA**

Name:	Novartis Vaccines and Diagnostics SRL
Street Address:	Via Fiorentina 1
City:	Siena
State/Country:	ITALY
Postal Code:	I-53100

**PROPERTY NUMBERS Total: 1**

Property Type	Number
PCT Number:	IB0802690

**CORRESPONDENCE DATA**

Fax Number: (510)655-3542  
*Correspondence will be sent via US Mail when the fax attempt is unsuccessful.*  
 Email: nafra.bates@novartis.com  
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ATTORNEY DOCKET NUMBER:	PAT052123-WO-PCT
NAME OF SUBMITTER:	Nafra Bates

Total Attachments: 4  
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CH \$40.00 IB0802690

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**PATENT  
 REEL: 024049 FRAME: 0449**

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RECORDATION FORM COVER SHEET  
PATENTS ONLY

PATC52123-WO-PCT

To the Director of Patents and Trademarks: Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):  
**Massimo BIGIO  
Giovanni AVERANI  
Francesco NORELLI  
Francesco BERTI  
Cinzia BELLUCI**

2. Name and address of receiving party(ies)  
Name:  
**NOVARTIS VACCINES AND DIAGNOSTICS SRL  
Via Fiorentina, 1  
I-53100 Siena  
IT**

Additional name(s) of conveying party(ies) attached?  Yes  No

3. Nature of conveyance:  
 Assignment  Merger  
 Security Agreement  Change of Name  
 Joint Research Agreement  Other \_\_\_\_\_  
 Government Interest Assignment  
 Executive Order 9424, Confirmatory License

Other  
Additional name(s) & address(es) attached?  Yes  No

Execution Date(s): March 4, 2010; March 4, 2010; March 4, 2010;  
February 16, 2010; February 10, 2010

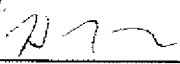
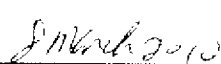
4. Application number(s) or patent number(s):  
If this document is being filed together with a new application, the execution date of the application is: \_\_\_\_\_.  
A. Patent Application No.(s)  
**PCT/IB2008/002690**

B. Patent No.(s)  
Additional number(s) attached  Yes  No

5. Name and address of party to whom correspondence concerning document should be mailed:  
**NOVARTIS VACCINES AND DIAGNOSTICS, INC.  
Corporate Intellectual Property – X 100B  
P.O. Box 8097  
Emeryville, CA 94662-8097  
US**

6. Total number of applications and patents involved **1**  
7. Total fee (37 CFR 3.41)..... \$40.00  
 Enclosed  
 Authorized to be charged to deposit account,  
8. Deposit account number: **03-1664**  
(Attach duplicate copy of this page if paying by deposit account)

DO NOT USE THIS SPACE

9. Statement and signature.  
*To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.*  
**Helen Lee, Reg. No. 39,270**              
Name of Person Signing      Signature      Date

Total number of pages including cover sheet, attachments, and document **4**

Documents to be recorded (including cover sheet) should be faxed to (571) 273-0140, or mailed to:  
Mail Stop Assignment Recordation Services, Director of the USPTO, P.O. Box 1450, Alexandria, VA 22313-1450

**ASSIGNMENT**

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

(1) Massimo Bigio, (2) Giovanni Averani, (3) Francesco Norelli, (4) Francesco Berti, and (5) Cinzia Bellucci

do hereby sell, assign and transfer to **Novartis Vaccines and Diagnostics S.R.L.**, with a place of business at Via Fiorentina 1, I-53100, Siena, Italy, (hereinafter referred to as the "**ASSIGNEE**") and its successors, assigns and legal representatives, all our right, title and interest for all countries of the world in and to (1) all of our inventions and discoveries described in the patent application(s) entitled

**CONJUGATE PURIFICATION**

and filed in the United States Patent and Trademark Office on \_\_\_\_\_, 20\_\_ and accorded Application Number \_\_\_\_\_\* and/or filed in the RO/IB on July 17, 2008, and accorded International Patent Application Number PCT/IB2008/002690, (2) said patent application(s), (3) all national stages of said international patent application, (4) all other patent applications in all countries and regions claiming the priority of the United Kingdom, patent application filed on July 17, 2007 and accorded Application Number 0713880.3 (5) all continuations and divisions of all of said patent applications (including further continuations and divisions such as, but not limited to, continuations of continuations and continuations of divisions), ((2)-(5) hereinafter referred to collectively as "patent applications"), (6) all patents that are granted on any of said patent applications, (7) all registrations and confirmations of, and importation certificates based on, one or more of said patents and (8) all reissues, renewals and extensions of said patents, reexamination certificates issued for said patents and supplementary protection certificates based on said patents (including the right to file patent applications on said inventions and discoveries in the names of **ASSIGNEE**, their designees or in any or all of our names, at their election and in accordance with applicable law in all countries and regions and all rights of priority in all countries and regions for all of said patent applications under the International Convention for the Protection of Industrial Property, and all other applicable similar international agreements), the same to be held and enjoyed by said **ASSIGNEE**, their successors, assigns and legal representatives, to the full ends of the terms for which all patents therefor 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 instrument the Application Number and the filing date of said patent application when notified thereof.

And we hereby covenant and agree that we will, at any time, upon the request and 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, patent applications, patents, registrations, confirmations, importation certificates, reissues, renewals, extensions, reexamination certificates and supplementary protection certificates in **ASSIGNEE**, their successors, assigns or other 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, that we will, at any time, upon the request and at the expense of **ASSIGNEE**, execute all additional patent applications, applications for registration and/or confirmation of one or more of said patents, applications for certificates of importation based on one or more of said patents, applications for reissues, renewals and extensions of one or more of said patents and supplemental protection certificates based upon one or more of said patents, and that we will 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**, the successors, assigns or other legal representatives.

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

Executed this 01 day of MARCH, 20 10.

Massimo Bigio L.S.  
Name: Massimo BIGIO

[Signature]  
Witness Signature

MARTA PAUA  
Print Name

Executed this 01 day of MARCH, 20 10.

Giovanni Averani L.S.  
Name: Giovanni AVERANI

[Signature]  
Witness Signature

MARTA PAUA  
Print Name

Executed this 01 day of MARCH, 20 10.

Francesco Norelli L.S.  
Name: Francesco NORELLI

[Signature]  
Witness Signature

MARTA PAUA  
Print Name

Executed this 16 day of February, 2010.

Francesco Berti L.S.  
Name: Francesco BERTI

Maria Palla  
Witness Signature

MARIA PALLA  
Print Name

Executed this 10 day of February, 2010.

Cinzia Bellucci L.S.  
Name: Cinzia BELLUCCI

Maria Palla  
Witness Signature

MARIA PALLA  
Print Name