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| SUBMISSION TYPE: | NEW ASSIGNMENT |
|-----------------------|----------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT |

CONVEYING PARTY DATA

| Name | Execution Date |
|-------------------|----------------|
| GIORGIO CAPANNOLI | 01/04/2008 |
| VALERIA CARINCI | 01/07/2008 |
| SANDRO D'ASCENZI | 12/18/2007 |
| CLAUDIA MAGAGNOLI | 12/18/2007 |

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 |
|---------------------|----------|
| Application Number: | 11630545 |

CORRESPONDENCE DATA

Fax Number: (510)923-3542

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

Phone: (510) 923-2192

Email: Arrendle.Brown@Novartis.com

Helen Lee Correspondent Name:

Address Line 1: 4560 Horton Street

Address Line 4: Emeryville, CALIFORNIA 94608-2916

| ATTORNEY DOCKET NUMBER: | PP022929.0004 |
|-------------------------|----------------|
| NAME OF SUBMITTER: | Arrendle Brown |

Total Attachments: 4

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REEL: 020418 FRAME: 0131

PATENT

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| Form PTO-1595 (Rev. 07/05) | RECORDATION FOR | | U.S. DEPARTMENT OF COMMERCE U.S. Patent and Trademark Office |
|--|---|--|---|
| OMB No. 0651-0027 (exp. 6/30/2008) | | | Atty Docket No.: PP022929.0004 |
| To the Director of Patents an | d Trademarks: Please rec | ord the attached original | documents or copy thereof. |
| Name of conveying party(ies): GIORGIO CAPANNOLI VALERIA CARINCI SANDRO D'ASCENZI CLAUDIA MAGAGNOLI | | Via Fiorentina 1, | CINES AND DIAGNOSTICS SRL |
| Additional name(s) of conveying party(ies) | attached? ☐ Yes ☒ No | Siena, Italy | |
| 3. Nature of conveyance: ☐ Assignment ☐ Security Agreement ☐ Joint Research Agreement ☐ Government Interest Assignment ☐ Executive Order 9424, Confirmatory Lice Execution Date(s): 1/4/2008, 1/7/2008, 12/18 | Merger Change of Name Other cense | ☐ Other Additional name(s) | & address(es) attached? ☐ Yes ☒ No |
| 4. Application number(s) or patent number If this document is being filed together v A. Patent Application No.(s) PCT/IB2005/002532 (now US) | with a new application, the o | B. Patent No.(s) | plication is: |
| | Additional number(s) atta | ached 📙 Yes 🖾 No | |
| Name and address of party to whom co concerning document should be mailed | | 6. Total number of applica | ations and patents involved 1 |
| NOVARTIS VACCINES AND DI Intellectual Property – R338 P.O. Box 8097 Emeryville, CA 94662-8097 USA | IAGNOSTICS, INC. | 7. Total fee (37 CFR 3 ☐ Enclosed ☑ Authorized to be | 3.41)\$40.00 e charged to deposit account, |
| | | Deposit account nu (Attach duplicate copy | mber: 03-1664 of this page if paying by deposit account) |
| | DO NOT USE T | HIS SPACE | |
| copy of the original document. Helen Lee, Reg. No. 39,270 Name of Person Signing | 72 — Signature | | Totale |
| | imber of pages including cover | | |
| | cuments to be recorded with Inment Recordation Services, Alexandria V | <u>■</u> | |

I hereby certify that this paper is being transmitted electronically to the Assignment Recordation Services Office of the United States Patent and Trademark Office on the below identified date.

ASSIGNMENT

WHEREAS, WE, GIORGIO CAPANNOLI, VALERIA CARINCI, SANDRO D'ASCENZI and CLAUDIA MAGAGNOLI, hereinafter referred to as **ASSIGNORS**, have invented certain new and useful improvements as described and set forth in the below-identified International Patent Application and application for United States Letters Patent:

Title of Invention: DIMENSIONAL ANALYSIS OF SACCHARIDE CONJUGATES

WITH GPC & SEC-MALS

Date(s) of Execution:01/04/08, 01/07/08, 12/18/07, 12/18/07

Application Nos: PCT/IB

PCT/IB2005/002532

Filing Date: June 21, 2005

US 11/630,545

Filing Date: June 21, 2005

WHEREAS, NOVARTIS VACCINES AND DIAGNOSTICS SRL, with a place of business at Via Fiorentina 1, I-53100, Siena, Italy, hereinafter referred to as ASSIGNEE, is desirous of acquiring the entire right, title and interest in the above invention and application and in any Letters Patent which may be granted on the same;

NOW, THEREFORE, TO ALL WHOM IT MAY CONCERN: Be it known that, for and in consideration of the sum of One Dollar (\$1.00) lawful money paid to ASSIGNORS by ASSIGNEE, receipt of which is hereby acknowledged, ASSIGNORS have sold, assigned and transferred, and by these presents do sell, assign and transfer unto said ASSIGNEE, and ASSIGNEE'S successors and assigns, all right, title and interest in and to the said invention, said application(s) and any Letters Patent which may hereafter be granted on the same in the United States and all countries throughout the world including any divisionals, renewals, continuations in whole or in part, substitutions, conversions (including conversions claiming priority under 35 U.S.C. §119(e)), reissues, prolongations or extensions thereof, the said interest to be held and enjoyed by said ASSIGNEE as fully and exclusively as it would have been held and enjoyed by said ASSIGNORS had this assignment and transfer not been made, to the full end and term of any Letters Patent.

ASSIGNORS further agree that they will, without charge to said ASSIGNEE, but at ASSIGNEE'S expense, cooperate with ASSIGNEE in the prosecution of said application and/or applications, execute, verify, acknowledge and deliver all such further papers, including applications for Letters Patent and for the reissue thereof, and instruments of assignment and transfer thereof, and will perform such other acts as ASSIGNEE lawfully may request, to obtain or maintain Letters Patent for said invention and improvement in any and all countries, and to vest title thereto in said ASSIGNEE, or ASSIGNEE'S successors and assigns.

IN TESTIMONY WHEREOF, ASSIGNORS have hereunto signed their name to this assignment on the date indicated below.

| Date 044EH08 | _ go geli |
|-----------------|---------------------|
| | GIORGIO CAPANNOLI |
| | Varta Pallo Witness |
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| Date Of Gen. 08 | Volue Cerie |
| V | VALERIA CARINCI |
| <u></u> | Witness trou |
| | Witness |

| Date _ | 18 hicox | SANDRO D'ASCENZI |
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| | | Witness Witness |
| Date _ | 18 Die 07 | CLAUDIA MAGAGNOS |
| | | Witness From |

Witness

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