503972410 08/23/2016

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4019066

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
NOVARTIS VACCINES AND DIAGNOSTICS INC	09/19/2012

RECEIVING PARTY DATA

Name:	NOVARTIS AG
Street Address:	LICHTSTRASSE 35
City:	BASEL
State/Country:	SWITZERLAND
Postal Code:	4056

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14407987

CORRESPONDENCE DATA

Fax Number: (610)270-6812

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

using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 6102706812

Email: us_cipkop@gsk.com

Correspondent Name: GLAXOSMITHKLINE

Address Line 1: 709 SWEDELAND ROAD

Address Line 2: UW2220

Address Line 4: KING OF PRUSSIA, PENNSYLVANIA 19406

ATTORNEY DOCKET NUMBER:	VN55127
NAME OF SUBMITTER:	CARLY MORROW
SIGNATURE:	/Carly Morrow/
DATE SIGNED:	08/23/2016

Total Attachments: 3

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PATENT 503972410 REEL: 039508 FRAME: 0800

ASSIGNMENT OF PATENT APPLICATION

Whereas Novartis Vaccines and Diagnostics Inc., a corporation organized under the laws of the state of Delaware and having a place of business at 4560 Horton Street, Emeryville, California, 94608 USA, ("ASSIGNOR") and Novartis AG, a corporation of the country of Switzerland and having a place of business at Lichtstrasse 35, 4056 Basel, Switzerland, ("ASSIGNEE") have agreed that ASSIGNEE shall acquire from ASSIGNOR the following patents and/or patent applications ("PATENT PROPERTIES"):

Patent No. Application No. Filing Date Issue Date

US 61/659,595 June 14, 2012

Therefore, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, ASSIGNOR, the owner of the entire right, title, and interest in the PATENT PROPERTIES, hereby sells, assigns, transfers and conveys to ASSIGNEE, its designees, successors, assigns and legal representatives, the entire right, title and interest in the PATENT PROPERTIES and all divisions, continuations, reissues and reexaminations thereof, the inventions therein, and all rights to claim priority from the PATENT PROPERTIES and all applications for patent that may be filed for the inventions in any foreign country and all patents that may be granted on the inventions in any foreign country, and all extensions, renewals, and reissues thereof; each and every of the foregoing rights, titles and interests herein assigned shall be held and enjoyed by ASSIGNEE, its successors, assigns and legal representatives, as fully and entirely as the same would have been held and enjoyed by ASSIGNOR had this Assignment not been made. This Assignment is effective as from the earliest priority date as stated above.

PATENT REEL: 039508 FRAME: 0801 in its name and behalf by affixing its hand and seal thereto by its designated officer, director, or agent, whose name and title appear below. Executed at Emeryville, California this ______ day of September, 2012. Novartis Vaccines and Diagnostics, Inc. Signature Name: Amy Hessler Title: Attorney-in-Fact State of California County of Alameda On Solary Public, personally appeared Amy Hessler, who proved 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 the 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. Signature of Notary Public MELODI K. DICE Commission & 1881459 Print Name: MEVODI IC DICE Notary Public - California My Comm. Expires Mar 30, 2014 My commission expires:

MARCH 30,2014

IN TESTIMONY WHEREOF, Assignor has caused this Assignment to be duly executed

PATENT REEL: 039508 FRAME: 0802

ACCEPTANCE OF ASSIGNMENT

With reference to the Assignment to NOVARTIS AG of an invention entitled "VACCINES FOR SEROGROUP X MENINGOCOCCUS" signed by Novartis Vaccines and Diagnostics, Inc.; this will certify that NOVARTIS AG accepts such Assignment.

NOVARTIS AG					
Ву:	Ulac D	_ Jaka Pat			
Name:	Melodi K. Dice	Nafra Bates			
Function:	Authorized Representative	Authorized Representative			
Date:	19 Splemby 2012				

PATENT REEL: 039508 FRAME: 0803

RECORDED: 08/23/2016