PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE: NEW ASSIGNMENT

NATURE OF CONVEYANCE: ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Novartis Vaccines & Diagnostics, Inc.	11/17/2011

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:	12287891

CORRESPONDENCE DATA

Fax Number: (510)655-3542

Email: diana-1.castillo@novartis.com

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

via US Mail.

Correspondent Name: Novartis Vaccines and Diagnostics, Inc.

Address Line 1: 4560 Horton Street
Address Line 2: IP Services M/S X-100B

Address Line 4: Emeryville, CALIFORNIA 94608-2916

ATTORNEY DOCKET NUMBER: PAT052115-US-NP

NAME OF SUBMITTER: Helen Lee

Total Attachments: 3

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> PATENT REEL: 027311 FRAME: 0218

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ASSIGNMENT OF PATENT APPLICATION

Whereas Novartis Vaccines & Diagnostics Inc., a corporation of the country of the United States of America, having a place of business at 4560 Horton Street, Emeryville, California, 94608 USA, ("ASSIGNOR") and Novartis AG, a corporation of Switzerland 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
	12/287,891	October 14, 2008	

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 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.

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

PATENT REEL: 027311 FRAME: 0219

	Novartis Vaccines & Diagnostics, Inc.
	Signature Name: Amy Hessler Title: Attorney-in-Fact
State of California) County of Alameda)	
appeared <u>Amy Hessler</u> , who proved to me person whose name is subscribed to the with	Notary Public, personally e on the basis of satisfactory evidence to be the thin instrument and acknowledged to me that she y, and that by her signature on the instrument the e person acted, executed the instrument.
I certify under PENALTY OF PERJURY us foregoing paragraph is true and correct.	under the laws of the State of California that the
WITNESS my hand and official seal.	
Signature of Notary Public	Place Notary Seal Above

Executed at Emeryville, California this ______ day of ____ November__, 2011.

PATENT REEL: 027311 FRAME: 0220

ACCEPTANCE OF ASSIGNMENT

With reference to the Assignment to NOVARTIS AG of an invention entitled "POLYCHLORINATED BIPHENYLS AND SQUALENE-CONTAINING ADJUVANTS" signed by Novartis Vaccines and Diagnostics, Inc.; this will certify that NOVARTIS AG accepts such Assignment.

NOVARTIS AG					
By:	Uleban 7 D		_		
Name:	Melodi K. Dice	Lisa Nash			
Function:	Authorized Representative	Authorized Representative			
Date:	22 NOWWER 2011				

RECORDED: 12/01/2011

PATENT REEL: 027311 FRAME: 0221