

## PATENT ASSIGNMENT COVER SHEET

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<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT	
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT	
<b>SEQUENCE:</b>	1	
<b>CONVEYING PARTY DATA</b>		
	<b>Name</b>	<b>Execution Date</b>
	BERNHARD ROTH	03/27/2015
<b>RECEIVING PARTY DATA</b>		
<b>Name:</b>	NOVARTIS VACCINES AND DIAGNOSTICS GMBH	
<b>Street Address:</b>	EMIL-VON-BEHRING STRASSE 76	
<b>City:</b>	MARBURG	
<b>State/Country:</b>	GERMANY	
<b>Postal Code:</b>	35041	
<b>PROPERTY NUMBERS Total: 2</b>		
	<b>Property Type</b>	<b>Number</b>
	<b>Application Number:</b>	61463980
	<b>Application Number:</b>	14001462
<b>CORRESPONDENCE DATA</b>		
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<b>ATTORNEY DOCKET NUMBER:</b>	PAT054575-US-PCT	
<b>NAME OF SUBMITTER:</b>	OTIS LITTLEFIELD	
<b>SIGNATURE:</b>	/Otis Littlefield/	
<b>DATE SIGNED:</b>	04/21/2015	
<b>Total Attachments: 2</b>		
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## ASSIGNMENT

This assignment is by:

1. Bernhard ROTH  
c/o Novartis Vaccines and Diagnostics GmbH  
Emil-von-Behring-Strasse 76  
35041 Marburg  
GERMANY

(referred to in this Assignment as "Assignor"), who resides at or have a mailing address as listed above.

This Assignment is to:

Assignee: Novartis Vaccines and Diagnostics GmbH  
Address: Emil-von-Behring Strasse 76, 35041 Marburg, GERMANY  
A corporation duly organized under and pursuant to the laws of: Germany

(referred to in this Assignment as "Assignee"), who desire to acquire the entire right, title and interest in said inventions and said application for letters patent of the United States, and in any United States or foreign, letters patent or patents, to be obtained therefor and thereon.

Assignor has invented certain new and useful inventions in:

### EXOGENOUS INTERNAL POSITIVE CONTROL

for which the following applications have been filed in the United States of America.

Serial No.: 61/463,980	Filing Date: February 25, 2011
Serial No.: 14/001,462	(Int'l) Filing Date: February 24, 2012

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

1. Assignor hereby sells, assigns, transfers and sets over, to Assignee, its successors, legal representatives and assigns, the entire right, title and interest in and to the above-mentioned inventions, provisional application and application for letters patent, and any and all letters patent or patents in the United States of America and all foreign countries which may be granted therefor and thereon, and in and to any and all provisionals, non-provisionals, divisions, continuations, continuations-in-part and substitutions of said application, or reissues, re-examinations or extensions of said letters patent or patents, and all rights under the International Convention for the Protection of Industrial Property, the same to be held and enjoyed by Assignee (including any right to institute actions and to recover for past, present and future infringement), for its own use and the use of its successors, legal representatives and assigns, to the full end of the term or terms for which letters patent or patents may be granted, as fully and entirely as the same would have been held and enjoyed by Assignor, had this sale and assignment not been made.
2. Assignor represents, warrants and covenants that, at the time of execution and delivery of this agreement, Assignor is the sole and lawful owner of the entire right, title and interest in and to said inventions and said application for letters patent, and that the same are unencumbered and that Assignor has good and full right and lawful authority to sell and convey the same in the manner set forth in this agreement.
3. Assignor shall promptly sign and execute all papers and documents, take all lawful oaths, and do all acts necessary, required or useful for the procurement, maintenance, enforcement, defense or otherwise to secure title thereto to the Assignee, at the sole cost and expense of Assignee, its successors, legal representatives and assigns, in each case including, without limitation, arising from or relating to (a) said inventions, or said application for letters patent; (b) letters patent for said inventions in any country, including any reissue, re-examination or extension of or interference

proceedings; or (c) any provisional, division, continuation, continuation-in-part, or substitutions of any application for letters patent or any reissues, re-examinations, extensions or interference proceedings involving any letters patent, to be obtained thereon. To be clear, for purposes of this paragraph, "desirable" shall include, without limitation, any act necessary or useful in connection with United States laws and/or international conventions.

4. Assignor hereby authorizes and requests the Commissioner of Patents in the United States to issue the above mentioned letters patents of the United States to Assignee as the assignee of said inventions and the letters patent to be issued thereon for the sole use of Assignee, its successors, legal representatives and assigns.

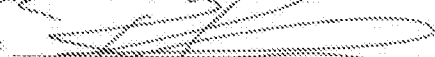
5. "I hereby grant Assignee's attorneys, all of Morrison & Foerster LLP, the power to insert on this assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark office for recordation of this document, including the power to insert on this assignment the application number and filing date of said application when known."

In witness whereof, executed by the undersigned on the date(s) opposite the undersigned name(s).

Date:

24th March 2015

Signature:



Bernhard ROTH