



Form PTO-1595 (Rev. 07/05) OMB No. 0651-0027 (exp. 6/30/2008)		RECORDATION FORM COVER SHEET PATENTS ONLY		U.S. DEPARTMENT OF COMMERCE U.S. Patent and Trademark Office	
Atty Docket No.: PP023748.0003					
To the Director of Patents and Trademarks: Please record the attached original documents or copy thereof.					
1. Name of conveying party(ies): Jang HAN Michael HOUGHTON Additional name(s) of conveying party(ies) attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			2. Name and address of receiving party(ies) Name: NOVARTIS VACCINES AND DIAGNOSTICS, INC. 4560 Horton Street Emeryville, CA 94608-2916 <input type="checkbox"/> Other Additional name(s) & address(es) attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
3. Nature of conveyance: <input checked="" type="checkbox"/> Assignment <input type="checkbox"/> Security Agreement <input type="checkbox"/> Joint Research Agreement <input type="checkbox"/> Government Interest Assignment <input type="checkbox"/> Executive Order 9424, Confirmatory License <input type="checkbox"/> Merger <input type="checkbox"/> Change of Name <input type="checkbox"/> Other _____			Execution Date(s): 01/15/08, 02/19/08		
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) U.S. Application No.: 11/664,008 Filing Date: Not Granted Yet Additional number(s) attached <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
5. Name and address of party to whom correspondence concerning document should be mailed: NOVARTIS VACCINES AND DIAGNOSTICS, INC. Corporate Intellectual Property - R338 P.O. Box 8097 Emeryville, CA 94662-8097			6. Total number of applications and patents involved 1 7. Total fee (37 CFR 3.41)..... \$40.00 <input type="checkbox"/> Enclosed <input checked="" type="checkbox"/> 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: <i>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.</i> <div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> Mark Seka (Reg. No. 44,330) Name of Person Signing </div> <div style="width: 30%; text-align: center;">  Signature </div> <div style="width: 30%; text-align: right;"> February 27, 2008 Date </div> </div> <div style="text-align: center; margin-top: 10px;"> Total number of pages including cover sheet, attachments, and document: 6 </div>					

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

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 Joy M. Marshall

February 27, 2008
 Date

Novartis Docket No. PP023748.0003

ASSIGNMENT**WHEREAS, WE, Jang HAN and Michael HOUGHTON**

hereinafter referred to as **ASSIGNORS**, have invented certain new and useful improvements as described and set forth in the below-identified application for United States Letters Patent:

Title of Invention: **MODIFIED SMALL INTERFERING RNA MOLECULES AND METHODS OF USE**

International Application No.: PCT/US2005/035493 IA Filing Date: Sept. 30, 2005
US Application No. 11/664,008 Submission Date: March 27, 2007

WHEREAS, Novartis Vaccines and Diagnostics, Inc., a corporation of the State of Delaware, 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 for United States Letters Patent, and any Letters Patent which may hereafter be granted on the same in the United States and all countries throughout the world including any divisions, 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.

Novartis Docket No. PP023748.0003

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 names to this assignment on the dates indicated below.

DATE

1/15/08

Jang HAN

Qui-Lim Choo

Print Witness Name

Qui-Lim Choo

Witness Signature

DATE

Michael HOUGHTON

Print Witness Name

Witness Signature

Novartis Docket No. PP023748.0003

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- 1 -

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PATENT
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Novartis Docket No. PP023748.0003

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DATE _____

Jang HAN

Print Witness Name_____
Witness Signature

DATE Feb. 19th, 2008

Michael HOUGHTON

S HUTCHINSON

Print Witness NameS Hutchin

Witness Signature

FACSIMILE TRANSMITTAL

NOVARTIS VACCINES AND DIAGNOSTICS, INC.

Corporate Intellectual Property

P.O. Box 8097

Emeryville, CA 94662-8097

Telephone: (510) 923-2136

Facsimile Number: (510) 655-3542

Date: February 27, 2008

**To: ASSIGNMENT RECORDATION SERVICES
United States Patent and Trademark Office**

Facsimile No. 1-571-273-0140

From: Joy Marshall

**Re: U.S. Application No. 11/664,008
Our Reference No.: PP 023748.0003**

Message: Attached please find the following documents:

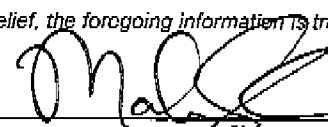
- 1. Form PTO-1595**
- 2. Assignment (4 pages); and**
- 3. DUPLICATE COPY: Form PTO-1595
(for payment by Deposit Account No. 03-1664)**

PLEASE ACKNOWLEDGE RECEIPT OF THIS FACSIMILE: 510-655-3542

Total number of pages, including this cover sheet: 7

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9. Statement and signature: <i>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.</i> <div style="display: flex; justify-content: space-between;"> <div style="width: 40%;"> Mark Seka (Reg. No. 44,330) Name of Person Signing </div> <div style="width: 30%; text-align: center;">  Signature </div> <div style="width: 30%; text-align: right;"> February 27, 2008 Date </div> </div> <div style="text-align: center; margin-top: 10px;"> Total number of pages including cover sheet, attachments, and document: 6 </div>					

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 Joy M. Marshall

February 27, 2008
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