510-923-3542

			U.S. DEPARTMENT OF COMMERCI U.S. Patent and Trademark Offic	
(Řev. 07/05) OMB No. 0651-0027 (exp. 6/30/2008)	PATENTS ONLY		Atty Docket No.: PP023466.0004	
To the Director of Patents and T	Frademarks: Please record			
To the Director of Patents and 1 1. Name of conveying party(ies):	1	Name and address of		
David Chien	2.	Name:		
Doris Colt Carlos George-Nascimento			INES AND DIAGNOSTICS, INC	
Sansan Lin		4560 Horton Stre		
Angelica Medina-Selby Laura Tandeske		Emeryville, CA 9	4608-2916	
Additional name(s) of conveying party(ies) atta	ached? 🗆 Yes 🛛 No	C Other		
<ol> <li>Nature of conveyance:</li> </ol>		Additional pame(c) &	address(es) attached? 🗖 Yes 🖄 No	
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	ther			
Government Interest Assignment				
Execution Date(\$): 3/07/08, 03/06/08, 3/08/	/08. 3/07/08.			
03/06/08, 03/07/08				
<ol> <li>Application number(s) or patent number(s) If this document is being filed together with</li> <li>A. Patent Application No.(s)</li> </ol>	): n a new application, the exec 	cution date of the appli	ication is;	
U.S. Application No.: 11/661,5	577			
Filing Date: March 17, 2008				
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	Additional number(s) attact		<u> </u>	
<ol><li>Name and address of party to whom corre- concerning document should be malled:</li></ol>	6.	. Total number of appl	lications and patents involved 1	
NOVARTIS VACCINES AND DIAGN Corporate Intellectual Property – R	IOSTICS, INC. 2338 7.	. Total fee (37 CFR 3.	41) <b>\$40.00</b>	
P.O. Box 8097 Emeryville, CA 94662-8097		Enclosed Authorized to be	charged to deposit account	
	8,	. Deposit account nur	nber: 03-1664	
	(4	Attach duplicate copy (	of this page if paying by deposit account	
	DO NOT USE TH	IIS SPACE		
9. Statement and signature:				
<ol> <li>Statement and signature:</li> <li>To the best of my knowledge and belief,</li> </ol>	the foregoing information is	true and correct and a	any attached copy is a true copy of the	
original document.	m ND		ρ	
Mark Seka (Reg. No. 44,330)	d     d		<u>September</u> 2008	
Name of Person Signing	Signature	)	Date	
Total nu	imber of pages including cover si	heet, attachments, and do	ocument: 8	
Mall Stop Assignment Recordation		TO, P.O. Box 1450, Alex	andna, VA 22313-1450	
I hereby certify that this paper is being transf United States Patent and Trademark Office a	mitted via facsimile or e-ma at facsimile number (571) 27	tiled to the Assignmen 73-0140.	at Recordation Services Office of the	
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)383834		DECI		
1000004		KEEL	<u>.: 021504 FRAME: 0348</u>	

#### ASSIGNMENT

# WHEREAS, WE, David Chien, Doris Coit, Carlos George-Nascimento, Sansan Lin, Angelica Medina-Selby, Laura Tandeske

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: HCV MULTIPLE EPITOPE FUSION ANTIGENS WITH MODIFIED PROTEOLYTIC CLEAVAGE SITES AND USES THEREOF

Int'l Application No.: PCT/US05/030324 Filing Date: Aug. 26, 2005

US Patent Application No. 11/661,577

Submission Date: Feb. 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

- 1 -

ASSIGNORS had this assignment and transfer not been made, to the full end and term of any Letters Patent.

**ASSIGNORS** also agree that the U.S. serial number may be entered above by **ASSIGNEE** or its agents upon designation of the serial number by the U.S. Patent and Trademark Office.

**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.

7. March, 2++ F DATE Witness Signature <u>Ampelica Medina - Selby</u> <u>Print Witness Name</u> <u>March 6, 2009</u> Doris Coit <u>Doris Coit</u> <u>Doris Coit</u> <u>March 6, 2009</u> <u>Doris Coit</u> <u>March 6, 2009</u> <u>Doris Coit</u> <u>Witness Signature</u> DATE

F: SHARED\INTPROP\\$OPS\FORM\$\MISSING PARTS\AS\$IGNMENT WITNESSED PATENT REEL: 021504 FRAME: 0350

DATE \_\_\_\_\_ Carlos George-Nascimento Witness Signature Print Witness Name DATE \_\_ 3/7/08 Sansan Lin Yiu-Lian Fong Witness Signature Print Witness Name Angelica Medina-Selby DATE March 6 2008 Pous Cort Witness Signature Doris Coit Print Witness Name Vaun Tarchiste DATE March 7 2003 Laura Tandeske Liffany Isang Withess Signature

F: SHARED/INTPROP/SOPS/FORMS/MISSING PARTS/ASSIGNMENT WITNESSED PATENT REEL: 021504 FRAME: 0351

#### ASSIGNMENT

## WHEREAS, WE, David Chien, Doris Coit, Carlos George-Nascimento, Sansan Lin, Angelica Medina-Selby, Laura Tandeske

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Int'l Application No.: PCT/US05/030324

Filing Date: Aug. 26, 2005

US Patent Application No. 11/661,577

Submission Date: Feb. 27, 2007

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- 1 -

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

DATE		David Chien	
	Print Witness Name	Witness Signature	
DATE		Doris Coit	<u></u> ,,
	Print Witness Name	Witness Signature	
		- 2 -	

F: SHARED\INTPROP\SOPS\FORMS\MISSING PARTS\ASSIGNMENT WITNESSED PATENT REEL: 021504 FRAME: 0353  ${\bf v}_{i+1}$ 

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Novartis Docket No. PP023466.0004

DATE March 8, 2008 CECILIA COLLADOS Print Witness Name	Carlos George-Nasgimento Cruli A Co 44/S Witness Signature
DATE	Sansan Lin
Print Witness Name	Witness Signature
DATE	Angelica Medina-Selby
Print Witness Name	Witness Signature
	Laura Tandeske
Print Witness Name	Witness Signature

- 3 -

F: SHARED\INTPROP\SOPS\FORMS\MISSING PARTS\ASSIGNMENT WITNESSED

PATENT REEL: 021504 FRAME: 0354

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## 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:	September 9, 2008	
То:	ASSIGNMENT RECORDATION SERVICES United States Patent and Trademark Office	
Facsimile No.	1-571-273-0140	
From:	Joy Marshall	
Re:	U.S. Application No. 11/661,577 Our Reference No.: PP 023466.0004	
Message:	Attached please find the following documents:	
	<ol> <li>Form PTO-1595</li> <li>Name Change Document (6 pages); and</li> <li>DUPLICATE COPY: Form PTO-1595         <ul> <li>(for payment by Deposit Account No. 03-1664)</li> </ul> </li> </ol>	

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

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(Rev. 07/05) <u>OMB No. 0651-0027 (exp. 6/30/2008)</u>			U.S. Patent and Trademark
			Atty Docket No.: PP023466.000
To the Director of Paten	ts and Trademarks: Please re	cord the attached origina	I documents or copy thereof.
1. Name of conveying party(ies):		<ol> <li>Name and address Name;</li> </ol>	of receiving party(ies)
David Chien		Name.	
Doris Coit		NOVARTIS VAC	CINES AND DIAGNOSTICS,
Carlos George-Nascimento Sansan Lin		4560 Horton Str	-
Angelica Medina-Selby		Emeryville, CA	
Laura Tandeske			34000-2310
		Other	
Additional name(s) of conveying party(i	es) attached? 🗋 Yes 🖾 No		
<ol><li>Nature of conveyance:</li></ol>			
-	-	Additional name(s)	& address(es) attached? 🗔 Yes 🛛
🖾 Assignment			
Security Agreement	Change of Name		
🛛 Joint Research Agreement	Other		
Government Interest Assignment			
Execution Date(s): 3/07/08, 03/06/08	. 3/08/08, 3/07/08.		
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U.S. Application No.: 11/ Filing Date: March 17, 20			
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<ul> <li>concerning document should be many concerning document should be many corporate intellectual Propert P.O. Box 8097</li> <li>Emeryville, CA 94662-8097</li> <li>9. Statement and signature: To the best of my knowledge and but should be many concerning the statement between the should be many concerning the statement between the should be many concerning the should be should be many concerning the should be should be many concerning th</li></ul>	iiled: IAGNOSTICS, INC. y - R338 DO NOT USE	<ol> <li>Total fee (37 CFR 3</li> <li>Enclosed</li> <li>Authorized to be</li> <li>Deposit account nur</li> <li>(Attach duplicate copy of THIS SPACE</li> </ol>	41) <b>\$40.00</b> charged to deposit account nber: <b>03-1664</b>
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Joy marshall	September 9 2008
Joy Marshall	
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