PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:		NEW ASSIGNMENT	
NATURE OF CONVE	YANCE:	ASSIGNMENT	
CONVEYING PARTY	DATA	IL	
		Name	ecution Date
Emma Michelle CAM	PBELL	09/14/	
Sofia PARVEEN		09/14/	
Joe BUECHLER		09/11/	
Gunars VALKIRS		09/11/	2006
	DATA		
Name:		0	
Street Address:	Lichtstrasse		
City:	Basel		
State/Country:	SWITZERLA		
Postal Code:	4056		
PROPERTY NUMBER	RS Total: 1		
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]	Number 12091020	
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ASSIGNMENT

For good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, we

Emma Michelle CAMPBELL	citizen of Great Britain	Novartis Horsham Research Centre Wimblehurst Road Horsham, West Sussex RH12 5AB GB
Solia PARVEEN	citizen of Great Britain	Novartis Horsham Research Centre Wimblehurst Roed Horsham, West Sussex RH12 5AB GB
Joe BUECHLER	citizen of United States Of America	1343 Cassins Street Carlsbad, CA 92011 US
Gunars VALKIRS	cilizen of United States Of America	2893 Paseo Del Sol Escondido, CA 92025 US

do hereby sell, assign and transfer to Novartis AG, a company organized under the laws of the Swiss Confederation, of Lichtstrasse 35, 4056 Basel, Switzerland, and its successors, assigns and legal representatives, all our right, title and interest for all countries of the world except Austria and to Novartis Pharma GmbH, a company organized under the laws of Austria, of Brunner Strasse 59, 1230 Vienna, Austria, and its successors, assigns and legal representatives, all our right, title and interest for Austria (Novartis AG and Novartis Pharma GmbH hereinafter referred to collectively as the "ASSIGNEES") in and to (1) all of our inventions and discoveries described in the patent application(s) entitled

ORGANIC MOLECULES

filed* in the RO/ ___, 20____, and accorded International Patent Application. 00 Number PCT ., (2) said patent application(s), (3) (3) all national stages of said international patent application, (4) all other patent applications in all countries and regions claiming the priority of the Great Britain, patent application filed on October 21, 2005 and accorded Application Number 0521509.0, and the Great Britain, patent application filed on August 22, 2006 and accorded Application Number 0616666.4, (5) all continuations and divisions of all of said patent applications (including further continuations and divisions such as, but not limited to, continuations of continuations and continuations of divisions), ((2)-(5) hereinafter referred to collectively as "patent applications"), (6) all patents that are granted on any of said patent applications, (7) all registrations and confirmations of, and importation certificates based on, one or more of said patents and (8) all relesues, renewals and extensions of said patents, reexamination contificates issued for said patents and supplementary protection certificates based on said patents (including the right to file patent applications on said inventions and discoveries in the names of ASSIGNEES, their designees or in any or all of our names, at their election and in accordance with applicable law in all countries and regions and all rights of priority in all countries and regions for all of said patent applications under the International Convention for the Protection of Industrial Property, and all other applicable similar international agreements), the same to be held and enjoyed by said ASSIGNEES, their successors, assigns and legal representatives, to the full ends of the terms for which all patents therefor may be granted, as fully and entirely as the same would have been held and enjoyed by us if this sale, assignment and transfer had not been made.

PATENT REEL: 025719 FRAME: 0419

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*We hereby authorize ASSIGNEES and their representatives to insert in this instrument the Application Number and the filing date of said patent application when notified thereof.

And we hereby covenant and agree that we will, at any time, upon the request and at the expense of ASSIGNEES, execute and deliver all documents that may be necessary or desirable to perfect the title to the foregoing inventions and discoveries, patent applications, patents, registrations, confirmations, importation certificates in ASSIGNEES, their successors, assigns or other legal representatives, including the execution and procurement of all further documents evidencing this sale, assignment and transfer as may be necessary or desirable for recording the same in the patent office or other intellectual property office, agency or the like of any country or region, that we will, at any time, upon the request and at the expense of ASSIGNEES, execute all additional patent applications, applications for registration and/or confirmation of one or more of said patents, applications for certificates of importation based on one or more of said patents, applications for recording the same of one or more of said patents and supplemental protection certificates based upon one or more of said patents, and that we will make all rightful oaths and declarations and do all lawful acts requisite for procuring the same or for aiding therein, without further compensation, but at the expense of ASSIGNEES, the successors, assigns or other legal representatives.

Executed thi	s <u>/4</u>	day of	Seelenber	.2006
Enna	Mich	elle	Caupell	L.S.

Emma Michelle CAMPBELL

ACKNOWLEDGEMENT

State of ______) s.s.:

County of _____

On this ______ day of ______, 20____, personally appeared before me to me known, and known by me to be the same person described in and who executed the foregoing instrument, and acknowledged that he (she) executed the same, of his (her) own free will for the purpose set forth.

(Seal)

Notary Public

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Executed this 14 day of September	_ 20_06_
Sha Panuanananananananananananananananananan	18
Sólia PARVEEN	

ACKNOWLEDGEMENT

State of	
) s.s.:
County of)

On this ______ day of ______, 20____, personally appeared before me to me known, and known by me to be the same person described in and

who executed the foregoing instrument, and acknowledged that he (she) executed the same, of his (her) own free will for the purpose set forth.

(Seal)

	Notary Public
	*
Executed this day of	²⁰
	L.S.
Joe BUECHLER	
ACKNOWLEDGEMENT	
State of	
) 5.5.:	
County of)	
On this day of	, 20, personally appeared before me
to me know who executed the foregoing instrument, and own free will for the purpose set forth.	m, and known by me to be the same person described in and I acknowledged that he (she) executed the same, of his (her)

(Seal)

Notary Public

PATENT REEL: 025719 FRAME: 0421

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ACCEPTANCE OF ASSIGNMENT

With reference to the Assignment to NOVARTIS AG of an invention entitled "<u>ORGANIC</u> <u>MOLECULES</u>" signed by <u>Emma Michelle CAMPBELL, Sofia PARVEEN, Joe BUECHLER and</u> <u>Gunars VALKIRS</u>; this will certify that NOVARTIS AG accepts such Assignment.

NOVARTIS AG

By :

C. Rubdmen

Name :

Function : Administrative Professional

25,09,2006

Ella Rutschmann

Date:

Biljana Colovic Head of Foreign Filing

PATENT REEL: 025719 FRAME: 0423

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ASSIGNMENT

For good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, we

mma Michelle CAMPBELL	cilizen of Great Britain	Novartis Horsham Research Centre Wimblehurst Road Horsham, West Sussex RH12 5AB GB
Sofia PARVEEN	citizen of Great Britain	Novariis Horsham Research Centre Wimblehurst Road Horsham, West Sussex RH12 5AB GB
Joe BUECHLER	citizen of United States Of America	1343 Cassins Street Carlsbad, CA 92011 US
Gunars VALKIRS	citizen of United States Of America	2893 Paseo Del Sol Escondido, CA 92025 US

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ORGANIC MOLECULES

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PATENT REEL: 025719 FRAME: 0424

"We hereby authorize ASSIGNEES and their representatives to insert in this instrument the Application Number and the filing date of said patent application when notified thereof.

And we hereby covenant and agree that we will, at any time, upon the request and at the expense of ASSIGNEES, execute and deliver all documents that may be necessary or desirable to perfect the title to the foregoing inventions and discoveries, patent applications, patents, registrations, confirmations, importation certificates, relasues, renewals, extensions, reexamination certificates and supplementary protection certificates in ASSIGNEES, their successors, assigns or other legal representatives, including the execution and procurement of all turther documents evidencing this sale, assignment and transfer as may be necessary or desirable for recording the same in the patent office or other intellectual property office, agency or the like of any country or region, that we will, at any time, upon the request and at the expense of ASSIGNEES, execute all additional patent applications, applications for registration and/or confirmation of one or more of said patents, applications for certificates of importation based on one or more of said patents, applications for reissues, renewals and extensions of one or more of said patents and supplemental protection certificates based upon one or more of said patents, and that we will make all rightful oaths and declarations end do all lawful acts requisite for procuring the same or for aiding therein, without further compensation, but at the expense of ASSIGNEES, the successors, assigns or other legal representatives.

Executed this	day of		20	
			L.S.	
Emma Michelle	CAMPBELL			
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ACKNOWLEDG	ement			
State of				
\$) s.s.:		
County of)		
On this	day of		, 20	_, persor

On this ______day of ______, 20____, personally appeared before me to me known, and known by me to be the same person described in and who executed the foregoing instrument, and acknowledged that he (she) executed the same, of his (her) own free will for the purpose set forth.

(Seal)

Notary Public

PATENT REEL: 025719 FRAME: 0425

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Case 34582	3
Executed this day of	20 L.S.
Sofia PARVEEN	Lo (2)
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to me kno who executed the foregoing instrument, an	, 20, personally appeared before me twn, and known by me to be the same person described in a ind acknowledged that he (she) executed the same, of his (f
own free will for the purpose set forth. (Seal)	
•	Notary Public
Executed this 1 day of <u>Spkmb</u>	
JON FUECHLER	<u>ur, 20 de</u> .
Joo FUECHLER	<u></u>
Joe GUECHLER ACKNOWLEDGEMENT State of <u>California</u>)s.s.: County of <u>San</u> Diego) On this <u>11th</u> day of <u>September</u>	<u></u>

PATENT REEL: 025719 FRAME: 0426

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	Executed this 11 day of Sept. 20,06 A Z J LS. Gunars VALKIRS	
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ACCEPTANCE OF ASSIGNMENT

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NOVARTIS AG

By:

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Rubch

Ella Rutschmann

3. Car-

Name :

Function:

Administrative Professional

25,09,2006

Biljana Colovic

Head of Foreign Filing

Date:

PATENT REEL: 025719 FRAME: 0428

Attestation

I, the undersigned notary public of Basel, Switzerland, certify herewith the authenticity of the signatures of **Mrs. Sofia Parveen**, British citizen, born on the first day of September in the year 1971, working at Novartis Horsham Research Centre in Horsham, Great Britain, and of **Mrs. Emma Michelle Campbell**, British citizen, born on the ninth day of June in the year 1970; working at Novartis Horsham Research Centre in Horsham, Great Britain.

I further certify that the above signatures are the genuine signatures of Mrs. Biljana Colovic, citizen of Serbia, residing in Basel, Switzerland, and Mrs. Ella Rutschmann, citizen of Lotzwil/BE, Switzerland, residing in Basel, Switzerland, both acting for Novartis AG, in Basel, Switzerland, both as proxy holders, both with joint signature.

The authenticity of the signatures was established by comparison.

BASEL, this 28th (twenty-eigth) day of September 2006 (twothousandandsix)

M. Stacher, Noter

Leg. Prot. Nr. 1251 /2006

RECORDED: 01/31/2011