PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
STEFANIE FLOHR	04/25/2013
ULRICH HOMMEL	04/29/2013
EDWIGE LILIANE JEANNE LORTHIOIS	04/29/2013
JUERGEN KLAUS MAIBAUM	04/30/2013
NILS OSTERMANN	06/03/2013
ANNA VULPETTI	06/04/2013

RECEIVING PARTY DATA

Name:	NOVARTIS PHARMA AG
Street Address:	LICHTSTRASSE 35
City:	BASEL
State/Country:	SWITZERLAND
Postal Code:	4056

PROPERTY NUMBERS Total: 1

Property Type	Number	
Application Number:	14409878	

CORRESPONDENCE DATA

Fax Number:

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 6178717967

Email: katie.drury@novartis.com
Correspondent Name: KATHLEEN M. DRURY
Address Line 1: 700 MAIN STREET

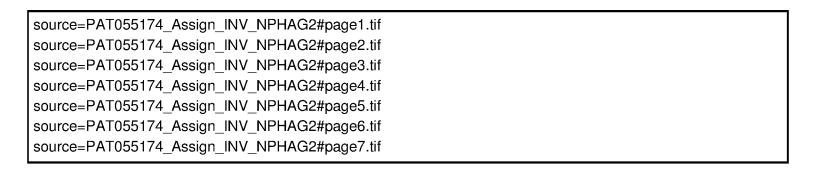
Address Line 4: CAMBRIDGE, MASSACHUSETTS 02139

ATTORNEY DOCKET NUMBER:	PAT055174-US-PCT
NAME OF SUBMITTER:	KATHLEEN M. DRURY
SIGNATURE:	/Kathleen M. Drury/
DATE SIGNED:	04/13/2016

Total Attachments: 7

PATENT REEL: 038273 FRAME: 0513

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PATENT REEL: 038273 FRAME: 0514



ASSIGNMENT

This Assignment Agreement is entered into by and between

Stefanie FLOHR	citizen of Germany	Novartis Pharma AG	
		Postfach	
		4002 Basel	
		Switzerland	
Ulrich HOMMEL	citizen of Germany	Novartis Pharma AG	
		Postfach	
		4002 Basel	
		Switzerland	
Edwige Liliane Jeanne	citizen of France	Novartis Pharma AG	
LORTHIOIS		Postfach	
		4002 Basel	
₹ ₆		Switzerland	
Juergen Klaus MAIBAUM	citizen of Germany	Novartis Pharma AG	بنبنب
		Postfach	
		4002 Basel	
		СН	
Nils OSTERMANN	citizen of Germany	Novartis Pharma AG	
		Postfach	
		4002 Basel	
		CH	
Stefan Andreas RANDL	citizen of Germany	Seibelstrasse 33	
		60385 Frankfurt am Main	
		Germany	
Olivier ROGEL	citizen of France	Novartis Pharma AG	
(DECEASED)		Postfach	
		4002 Basel	
		SWITZERLAND	
Anna VULPETTI	citizen of Italy	Novartis Pharma AG	
		Postfach	
		4002 Basel	
		CH	

(hereinafter "Inventor(s)"), and NOVARTIS PHARMA AG, Lichtstrasse 35,4056 Basel, Switzerland, a company organized under the laws of Switzerland.

PATENT REEL: 038273 FRAME: 0515 For good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, I/We the Inventor(s) do hereby confirm and agree that, by operation of law and/or contract, and/or by the fulfillment of any and all legal requirements regarding the transfer of employee inventions in my/our country of employment, NOVARTIS PHARMA AG is the true and lawful owner of all right, title and interest in all inventions, discoveries, patents/utility models, applications, and rights described in paragraphs (1) through (8) below.

If, however, under the laws of any country, I/We the Inventor(s) nevertheless have any ownership right, title or interest in any of the items described herein (which I/We do not believe to be the case and make no claim in or to), for good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, I/We the Inventor(s) do hereby sell, assign and transfer to NOVARTIS PHARMA AG and its successors, assigns and legal representatives (hereinafter referred to collectively as the "ASSIGNEE"), all of our right, title and interest for all countries of the world in and to

(1) all of our inventions and discoveries described in the provisional or non-provisional patent, utility model, or other application(s) entitled

Complement pathway modulators and uses thereof [Patent Application PAT055174]

and filed in the		Office on	, 20 and accorded	
Application Number _		and/or filed as a PCT In	nternational Application on	
····	20 and accord	ed International Pate	nt Application Number	
PCT/			tent and Trademark Office	
on March 7, 2013 and accorded Application Number 61/774,246;				

- (2) the application(s) identified in paragraph (1), and all applications claiming priority from such application(s), directly or indirectly, including all national stages of any international patent application(s);
- (3) the right to file patent, utility model, or other applications on any invention or discovery disclosed in any of the applications identified in paragraphs (1) and (2), including the right to file such applications on said inventions and discoveries in the names of ASSIGNEE or their designees or in our/my name, at ASSIGNEE's election and in accordance with applicable law in all countries and regions; and the right to file all patent, utility model, or other applications in all countries and regions claiming the priority of any of the provisional or non-provisional application(s) identified in paragraphs (1) or (2);
- (4) all rights to claim priority from any of the applications referred to in paragraphs (1), (2), and (3) or from any application from which any of the applications referred to in paragraphs (1), (2) and (3) claim priority in all countries and regions under the Paris Convention for the Protection of Industrial Property, the WTO GATT TRIPS Agreement, the Inter-American Convention relating to Inventions, Patents, Designs, and Industrial Models and all other international agreements to which the United States now is or hereafter becomes a signatory and, if the United States patent application is a provisional patent application, under 35 USC 119(e);

- (5) all continuations, continuations-in-part, and divisionals of any United States patent application(s) or international patent application(s) designating the United States, any national stages of any international application(s), and any other patent application(s) described in paragraphs (1) through (4) hereof, including further continuations, continuations-in-part, and divisionals such as, but not limited to, continuations of continuations and continuations of divisionals;
- (6) all patents, utility models, or other grants that issue from any of the applications referred to herein and all rights and remedies associated therewith including the right to sue for and recover past damages and to recover under 35 U.S.C. § 154 (d) or any other law permitting remedies for infringement prior to issuance of the patent;
- (7) all registrations and confirmations of, and importation certificates based upon, one or more of said patents, utility models, or other grants, and applications for such registrations, confirmations and importation certificates and;
- (8) all reissues, renewals and extensions of said patents, utility models, registrations, confirmations and importation certificates, reexamination certificates issued for said patents and supplementary protection certificates based upon said patents and applications for such reissues, renewals, extensions, reexamination certificates and supplementary protection certificates, the same to be held and enjoyed by said ASSIGNEE to the full ends of the terms for which said patents, utility models, registrations, confirmations, importation certificates, reexamination certificates, supplementary protection certificates, reissues, renewals and extensions may be granted, as fully and entirely as the same would have been held and enjoyed by me/us if this sale, assignment and transfer had not been made.

I/We the Inventor(s) hereby authorize ASSIGNEE and their representatives to insert in paragraph (1) of this Assignment the filing date(s) and Application Number(s) of said patent, utility model, or other application(s) when notified thereof.

I/We the Inventor(s) hereby covenant and agree that I/We will, at any time, (i) upon the request, but at the expense, of ASSIGNEE, execute and deliver all documents that may be necessary or desirable to perfect the title to the foregoing inventions and discoveries, applications, patents, utility models, registrations, confirmations, importation certificates, reissues, renewals, extensions, reexamination certificates, supplementary protection certificates, and applications within the scope of (7) and (8), in ASSIGNEE, 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, (ii) upon the request, but at the expense, of ASSIGNEE execute all additional applications within the scope of paragraphs (1) through (6) and all applications within the scope of (7) or (8), and (iii) 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 ASSIGNEE.

Should any provision of this Assignment be deemed invalid or unenforceable by reason of any law, statute, regulation or judgment, existing now or in the future in any jurisdiction, such

PATENT REEL: 038273 FRAME: 0517 provision shall be modified in such jurisdiction so as to nearly approximate the intent of the Parties. If this cannot be done, such invalid or unenforceable provision shall be divisible and be deleted in any such jurisdiction, and all other provisions shall remain in full force and effect. The modification or deletion of any provision in one jurisdiction shall have no effect on this Assignment in any other jurisdiction.

This Assignment is effective as from the earliest priority date as stated above.
This Assignment is effective as from the earliest priority date as stated above. Executed this 25 day of 3, 2013
BY <u>Slefanse Hot</u> L.S. Stefanie FLOHR
Executed this 29 day of a full, 20/3.
BY L.S. Ulrich HOMMEL
Executed this 24 day of April 20 12.
BY Ederge Callions L.S.
Edwige Liliane Jeahne LORTHIOIS

Executed this	30_day of _	Apol	, 20
BY	MAIBAUM	Market	L.S.
	,	Jnne	
BY/ Nils OSTERM	1.4 Clfgs IANN		L.S.
Executed this	day of _		, 20
BY Stefan Andrea	s RANDL		L.S.
Executed this	day of _		, 20
BY Veronique State for Olivier R	rk-Rogel (legal OGEL (decease	representative)	L.S.
		June	
BY UNI	13 Valpe	X	L.s.

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NOVARTIS PHARMA AG

Authorized signatory

Executed	l this	day of	7000	, 20 ≦
BY			Michigan Resident Resident	L.S
Name: Title:		e Zeller d signatory		
BY	×31/2/2	19 ⁴ 1		L.S
Name: 💃 Title:	Macrose ?	AR - WOLLD	RESON	

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ATTESTATION

I, the undersigned Civil Law Notary in Basel, Switzerland, Dr. Conradin Cramer, certify herewith that the signatures heretofore are the genuine signatures of Ms. Stefanie Flohr, German citizen, residing in Reinach, Switzerland; of Mr. Ulrich Hommel, German citizen, residing in Müllheim, Germany; of Ms. Edwige Liliane Jeanne Lorthiois, French citizen, residing in Niffer, France; of Mr. Jürgen Klaus Maibaum, German citizen, residing in Weil am Rhein, Germany; of Mr. Nils Ostermann, German citizen, residing in Binzen, Germany; and of Ms. Anna Vulpetti, Italian citizen, residing in Basel, Switzerland.

I further certify herewith that the signatures attached heretofore are the genuine signatures of Ms. Sabine Zeller, citizen of Ormalingen, Switzerland, residing in Celterkinden, Switzerland; and of Ms. Simone Poiron-Malton, British citizen, residing in a ssingue, France; both acting for Novartis Pharma AG, in Basel, Switzerland, both as proxy holders and both with joint signature.

The authenticity of the signatures was established by means of comparison.

BASEL, Switzerland, this 11th (eleventh) day of June 2013 (two thousand and thirteen)

Dr. C. Cramer Noter

colones, Mass

Leg.Prot.Nr. 5 6/2013

PATENT REEL: 038273 FRAME: 0521

RECORDED: 04/13/2016