

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT4888625

SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	ASSIGNMENT	
CONVEYING PARTY DATA		
	Name	Execution Date
	NOVARTIS PHARMA AG	08/31/2015
RECEIVING PARTY DATA		
Name:	NOVARTIS AG	
Street Address:	LICHTSTRASSE 35	
City:	BASEL	
State/Country:	SWITZERLAND	
Postal Code:	4056	
PROPERTY NUMBERS Total: 1		
	Property Type	Number
	Application Number:	15510414
CORRESPONDENCE DATA		
Fax Number:		
<i>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.</i>		
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Correspondent Name:	AMY OLINGER	
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ATTORNEY DOCKET NUMBER:	PAT057061-US-PCT	
NAME OF SUBMITTER:	AMY OLINGER	
SIGNATURE:	/Amy Olinger/	
DATE SIGNED:	03/28/2018	
Total Attachments: 4		
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ASSIGNMENT

This Assignment Agreement is entered into by and between **Novartis Pharma AG**, a company incorporated in Switzerland whose address is Lichtstrasse 35, 4056 Basel, Switzerland, and **NOVARTIS AG**, a company incorporated in Switzerland whose address is Lichtstrasse 35, 4056 Basel, Switzerland.

For good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, **Novartis Pharma AG** does hereby sell, assign and transfer to **NOVARTIS AG** and its successors, assigns and legal representatives (hereinafter referred to collectively as the "ASSIGNEE"), all of its right, title and interest for all countries of the world in and to all inventions, discoveries, patents/utility models, applications, and rights described in paragraphs (1) through (8) below.

(1) all of our inventions and discoveries described in the provisional applications entitled

COMBINATION THERAPIES

filed in the United States Patent and Trademark Office on September 13, 2014 and accorded Application Number 62/050,116;

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filed in the United States Patent and Trademark Office on October 3, 2014 and accorded Application Number 62/059,788; and

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filed in the United States Patent and Trademark Office on February 20, 2015 and accorded Application Number 62/119,060;

(2) the applications identified in paragraph (1), and all applications claiming priority from such applications, directly or indirectly, including all national stages of any international patent applications;

(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 on behalf or in the name(s) of the inventor(s) of said inventions and discoveries, 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 applications 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 applications or international patent application(s) designating the United States, any national stages of any international applications, and any other patent applications 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 Novartis Pharma AG if this sale, assignment and transfer had not been made.

Novartis Pharma AG hereby covenants and agrees that it will, at any time, (i) request, but at the expense, of ASSIGNEE, execute and deliver all documents that may necessary or desirable to perfect the title to the foregoing inventions and discoveries, applications, patents, utility models, registrations, confirmations, importation reissues, renewals, extensions, reexamination certificates, supplementary protection and applications within the scope of (7) and (8), in ASSIGNEE, including the execution procurement of all further documents evidencing this sale, assignment and transfer as necessary or desirable for recording the same in the patent office or other intellectual office, agency or the like of any country or region, (ii) upon the request, but at the ASSIGNEE execute all additional applications within the scope of paragraphs (1) 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, 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 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 shall be governed by the laws of Switzerland.

This Assignment is effective as from the earliest priority date as stated above.

Novartis Pharma AG

Executed this 31st day of August, 2015

BY [Signature] L.S.
Name: Christian Petersen
Title: Authorized Signatory

Witnessed by:

<u>[Signature]</u>	<u>[Signature]</u>
Name: Maria J. Franco Martins	Name: Silvia Aregger
Address: Lichtstrasse 35	Address: Lichtstrasse 35
4056 Basel	4056 Basel
Switzerland	Switzerland

BY [Signature] L.S.
Name: [Signature]
Title: Authorized Signatory

Witnessed by:

<u>[Signature]</u>	<u>[Signature]</u>
Name: Maria J. Franco Martins	Name: Silvia Aregger
Address: Lichtstrasse 35	Address: Lichtstrasse 35
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Switzerland	Switzerland

NOVARTIS AG

Executed this 31st day of August, 2015

BY [Signature] L.S.
Name: Ute Hillebrand
Title: Authorized Signatory

Witnessed by:

<u>[Signature]</u>	<u>[Signature]</u>
Name: Maria J. Franco Martins	Name: Silvia Aregger
Address: Lichtstrasse 35	Address: Lichtstrasse 35
4056 Basel	4056 Basel
Switzerland	Switzerland

BY [Signature] L.S.
Name: GUILLAUME CECILIA
Title: Authorized Signatory

Witnessed by:

<u>[Signature]</u>	<u>[Signature]</u>
Name: Maria J. Franco Martins	Name: Silvia Aregger
Address: Lichtstrasse 35	Address: Lichtstrasse 35
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Switzerland	Switzerland

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