

PATENT ASSIGNMENT COVER SHEET

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 Stylesheet Version v1.2

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
ZHUOLIANG CHEN	04/19/2017
JORGE GARCIA FORTANET	03/28/2017
RAJESH KARKI	04/20/2017
MATTHEW J. LAMARCHE	04/19/2017
DYUTI MAJUMDAR	04/19/2017
LAWRENCE BLAS PEREZ	03/31/2017
MARTIN SENDZIK	04/19/2017
TROY DOUGLAS SMITH	04/19/2017
FAN YANG	04/19/2017
BING YU	04/19/2017
RECEIVING PARTY DATA	
Name:	NOVARTIS INSTITUTES FOR BIOMEDICAL RESEARCH, INC.
Street Address:	250 MASSACHUSETTS AVENUE
City:	CAMBRIDGE
State/Country:	MASSACHUSETTS
Postal Code:	02139
PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	17130374
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>	
Email:	gaby.martinez@novartis.com
Correspondent Name:	GABY MARTINEZ
Address Line 1:	700 MAIN STREET
Address Line 4:	CAMBRIDGE, MASSACHUSETTS 02139
ATTORNEY DOCKET NUMBER:	PAT057289-US-DIV
NAME OF SUBMITTER:	GABY MARTINEZ

SIGNATURE:	/Gaby Martinez/
DATE SIGNED:	07/20/2022
Total Attachments: 24 source=PAT057289-US-PSP assg iinventors to NIBR#page1.tif source=PAT057289-US-PSP assg iinventors to NIBR#page2.tif source=PAT057289-US-PSP assg iinventors to NIBR#page3.tif source=PAT057289-US-PSP assg iinventors to NIBR#page4.tif source=PAT057289-US-PSP assg iinventors to NIBR#page5.tif source=PAT057289-US-PSP assg iinventors to NIBR#page6.tif source=PAT057289-US-PSP assg iinventors to NIBR#page7.tif source=PAT057289-US-PSP assg iinventors to NIBR#page8.tif source=PAT057289-US-PSP assg iinventors to NIBR#page9.tif source=PAT057289-US-PSP assg iinventors to NIBR#page10.tif source=PAT057289-US-PSP assg iinventors to NIBR#page11.tif source=PAT057289-US-PSP assg iinventors to NIBR#page12.tif source=PAT057289-US-PSP assg iinventors to NIBR#page13.tif source=PAT057289-US-PSP assg iinventors to NIBR#page14.tif source=PAT057289-US-PSP assg iinventors to NIBR#page15.tif source=PAT057289-US-PSP assg iinventors to NIBR#page16.tif source=PAT057289-US-PSP assg iinventors to NIBR#page17.tif source=PAT057289-US-PSP assg iinventors to NIBR#page18.tif source=PAT057289-US-PSP assg iinventors to NIBR#page19.tif source=PAT057289-US-PSP assg iinventors to NIBR#page20.tif source=PAT057289-US-PSP assg iinventors to NIBR#page21.tif source=PAT057289-US-PSP assg iinventors to NIBR#page22.tif source=PAT057289-US-PSP assg iinventors to NIBR#page23.tif source=PAT057289-US-PSP assg iinventors to NIBR#page24.tif	

ASSIGNMENT

This Assignment Agreement is entered into by and between

ZHUOLIANG CHEN, c/o NOVARTIS INSTITUTES FOR BIOMEDICAL RESEARCH, INC., 250 MASSACHUSETTS AVENUE, CAMBRIDGE, MASSACHUSETTS 02139 US, a citizen of CHINA

JORGE GARCIA FORTANET, c/o 69 MIDDLESEX AVENUE, WILMINGTON, MASSACHUSETTS 01887 US, a citizen of SPAIN;

RAJESH KARKI, c/o NOVARTIS INSTITUTES FOR BIOMEDICAL RESEARCH, INC., 250 MASSACHUSETTS AVENUE, CAMBRIDGE, MASSACHUSETTS 02139 US, a citizen of CANADA;

MATTHEW J. LAMARCHE, c/o NOVARTIS INSTITUTES FOR BIOMEDICAL RESEARCH, INC., 250 MASSACHUSETTS AVENUE, CAMBRIDGE, MASSACHUSETTS 02139 US, a citizen of UNITED STATES OF AMERICA;

DYUTI MAJUMDAR, c/o NOVARTIS INSTITUTES FOR BIOMEDICAL RESEARCH, INC., 250 MASSACHUSETTS AVENUE, CAMBRIDGE, MASSACHUSETTS 02139 US, a citizen of INDIA;

LAWRENCE BLAS PEREZ, c/o 1010 GUILLEMOT DRIVE, SILVER SPRING, MARYLAND 20906 US, a citizen of UNITED STATES OF AMERICA;

MARTIN SENDZIK, c/o NOVARTIS INSTITUTES FOR BIOMEDICAL RESEARCH, INC., 250 MASSACHUSETTS AVENUE, CAMBRIDGE, MASSACHUSETTS 02139 US, a citizen of GERMANY;

TROY DOUGLAS SMITH, c/o NOVARTIS INSTITUTES FOR BIOMEDICAL RESEARCH, INC., 250 MASSACHUSETTS AVENUE, CAMBRIDGE, MASSACHUSETT 02139 US, a citizen of UNITED STATES OF AMERICA;

FAN YANG, c/o NOVARTIS INSTITUTES FOR BIOMEDICAL RESEARCH, INC., 250 MASSACHUSETTS AVENUE, CAMBRIDGE, MASSACHUSETTS 02139 US, a citizen of UNITED STATES OF AMERICA;

BING YU, c/o NOVARTIS INSTITUTES FOR BIOMEDICAL RESEARCH, INC., 250 MASSACHUSETTS AVENUE, CAMBRIDGE, MASSACHUSETTS 02139 US, a citizen of CANADA;

(hereinafter "Inventor(s)"), and **NOVARTIS INSTITUTES FOR BIOMEDICAL RESEARCH, INC., 250 MASSACHUSETTS AVENUE, CAMBRIDGE, MASSACHUSETTS 02139 US, a company organized under the laws of THE STATE OF DELAWARE.**

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 INSTITUTES FOR BIOMEDICAL RESEARCH, INC. 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 INSTITUTES FOR BIOMEDICAL RESEARCH, INC. 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

ZWITTERION COMPOUNDS AND COMPOSITIONS FOR INHIBITING THE ACTIVITY OF SHP2

and filed in the United States Patent and Trademark Office on 14 Jun, 2016 and accorded Application Number 62/349697 and/or filed as a PCT International Application on _____ and accorded International Patent Application Number PCT/_____;

(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.

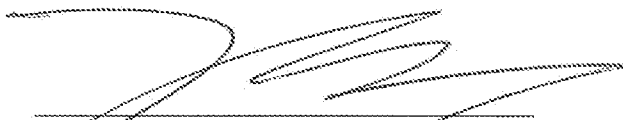
I/We the Inventor(s) hereby covenant and agree that I/We will, at any time, (i) upon the request, but at the expense, of ASSIGNEE, execute and deliver all documents that may be necessary or desirable to perfect the title to the foregoing inventions and discoveries, applications, patents, utility models, 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 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 law of the State of Delaware.

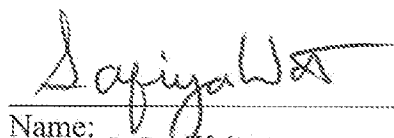
This Assignment is effective as from the earliest priority date as stated above.

Executed this 19th day of April, 2017.


ZHUOLIANG CHEN

Witnessed by:


Name: **Stephanie Geis**
Address: **700 Main Street
Cambridge, MA 02139**


Name: **Safiya Watson**
Address: **700 Main Street
Cambridge, MA 02139**

Executed this _____ day of _____, 20_____.

JORGE GARCIA FORTANET

Witnessed by:

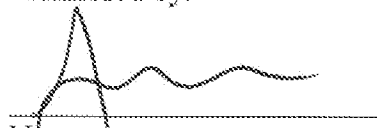
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Address:

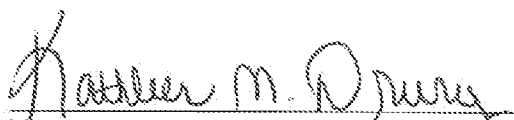
Name:
Address:

Executed this 20 day of April, 2017.


RAJESH KARKI

Witnessed by:


Name: Safiya Watson
Address: 700 Main Street
Cambridge, MA 02139



Name: Kathleen M. Drury
Address: 700 Main Street
Cambridge, MA 02139

Executed this 19 day of April, 2017.


MATTHEW S. LAMARCHE

Witnessed by:


Name: Stephanie Geis
Address: 700 Main Street
Cambridge, MA 02139



Name: Safiya Watson
Address: 700 Main Street
Cambridge, MA 02139

Executed this 19 day of April, 2017.


DYUTI MAJUMDAR

Witnessed by:


Name: Stephanie Geis
Address: 700 Main Street
Cambridge, MA 02139


Name: Safiya Watson
Address: 700 Main Street
Cambridge, MA 02139

Executed this _____ day of _____, 20____.

LAWRENCE BLAS PEREZ

Witnessed by:

Name:
Address:

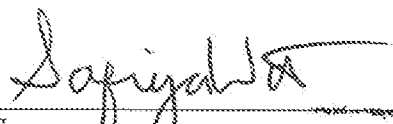
Name:
Address:

Executed this 19 day of April, 20 17.


MARTIN SENDZIK

Witnessed by:


Name: **Stephanie Geis**
Address: 700 Main Street
Cambridge, MA 02139

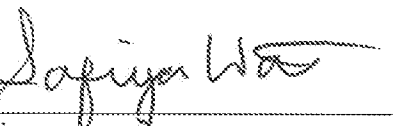

Name: **Safiya Watson**
Address: 700 Main Street
Cambridge, MA 02139

Executed this 19th day of April, 20 17.

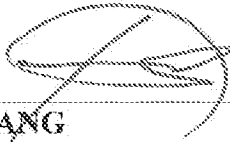

TROY DOUGLAS SMITH

Witnessed by:


Name: **Stephanie Geis**
Address: 700 Main Street
Cambridge, MA 02139

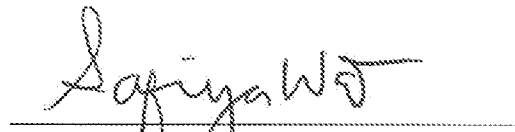

Name: **Safiya Watson**
Address: 700 Main Street
Cambridge, MA 02139

Executed this 19 day of April, 20 17.

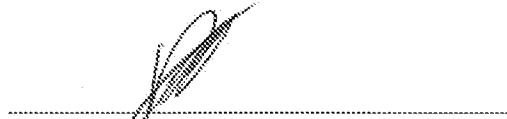

FAN YANG

Witnessed by:



Name: **Stephanie Geis**
Address: 700 Main Street
Cambridge, MA 02139

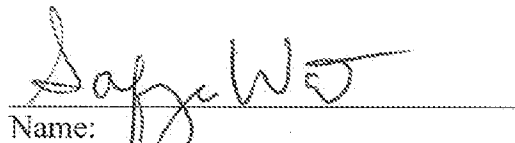

Name: **Safiya Watson**
Address: 700 Main Street
Cambridge, MA 02139

Executed this 19th day of April, 20 17.


BING YU

Witnessed by:


Name: **Stephanie Geis**
Address: 700 Main Street
Cambridge, MA 02139


Name: **Safiya Watson**
Address: 700 Main Street
Cambridge, MA 02139

NOVARTIS INSTITUTES FOR BIOMEDICAL RESEARCH, INC.

Executed this 21 day of April, 20 17.

BY

NAME:

Authorized Signatory

Witnessed by:

Name:

Address:

Safiya Watson
700 Main Street
Cambridge, MA 02139

Name:

Address:

Kathleen M. Drury
700 Main Street
Cambridge, MA 02139

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This Assignment Agreement is entered into by and between

ZHUOLIANG CHEN, c/o NOVARTIS INSTITUTES FOR BIOMEDICAL RESEARCH, INC., 250 MASSACHUSETTS AVENUE, CAMBRIDGE, MASSACHUSETTS 02139 US, a citizen of CHINA

JORGE GARCIA FORTANET, c/o 69 MIDDLESEX AVENUE, WILMINGTON, MASSACHUSETTS 01887 US, a citizen of SPAIN;

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(hereinafter "Inventor(s)"), and **NOVARTIS INSTITUTES FOR BIOMEDICAL RESEARCH, INC., 250 MASSACHUSETTS AVENUE, CAMBRIDGE, MASSACHUSETTS 02139 US, a company organized under the laws of THE STATE OF DELAWARE.**

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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 INSTITUTES FOR BIOMEDICAL RESEARCH, INC. 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

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and filed in the United States Patent and Trademark Office on 14 Jun, 2016 and accorded Application Number 62/349697 and/or filed as a PCT International Application on _____ and accorded International Patent Application Number PCT/_____;

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(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);

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(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.

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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.

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This Assignment shall be governed by the law of the State of Delaware.

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

Executed this _____ day of _____, 20____.

ZHUOLIANG CHEN

Witnessed by:

Name:
Address:


Name:
Address:

Executed this 28th day of March, 2017.

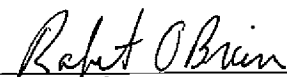


JORGE GARCIA FORTANET

Witnessed by:



Name: Thad Carlson
Address: 130 Park Ave Extension
Arlington MA 02474



Name: Robert O'Brien
Address: 14 Sawin Drive
Westminster MA 01473

Executed this _____ day of _____, 20____.

RAJESH KARKI

Witnessed by:

Name:
Address:

Name:
Address:

Executed this _____ day of _____, 20____.

MATTHEW J. LAMARCHE

Witnessed by:

Name:
Address:

Name:
Address:

Executed this _____ day of _____, 20____.

DYUTI MAJUMDAR

Witnessed by:

Name:
Address:

Name:
Address:

Executed this _____ day of _____, 20____.

LAWRENCE BLAS PEREZ

Witnessed by:

Name:
Address:

Name:
Address:

Executed this _____ day of _____, 20____.

MARTIN SENDZIK

Witnessed by:

Name:
Address:

Name:
Address:

Executed this _____ day of _____, 20____.

TROY DOUGLAS SMITH

Witnessed by:

Name:
Address:

Name:
Address:

Executed this _____ day of _____, 20____.

FAN YANG

Witnessed by:

Name:
Address:

Name:
Address:

Executed this _____ day of _____, 20____.

BING YU

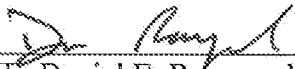
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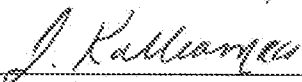
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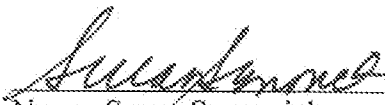
NOVARTIS INSTITUTES FOR BIOMEDICAL RESEARCH, INC.

Executed this 4th day of MAY, 2017.

BY 
NAME: Daniel E. Raymond
Authorized Signatory

Witnessed by:


Name: Jill Kalliomaa
Address: 10675 John Jay Hopkins Drive
San Diego, California 92121


Name: Susan Sesnovich
Address: 10675 John Jay Hopkins Drive
San Diego, California 92121

ASSIGNMENT

This Assignment Agreement is entered into by and between

ZHUOLIANG CHEN, c/o NOVARTIS INSTITUTES FOR BIOMEDICAL RESEARCH, INC., 250 MASSACHUSETTS AVENUE, CAMBRIDGE, MASSACHUSETTS 02139 US, a citizen of CHINA

JORGE GARCIA FORTANET, c/o 69 MIDDLESEX AVENUE, WILMINGTON, MASSACHUSETTS 01887 US, a citizen of SPAIN;

RAJESH KARKI, c/o NOVARTIS INSTITUTES FOR BIOMEDICAL RESEARCH, INC., 250 MASSACHUSETTS AVENUE, CAMBRIDGE, MASSACHUSETTS 02139 US, a citizen of CANADA;

MATTHEW J. LAMARCHE, c/o NOVARTIS INSTITUTES FOR BIOMEDICAL RESEARCH, INC., 250 MASSACHUSETTS AVENUE, CAMBRIDGE, MASSACHUSETTS 02139 US, a citizen of UNITED STATES OF AMERICA;

DYUTI MAJUMDAR, c/o NOVARTIS INSTITUTES FOR BIOMEDICAL RESEARCH, INC., 250 MASSACHUSETTS AVENUE, CAMBRIDGE, MASSACHUSETTS 02139 US, a citizen of INDIA;

LAWRENCE BLAS PEREZ, c/o 1010 GUILLEMOT DRIVE, SILVER SPRING, MARYLAND 20906 US, a citizen of UNITED STATES OF AMERICA;

MARTIN SENDZIK, c/o NOVARTIS INSTITUTES FOR BIOMEDICAL RESEARCH, INC., 250 MASSACHUSETTS AVENUE, CAMBRIDGE, MASSACHUSETTS 02139 US, a citizen of GERMANY;

TROY DOUGLAS SMITH, c/o NOVARTIS INSTITUTES FOR BIOMEDICAL RESEARCH, INC., 250 MASSACHUSETTS AVENUE, CAMBRIDGE, MASSACHUSETT 02139 US, a citizen of UNITED STATES OF AMERICA;

FAN YANG, c/o NOVARTIS INSTITUTES FOR BIOMEDICAL RESEARCH, INC., 250 MASSACHUSETTS AVENUE, CAMBRIDGE, MASSACHUSETTS 02139 US, a citizen of UNITED STATES OF AMERICA;

BING YU, c/o NOVARTIS INSTITUTES FOR BIOMEDICAL RESEARCH, INC., 250 MASSACHUSETTS AVENUE, CAMBRIDGE, MASSACHUSETTS 02139 US, a citizen of CANADA;

(hereinafter "Inventor(s)"), and **NOVARTIS INSTITUTES FOR BIOMEDICAL RESEARCH, INC., 250 MASSACHUSETTS AVENUE, CAMBRIDGE, MASSACHUSETTS 02139 US, a company organized under the laws of THE STATE OF DELAWARE.**

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 INSTITUTES FOR BIOMEDICAL RESEARCH, INC. 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 INSTITUTES FOR BIOMEDICAL RESEARCH, INC. 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

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and filed in the United States Patent and Trademark Office on 14 Jun, 2016 and accorded Application Number 62/349697 and/or filed as a PCT International Application on _____ and accorded International Patent Application Number PCT/_____;

(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 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 law of the State of Delaware.

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

Executed this _____ day of _____, 20_____.

ZHUOLIANG CHEN

Witnessed by:

Name:
Address:

Name:
Address:

Executed this _____ day of _____, 20_____.

JORGE GARCIA FORTANET

Witnessed by:

Name:
Address:

Name:
Address:

Executed this _____ day of _____, 20____.

RAJESH KARKI

Witnessed by:

Name:
Address:

Name:
Address:

Executed this _____ day of _____, 20____.

MATTHEW J. LAMARCHE

Witnessed by:

Name:
Address:

Name:
Address:

Executed this _____ day of _____, 20____.

DYUTI MAJUMDAR

Witnessed by:

Name:
Address:

Name:
Address:

Executed this 31st day of March, 2017.

Lawrence Blas Perez
LAWRENCE BLAS PEREZ

Witnessed by:

Rohit Tiwari
Name: Rohit Tiwari
Address: 501 College Parkway
Rockville, MD 20850

Friedrich N. Bunnett
Name: Friedrich N. Bunnett
Address: 4042 Canthage Rd.
Randallstown, MD 21133

Executed this 31st day of March, 2017.

MARTIN SENDZIK

Witnessed by:

Name:
Address:

Name:
Address:

Executed this _____ day of _____, 20____.

TROY DOUGLAS SMITH

Witnessed by:

Name:
Address:

Name:
Address:

Executed this _____ day of _____, 20____.

FAN YANG

Witnessed by:

Name:
Address:

Name:
Address:

Executed this _____ day of _____, 20____.

BING YU

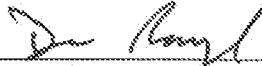
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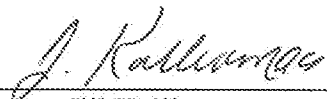
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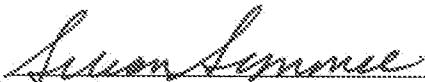
NOVARTIS INSTITUTES FOR BIOMEDICAL RESEARCH, INC.

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Authorized Signatory

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