506327139 10/28/2020

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
CELESTE RICHARDSON	07/13/2015
RESHMA SINGH	07/14/2015

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:	15689163	

CORRESPONDENCE DATA

Fax Number: (617)395-7070

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.

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Correspondent Name: LANDO & ANASTASI, LLP

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ATTORNEY DOCKET NUMBER:	N2067-704740	
NAME OF SUBMITTER: HANNAH R. KOYFMAN		
SIGNATURE: /Hannah R. Koyfman/		
DATE SIGNED: 10/28/2020		

Total Attachments: 6

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> PATENT REEL: 054202 FRAME: 0290

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PATENT REEL: 054202 FRAME: 0291

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ASSIGNMENT

WHEREAS, I, Celeste Richardson, a citizen of the United States of America, having a mailing address of Novartis Institutes for BioMedical Research, Inc., 220 Massachusetts Avenue, Cambridge, MA 02139, hereinafter generally referred to as "ASSIGNOR," have invented a certain new and useful

TREATMENT OF CANCER USING A CD33 CHIMERIC ANTIGEN RECEPTOR

for which we have filed a PCT International Application on July 21, 2014 and accorded
International Patent Application Number PCT/CN2014/082589;
and filed a PCT International Application on November 6, 2014 and accorded
International Patent Number PCT/CN2014/090504;
and/or filed a PCT International Application on July 21, 2015 and accorded
International Patent Application Number PCT/ <u>US2015/041390</u> ;
and/or filed in the United States Patent and Trademark Office onJuly 21,
20_15 and accorded Application Number14/805,236;

AND, I appoint, authorize and request the attorneys appointed in said application to hereafter complete this assignment by inserting in the spaces provided above the filing date and serial number of said application when known;

AND, WHEREAS, **Novartis Institutes for BioMedical Research, Inc.,** hereinafter referred to as the "ASSIGNEE", of 250 Massachusetts Avenue, Cambridge, MA 02139, a company organized by the laws of **Delaware**, is desirous of acquiring the entire right, title and interest in and to the said inventions or improvements and in and to the said application, and to any patent application(s) corresponding thereto, and in, to and under any and all Letters Patent which may be granted on or as a result thereof in any and all countries:

NOW, THEREFORE, for and in exchange for valuable consideration from the receipt of which is hereby acknowledged and intending to be bound, I, the said assignor, have sold, assigned, transferred and set over, effective as of the execution date of this assignment and by these presents do hereby sell, assign, transfer and set over to said assignee, the entire right, title and interest in and to said inventions or improvements and said provisional application and any and all corresponding patent application(s) and continuations, divisions and renewals of and substitutes for said corresponding patent application(s), and in, to and under any and all Letters Patent which may be granted on or as a result thereof in the United States and any and all other countries, and any reissue or reissues or extension or extensions of said Letters Patent, and assign to and authorize said assignee, to file in my name corresponding patent applications for Letters Patent in all countries, the same to be held and enjoyed by said assignee, its successors, assigns, nominees or legal representatives, to the full end of the term or terms for which said Letters Patent respectively may be granted, reissued or extended, as fully and entirely as the same would have been held and enjoyed by me had this assignment, sale and transfer not been made.

PATENT REEL: 054202 FRAME: 0292

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AND I hereby covenant that I have full right to convey the entire interest herein assigned, and that I have not executed and will not execute any agreement in conflict herewith, and I further covenant and agree that I will each time request is made and without undue delay, execute and deliver all such papers as may be necessary or desirable to perfect the title to said inventions or improvements, said application and said Letters Patent to said assignee, its successors, assigns, nominees or legal representatives, and I agree to communicate to said assignee, or to its nominee all known facts respecting said inventions or improvements, said application and said Letters Patent, to testify in any legal proceedings, to sign all lawful papers, to execute all disclaimers and divisional, continuing, reissue and foreign applications, to make all rightful oaths, and generally to do everything possible to aid said assignee, its successors, assigns, nominees and legal representatives to obtain and enforce for its or their own benefit proper patent protection for said inventions or improvements in any and all countries.

AND I hereby authorize and request the Commissioner of Patents and Trademarks of the United States and any official of any country or countries foreign to the United States whose duty it is to issue patents of applications as aforesaid, to issue to said assignee, as assignee of the entire right, title and interest, any and all Letters Patent for said inventions or improvements, including any and all Letters Patent of the United States which may be issued and granted on or as a result of the application aforesaid, in accordance with the terms of this assignment.

IN WITNESS WHEREOF, I have hereunto set my hand and seal.

Witness Signature:

Witness Printed Name

Safiya Watson

700 Main Street
Cambridge, MA 02139

Witness Printed Name:

Beth O'Brien

700 Main Street Cambridge, MA 02139

Attorney docket no.: N2067-7047 PAT056387

NOVARTIS INSTITUTES FOR BIOMEDICAL RESEARCH INC.

Executed this 1514 day of July , 2015.

Title: Authorized Signatory

Witnessed by:

Address:

B-** O'Brien

% dein Street Cambridge, MA 02139 Address:

Stephen Wolfolds

700 Main Street Cambridge, MA 02139

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ASSIGNMENT

WHEREAS, I, Reshma Singh, a citizen of the United States of America, having a mailing address of Novartis Institutes for BioMedical Research, Inc., 250 Massachusetts Avenue, Cambridge, MA 02139, hereinafter generally referred to as "ASSIGNOR," have invented a certain new and useful

TREATMENT OF CANCER USING A CD33 CHIMERIC ANTIGEN RECEPTOR

for which we have filed a PCT International Application on July 21, 2014 and accorded
International Patent Application Number PCT/CN2014/082589;
and filed a PCT International Application on November 6, 2014 and accorded
International Patent Number PCT/CN2014/090504;
and/or filed a PCT International Application on, 20 and accorded
International Patent Application Number PCT/
and/or filed in the United States Patent and Trademark Office on
20 and accorded Application Number :
AND, I appoint, authorize and request the attorneys appointed in said application
to hereafter complete this assignment by inserting in the spaces provided above the filing date and serial number of said application when known;

NOW, THEREFORE, for and in exchange for valuable consideration from the receipt of which is hereby acknowledged and intending to be bound, I, the said assignor, have sold, assigned, transferred and set over, effective as of the execution date of this assignment and by these presents do hereby sell, assign, transfer and set over to said assignee, the entire right, title and interest in and to said inventions or improvements and said provisional application and any and all corresponding patent application(s) and continuations, divisions and renewals of and substitutes for said corresponding patent application(s), and in, to and under any and all Letters Patent which may be granted on or as a result thereof in the United States and any and all other countries, and any reissue or reissues or extension or extensions of said Letters Patent, and assign to and authorize said assignee, to file in my name corresponding patent applications for Letters Patent in all countries, the same to be held and enjoyed by said assignee, its successors, assigns, nominees or legal representatives, to the full end of the term or terms for which said Letters Patent respectively may be granted, reissued or extended, as fully and entirely as the same would have been held and enjoyed by me had this assignment, sale and transfer not been made.

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Patent which may be granted on or as a result thereof in any and all countries:

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AND I hereby covenant that I have full right to convey the entire interest herein assigned, and that I have not executed and will not execute any agreement in conflict herewith, and I further covenant and agree that I will each time request is made and without undue delay, execute and deliver all such papers as may be necessary or desirable to perfect the title to said inventions or improvements, said application and said Letters Patent to said assignee, its successors, assigns, nominees or legal representatives, and I agree to communicate to said assignee, or to its nominee all known facts respecting said inventions or improvements, said application and said Letters Patent, to testify in any legal proceedings, to sign all lawful papers, to execute all disclaimers and divisional, continuing, reissue and foreign applications, to make all rightful oaths, and generally to do everything possible to aid said assignee, its successors, assigns, nominees and legal representatives to obtain and enforce for its or their own benefit proper patent protection for said inventions or improvements in any and all countries.

AND I hereby authorize and request the Commissioner of Patents and Trademarks of the United States and any official of any country or countries foreign to the United States whose duty it is to issue patents of applications as aforesaid, to issue to said assignee, as assignee of the entire right, title and interest, any and all Letters Patent for said inventions or improvements, including any and all Letters Patent of the United States which may be issued and granted on or as a result of the application aforesaid, in accordance with the terms of this assignment.

IN WITNESS WHEREOF, I have hereunto set my hand and seal.

July 14, 295		hace
Date	Reshi	ma Singh
/	H.	
Witness Signature:	6	Date: 7 14-15
Witness Printed Name:	Chastine Hordin	
	Chastine Hodyn 250 town file chamber of imac in Obur	PEIS
Witness Signature:	ich Obrum	Date: 7 14 15
Witness Printed Name:		

Beth O'Brien

700 Main Street Cambridge, MA 02139

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Novartis Institutes for BioMedical Research Inc.

Executed this 38^{44} day of $\sqrt{20100000}$, 20/7.

BY XALISEN YN DAUDY Name: KATHLEEN M DRURY

Title: Authorized Signatory

Witnessed by:

Name: Address:

Michaiah Copp 700 Main Street Cambridge, MA 02139 Name: Address:

Tara M. Melanson 700 Main Street Cambridge, MA 02139

Jan Wellison