505724657 10/16/2019 PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5771469

SUBMISSION TYPE:		NEW ASSIGNMENT		
NATURE OF CONVEYANCE:		ASSIGNMENT		
CONVEYING PARTY D	ΑΤΑ			
		Name	Execution Date	
CARLA GUIMARAES			08/13/2018	
RECEIVING PARTY DA				
Name:	NOVARTIS	NOVARTIS INSTITUTES FOR BIOMEDICAL RESEARCH, INC.		
Street Address:	250 MASSA	0 MASSACHUSETTS AVENUE		
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State/Country:	MASSACHU	ASSACHUSETTS		
Postal Code:	02139			
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PROPERTY NUMBERS	Total: 2			
Property Type		Number		
F.F		27402		
PCT Number:	US1	755627		
		395-7070		
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<u>ASSIGNMENT</u>

WHEREAS, I/we, Carla Guimaraes, a citizen of the United States of America, having a mailing address of Novartis Institutes for BioMedical Research, Inc., 250 Massachusetts AvenueCambridge, MA 02139 US, USA; hereinafter generally referred to as "ASSIGNOR," have invented a certain new and useful

TREATMENT OF CANCER USING CHIMERIC ANTIGEN RECEPTORS

filed in the United States Patent and Trademark Office on October 6, 2017 and accorded Patent Application No.: 15/727,402;

and filed as a PCT Application on October 6, 2017 and accorded International Application No.: PCT/US2017/055627;

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.

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,

Attorney Docket No. N2067-712110/WO (PAT057466) Assignment- Page 2 of 4

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.

Attorney Docket No. N2067-712110/WO (PAT057466) Assignment- Page 3 of 4

08/13/18 Date

Carla Guimardes

Witnessed by:

Name: Address:

Michaiah Copp 700 Main Street Cambridge, MA 02139

al a

Name: Address:

Tara M. Melanson 700 Main Street Cambridge, MA 02139

Attorney Docket No. N2067-712110/WO (PAT057466) Assignment- Page 4 of 4

Novartis Institutes for BioMedical Research Inc.

Executed this $\underline{/4^{+k}}$ day of $\underline{A06057}$, 20.18.

Β¥ L.S. Name: Kathleen M Drui Title: Authorized Signatory

Witnessed by:

Gan Alason

Name: Address:

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

Tara M. Melanson 700 Main Street Cambridge, MA 02139

RECORDED: 10/16/2019