05/11/2017 504363578

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
JOAN MANNICK	04/10/2015
DAVID GLASS	04/17/2015
LEON MURPHY	04/20/2015
JENNIFER BROGDON	04/10/2015
WILLIAM RAJ SELLERS	04/13/2015

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: 2

Property Type	Number
Application Number:	14680860
PCT Number:	US2015024671

CORRESPONDENCE DATA

Fax Number: (617)395-7000

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: 6173957000

Email: HRKPatents@lalaw.com **Correspondent Name:** LANDO & ANASTASI, LLP

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Address Line 2: **SUITE 1100**

Address Line 4: CAMBRIDGE, MASSACHUSETTS 02142

ATTORNEY DOCKET NUMBER:	N2067-705110/WO
NAME OF SUBMITTER:	HANNAH R. KOYFMAN
SIGNATURE:	/Hannah R. Koyfman/
DATE SIGNED:	05/11/2017

PATENT REEL: 042347 FRAME: 0402 504363578

Total Attachments: 7 source=N2067-705110_WO Invs to NIBR#page1.tif source=N2067-705110_WO Invs to NIBR#page2.tif source=N2067-705110_WO Invs to NIBR#page3.tif source=N2067-705110_WO Invs to NIBR#page4.tif source=N2067-705110_WO Invs to NIBR#page5.tif source=N2067-705110_WO Invs to NIBR#page6.tif source=N2067-705110_WO Invs to NIBR#page7.tif

PATENT REEL: 042347 FRAME: 0403

ASSIGNMENT

WHEREAS, We, Joan Mannick a citizen of The United States of America, having a mailing address of 220 Massachusetts Avenue, Cambridge, MA 02139; David Glass a citizen of The United States of America, having a mailing address of 100 Technology Square, Cambridge, MA 02139; Leon Murphy a citizen of The United States of America, having a mailing address of 250 Massachusetts Avenue, Cambridge, MA 02139; Jennifer Brogdon a citizen of The United States of America, having a mailing address of 250 Massachusetts Avenue, Cambridge, MA 02139; William Raj Sellers a citizen of The United States of America, having a mailing address of 250 Massachusetts Avenue, Cambridge, MA 02139; hereinafter generally referred to as "ASSIGNORS," have invented a certain new and useful

TREATMENT OF CANCER USING ANTI CD19 CHIMERIC ANTIGEN RECEPTOR

and filed in the United States Patent and Trademark Office on November 6, 2014 and accorded Application Number 62/076238;

and filed in the United States Patent and Trademark Office on **December 5, 2014** and accorded Application Number **62/087888**;

and filed in the United States Patent and Trademark Office on **December 29, 2014** and accorded Application Number 62/097278;

and/or filed as a PCT International Application on April 7, 20_{15} and accorded International Patent Application Number PCT/US2015/024671; and/or filed in the United States Patent and Trademark Office on April 7 20_{15} and accorded Application Number 14/680860;

AND, We 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 Ave, Cambridge, MA 02139, a company organized under 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, we, the said assignors, 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 REEL: 042347 FRAME: 0404

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 our names 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 us had this assignment, sale and transfer not been made.

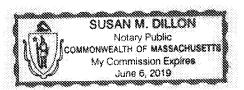
AND we hereby covenant that we have full right to convey the entire interest herein assigned, and that we have not executed and will not execute any agreement in conflict herewith, and we further covenant and agree that we will each time request is made and without undue delay, execute and deliver all 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 we 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 we 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.

4/10/15		(Seal)
Date	JOAN MANNICK	All married and a second
STATE/COMMONWEAL	THOF <u>Massachusetts</u> :	
COUNTY OF Middlese	: ss. ≾ <u>×</u>	
of <u>Apri</u> , 2015 known, and who having firs me first duly sworn, did a signed, sealed and delivered	bublic in and for the State and County aforesaid, so personally appeared Joan Mannick , who texecuted the foregoing instrument in my precknowledge the foregoing instrument as his by his/her for the purpose therein stated and that said instrument be recorded.	being to me personally esence and have been by sher free deed and act
	literan en Pallon	

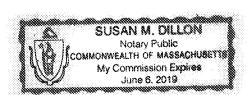
Notary Public
My Commission Expires:



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

4/17/15	DU16-	(Seal)
/ Date	DÁVID GLASS	
STATE/COMMONWEALTH O	F MassaehuseHs :	
COUNTY OF <u>Middlesex</u>	; ss.	
of <u>April</u> , 2015, per known, and who having first exec me first duly sworn, did acknow	in and for the State and County aforesaid, sonally appeared David Glass , who buted the foregoing instrument in my preswledge the foregoing instrument as his/is/her for the purpose therein stated and said instrument be recorded.	eing to me personally sence and have been by her free deed and act

Notary Public My Commission Expires:

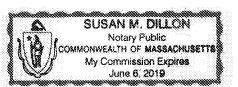


IN WITNESS WHEREOF, I have hereunto set my hand and seal.

April 20, 2015	LEÓN MURRHY	(Seal)
STATE/COMMONWEALTI	HOF Massachusells	
COUNTY OF <u>Middlesex</u>	: ss.	
of <u>Up nl</u> , 2015, known, and who having first e me first duly sworn, did ack signed, sealed and delivered b	plic in and for the State and County aforesaid, on personally appeared Leon Murphy , who being executed the foregoing instrument in my present nowledge the foregoing instrument as his/her by his/her for the purpose therein stated and integral and instrument be recorded.	ng to me personally ce and have been by free deed and act,
		· 美華權
	susan MOullon	and the second of the second o
• •	Notary Public	
	My Commission Expires:	

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

Apr 10, 2015 Date	Jennifer Brogdo	(Seal)
STATE/COMMONWEALTH COUNTY OFMIDDLESEX	OF <u>Massadousens</u> : : ss.	
Before me, a notary publ of <u>April</u> , 2015, personally known, and who ha have been by me first duly swo and act, signed, sealed and deli	ic in and for the State and County aforesaid, of personally appeared Jennifer Brogdon , aving first executed the foregoing instrumer forn, did acknowledge the foregoing instrume vered by his/her for the purpose therein stated ding that said instrument be recorded.	, who being to me nt in my presence and ont as his/her free deed
	Notary Public My Commission Expires:	



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

4/3/20/5

Date

WILLIAM RAJ SELLERS

STATE/COMMONWEALTH OF Massachusells:

State/County of Middle sex:

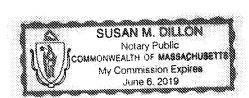
Before me, a notary public in and for the State and County aforesaid, on this 13th day of 2015, personally appeared William Raj Sellers, who being to me personally known, and who having first executed the foregoing instrument in my presence and have been by me first duly sworn, did acknowledge the foregoing instrument as his/her free deed and act, signed, sealed and delivered by his/her for the purpose therein stated and intending to be legally bound thereby and intending that said instrument be recorded.

Notary Public

Notary Public

My Commission Expires:

#2418979



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