507188193 03/21/2022

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT7235040

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
SARAH RUE	10/15/2012
BRENDAN ECKELMAN	10/16/2012
QUINN L DEVERAUX	10/16/2012
MARC NASOFF	10/18/2012

RECEIVING PARTY DATA

Name:	NOVARTIS INSTITUTE FOR FUNCTIONAL GENOMICS, INC.
Street Address:	10675 JOHN JAY HOPKINS DRIVE
City:	SAN DIEGO
State/Country:	CALIFORNIA
Postal Code:	92121

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15685257

CORRESPONDENCE DATA

Fax Number: (973)331-1717

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: (973) 331-1700

Email: CEDDocket@hbiplaw.com
Correspondent Name: HOFFMANN & BARON, LLP
Address Line 1: 6900 JERICHO TURNPIKE
Address Line 4: SYOSSET, NEW YORK 11791

ATTORNEY DOCKET NUMBER:	2848-14 PCT/US/CON
NAME OF SUBMITTER:	CHRISTINE E. DIETZEL
SIGNATURE:	/Christine E. Dietzel/
DATE SIGNED:	03/21/2022

Total Attachments: 8

source=2848-14 PCTUSCON - ASSIGNMENT NO. 1 - Inventors to Novartis Institute - REVISED#page1.tif source=2848-14 PCTUSCON - ASSIGNMENT NO. 1 - Inventors to Novartis Institute - REVISED#page2.tif source=2848-14 PCTUSCON - ASSIGNMENT NO. 1 - Inventors to Novartis Institute - REVISED#page3.tif

507188193 PATENT REEL: 059326 FRAME: 0413

source=2848-14 PCTUSCON - ASSIGNMENT NO. 1 - Inventors to Novartis Institute - REVISED#page4.tif source=2848-14 PCTUSCON - ASSIGNMENT NO. 1 - Inventors to Novartis Institute - REVISED#page5.tif source=2848-14 PCTUSCON - ASSIGNMENT NO. 1 - Inventors to Novartis Institute - REVISED#page6.tif source=2848-14 PCTUSCON - ASSIGNMENT NO. 1 - Inventors to Novartis Institute - REVISED#page7.tif source=2848-14 PCTUSCON - ASSIGNMENT NO. 1 - Inventors to Novartis Institute - REVISED#page8.tif

PATENT REEL: 059326 FRAME: 0414

ASSIGNMENT

This Assignment Agreement is entered into by and between

Sarah RUE	citizen of United States of America	Novartis Institute for Functional Genomics, Inc.
		dba Genomics Institute of the Novartis Research Foundation (GNF)
		10675 John Jay Hopkins Drive
		San Diego, California 92121 US
Brendan ECKELMAN	citizen of United States of America	Novartis institute for Functional Genomics, Inc.
		dba Genomics Institute of the Novartis Research Foundation (GNF)
		10675 John Jay Hopkins Drive
		San Diego, California 92121 US
Quinn L. DEVERAUX	citizen of United States of America	Novartis Institute for Functional Genomics, Inc.
		dba Genomics Institute of the Novartis Research Foundation (GNF)
		10675 John Jay Hopkins Drive
		San Diego, California 92121 US
Marc NASOFF	citizen of United States of America	Novartis Institute for Functional Genomics, Inc.
		dba Genomics Institute of the Novartis
		Research Foundation (GNF)
		10675 John Jay Hopkins Drive
		San Diego, California 92121

c/o NOVARTIS INSTITUTE FOR FUNCTIONAL GENOMICS, INC., dba Genomics Institute of the Novartis Research Foundation, 10675 John Jay Hopkins Drive, San Diego, California 92121, USA, (hereinafter "Inventor(s)"), and the NOVARTIS INSTITUTE FOR FUNCTIONAL GENOMICS, INC., dba the GENOMICS INSTITUTE OF THE NOVARTIS RESEARCH FOUNDATION (GNF), 10675 John Jay Hopkins Drive, San Diego, California 92121, USA, 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, GNF 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 GNF 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

Page 1 of 8

(1) all of our inventions and discoveries described in the provisional or non-provisional patent, utility model, or other application(s) entitled

MONOCLONAL ANTIBODIES AND METHODS OF USE [Patent Case PAT054851]

and filed in the (TO BE DETERMINED) Office on (TO BE DETERMINED) and accorded Application Number (TO BE DETERMINED); and/or filed as a PCT International Application on (TO BE DETERMINED) and accorded International Patent Application Number PCT (TO BE DETERMINED); and/or filed in the United States Patent and Trademark Office on October 26, 2011 and accorded Application Number 61/551,918 and on September 11, 2012 and accorded Application Number 61/699,300.

- (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;

Page 2 of 8

(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 laws of Delaware.

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

Executed this 15 k day of _	October , 2012.
BY Sarah RUE	L.S.
ACKNOWLEDGEMENT	
State of California)
County of San Diego) s.s.:)
personally appeared Sarah RUI person(s) whose name(s) (s) are she@he/they executed the same is	before me, <u>SIZACI CESACION</u> . Notary Public, I who proved to me on the basis of satisfactory evidence to be the subscribed to the within instrument and acknowledged to me that in his/her/their authorized capacity(ies), and that by his/heir/their e person(s), or the entity upon behalf of which the person(s) acted,
I certify under PENALTY OF PE paragraph is true and correct.	RJURY under the laws of the State of California that the foregoing
WITNESS my hand and officia	ıl seal.
Signature <u>((18</u>	SUSAN SESMOVICH SUSAN SESMOVICH Commission # 1962303 Rolary Public - California San Diago County My Comm. Esolres Dec 2, 2015

Executed this 16 day of	October , 2012.	
BY Brendan ECKECMAN	L.S.	
ACKNOWLEDGEMENT		
State of California)	
County of San Diego) s.s.:)	
appeared Brendan ECKELMA person(s) whose name(s) Same (no sheather) executed the same	N who proved to me on the is subscribed to the within inst in Michaeltheir authorized of	Notary Public, personally basis of satisfactory evidence to be the rument and acknowledged to me that apacity(ies), and that by http://ten/their in behalf of which the person(s) acted,
I certify under PENALTY OF PE paragraph is true and correct.	ERJURY under the laws of th	e State of California that the foregoing
WITNESS my hand and official	al seal.	
Signature Lucia Lexe	244 (Seal)	SUBAN SESNOVICH Commission & 1962303 Notary Public - California San Diego County My Comm. Expires Dec 2, 2015

Executed this day of	1 Otober 2012
BY	L.S.
Quint L. DEVERAUX	
Silver Control	
ACKNOWLEDGEMENT	
State of California)
) s.s.:
Compty of Com Diam.	,
County of San Diego)

On <u>UTUAR</u> before me, <u>SISAN SEANULON</u>, Notary Public, personally appeared **Quinn L. DEVERAUX** who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is are subscribed to the within instrument and acknowledged to me that his state the same in his has their authorized capacity (is s), and that by (is s) has their signature(s) on the instrument, the person(s) or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature List Lorose (Seal)

SUSAN SESNOVICH
Commission # 1962303
Notary Public - California
San Clago County
My Comm. Expires Ger 2, 2015

Executed this \(\frac{1}{2} \) day of \(\frac{1}{2} \)	<u>Mer</u> , 20 <u>12</u>
BY Mus Viry	L.S.
ACKNOWLEDGEMENT	
State of California)	
) s.s.: County of San Diego)	
appeared Marc NASOFF who proved to me whose name(s) Ware subscribed to the wi executed the same in his bentheir authorize	Notary Public, personally ne on the basis of satisfactory evidence to be the person(s) thin instrument and acknowledged to me that he she they d capacity(jes), and that by his her their signature(s) on the upon behalf of which the person(s) acted, executed the
I certify under PENALTY OF PERJURY to paragraph is true and correct.	under the laws of the State of California that the foregoing
WITNESS my hand and official seal.	
Signature <u>Jezon Jezonove</u>	SUSAN SESNOVICH Commission # 1982303 Seriery Public - California Sen Diego County My Comm. Express Coc 2, 2015

Executed this 22 day of _	October 20/2
Novartis Institute for Function BY A Robert C. DOWNS Executive Director, E.	L.S. ngineering, Informatics & IT
ACKNOWLEDGEMENT	
State of California)) s.s.:
County of San Diego)
person(s) whose name(s) it/are s ha/she/they executed the same i	ore me, <u>SUSANUSCOUCO</u> , Notary Public, personally the proved to me on the basis of satisfactory evidence to be the subscribed to the within instrument and acknowledged to me that in (h)s/her/their authorized capacity(jes), and that by(h)s/her/their e person(s), or the entity upon behalf of which the person(s) acted,
I certify under PENALTY OF PE paragraph is true and correct.	RJURY under the laws of the State of California that the foregoing
WITNESS my hand and officia	d seal.
Signature Julian Sens	SUSAN SESNOVICH Commission # 1982303 Motary Public - California San Diego County My Comm Freder County

Page 8 of 8