506180679 07/30/2020

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

SUBMISSION TYPE: NEW ASSIGNMENT

EPAS ID: PAT6227417

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
HARVEY FRIEDMAN	02/20/2020
DREW WEISSMAN	02/20/2020
SITA AWASTHI	02/20/2020
GARY COHEN	04/27/2020

RECEIVING PARTY DATA

Name:	THE TRUSTEES OF THE UNIVERSITY OF PENNSYLVANIA
Street Address:	3160 CHESTNUT STREET-SUITE 200
City:	PHILADELPHIA
State/Country:	PENNSYLVANIA
Postal Code:	19104

PROPERTY NUMBERS Total: 1

Property Type	Number	
Application Number:	16640008	

CORRESPONDENCE DATA

Fax Number: (646)878-0801

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: 646-878-0800

Email: USPTO@pearlcohen.com

Correspondent Name: PEARL COHEN ZEDEK LATZER BARATZ LLP

Address Line 1: 1500 BROADWAY
Address Line 2: 12TH FLOOR

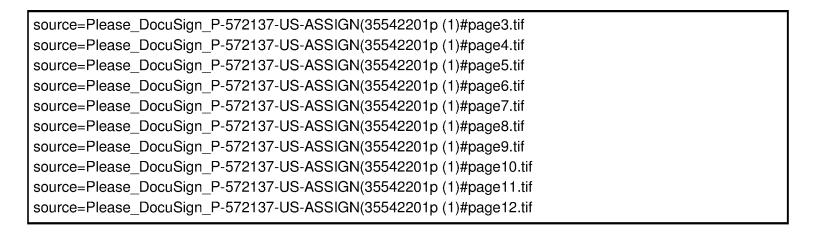
Address Line 4: NEW YORK, NEW YORK 10036

ATTORNEY DOCKET NUMBER:	P-572137-AU
NAME OF SUBMITTER:	MICHELLA EBURNE
SIGNATURE:	/Michella Eburne/
DATE SIGNED:	07/30/2020

Total Attachments: 12

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PATENT 506180679 REEL: 053359 FRAME: 0335



PATENT REEL: 053359 FRAME: 0336

ASSIGNMENT

WHEREAS, I, FRIEDMAN, Harvey, a citizen of US, residing at 310 Winding Way, Merion PA 19066, ASSIGNOR, am an inventor of one or more inventions disclosed, described and/or claimed in the application referred to as Docket Number P-572137-US ("the invention"), assigned application number 16/640,008 filed February 18, 2020, which is entitled MODIFIED MRNA VACCINES ENCODING HERPES SIMPLEX VIRUS GLYCOPROTEINS AND USES THEREOF ("the subject application"),

AND WHEREAS, The Trustees of the University of Pennsylvania, ASSIGNEE, having a place of business at 3160 Chestnut Street, Suite 200, Philadelphia, PA 19104, is desirous of obtaining my entire right, title, and interest in, to, and under the invention:

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I, the ASSIGNOR, hereby sell, assign, transfer, and set over, unto the ASSIGNEE, its successors, legal representatives, and assigns, my entire right, title, and interest in, to, and under the invention, and all applications for industrial property protection, including without limitation, all applications for patents, utility models, inventors' certificates, and designs that have been filed, and that may hereafter be filed, in any country, that disclose, describe, and/or claim the invention, including, without limitation, the subject application and the priority application, and all extensions, renewals, and reissues of such applications, including all divisions and continuations in whole or in part; all patents granted on such applications in any country, and all extensions, renewals, and reissues of such patents, including all divisions and continuations in whole or in part; the right to file such applications in any country; and the right to claim for such applications in any country the priority rights derived from the priority application and the subject application under the International Convention for the Protection of Industrial Property, the Patent Laws of the United States, any other international agreement or protection, or the domestic laws of any country in which any such application is filed, as may be applicable.

AND I HEREBY covenant and agree that I have full right to convey my entire interest herein assigned, and that I have not executed, and will not execute, any agreement in conflict herewith.

AND I HEREBY further covenant and agree that I will communicate to the ASSIGNEE, its successors, legal representatives, and assigns, any facts known to me respecting the invention, and testify in any legal proceeding, sign all lawful papers, execute all disclaimers and all divisional, continuing, reissue, and foreign applications, make all rightful oaths, deliver upon request all papers, documents, affidavits, or other instruments that may be necessary or helpful in the prosecution of any application for industrial property protection describing and/or claiming the invention, and generally do everything possible to aid the ASSIGNEE, its successors, legal representatives, and assigns, to obtain and enforce proper protection for the invention in all countries.

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DOCKET NO.: P-572137-US
IN TESTIMONY WHEREOF, I have signed my name below on the date indicated above my signature.
Executed this ZO day of Feb, year of 2020
Signature - FRIEDMAN, Harvey

WITNESS
Philadelphia PA Signed At (City/State)
Joan Williams Name
Goan Williams Signature
$\frac{2/20/20}{\text{Date}}$

This assignment is accepted on behalf of The Trustees of the University of Pennsylvania by:

Date

Docusigned by:

Jennifer Jugarbay.

Bennifer Langenberger

Director, Intellectual Property

ASSIGNMENT

WHEREAS, I, WEISSMAN, Drew, a citizen of US, residing at 218 Lloyd Ln, Wynnewood PA 19096, ASSIGNOR, am an inventor of one or more inventions disclosed, described and/or claimed in the application referred to as Docket Number P-572137-USP ("the invention"), assigned application number 16/640,008 filed February 18, 2020, which is entitled MODIFIED MRNA VACCINES ENCODING HERPES SIMPLEX VIRUS GLYCOPROTEINS AND USES THEREOF ("the subject application"),

AND WHEREAS, The Trustees of the University of Pennsylvania, ASSIGNEE, having a place of business at 3160 Chestnut Street, Suite 200, Philadelphia, PA 19104, is desirous of obtaining my entire right, title, and interest in, to, and under the invention:

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I, the ASSIGNOR, hereby sell, assign, transfer, and set over, unto the ASSIGNEE, its successors, legal representatives, and assigns, my entire right, title, and interest in, to, and under the invention, and all applications for industrial property protection, including without limitation, all applications for patents, utility models, inventors' certificates, and designs that have been filed, and that may hereafter be filed, in any country, that disclose, describe, and/or claim the invention, including, without limitation, the subject application and the priority application, and all extensions, renewals, and reissues of such applications, including all divisions and continuations in whole or in part; all patents granted on such applications in any country, and all extensions, renewals, and reissues of such patents, including all divisions and continuations in whole or in part; the right to file such applications in any country; and the right to claim for such applications in any country the priority rights derived from the priority application and the subject application under the International Convention for the Protection of Industrial Property, the Patent Laws of the United States, any other international agreement or protection, or the domestic laws of any country in which any such application is filed, as may be applicable.

AND I HEREBY covenant and agree that I have full right to convey my entire interest herein assigned, and that I have not executed, and will not execute, any agreement in conflict herewith.

AND I HEREBY further covenant and agree that I will communicate to the ASSIGNEE, its successors, legal representatives, and assigns, any facts known to me respecting the invention, and testify in any legal proceeding, sign all lawful papers, execute all disclaimers and all divisional, continuing, reissue, and foreign applications, make all rightful oaths, deliver upon request all papers, documents, affidavits, or other instruments that may be necessary or helpful in the prosecution of any application for industrial property protection describing and/or claiming the invention, and generally do everything possible to aid the ASSIGNEE, its successors, legal representatives, and assigns, to obtain and enforce proper protection for the invention in all countries.

IN TESTIMONY	WHEREOF, I have sign	ed my name below on the date	e indicated above
my signature.			
Executed this 20th	day of February	, year of 2020	
Signature - WEISSMAN	. Drew		
	,		
*******	********	*********	******
WITNESS			
Philadelphia, PA			
Signed At (City/State)			
Harold Weissman			
Name .			
Had then	Te	xt	
Signature	_		
2/20/2020			
Date			

This assignment is accepted on behalf of The Trustees of the University of Pennsylvania by:

7/30/2020

Date

Jennifer Langenberger

Director, Intellectual Property

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ASSIGNMENT

WHEREAS, I, AWASTHI, Sita, a citizen of US, residing at 124 Tall Trees Dr., Bala Cynwyd PA 19094, ASSIGNOR, am an inventor of one or more inventions disclosed, described and/or claimed in the application referred to as Docket Number P-572137-USP ("the invention"), assigned application number 16/640,008 filed February 18, 2020, which is entitled MODIFIED MRNA VACCINES ENCODING HERPES SIMPLEX VIRUS GLYCOPROTEINS AND USES THEREOF ("the subject application"),

AND WHEREAS, The Trustees of the University of Pennsylvania, ASSIGNEE, having a place of business at 3160 Chestnut Street, Suite 200, Philadelphia, PA 19104, is desirous of obtaining my entire right, title, and interest in, to, and under the invention:

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I, the ASSIGNOR, hereby sell, assign, transfer, and set over, unto the ASSIGNEE, its successors, legal representatives, and assigns, my entire right, title, and interest in, to, and under the invention, and all applications for industrial property protection, including without limitation, all applications for patents, utility models, inventors' certificates, and designs that have been filed, and that may hereafter be filed, in any country, that disclose, describe, and/or claim the invention, including, without limitation, the subject application and the priority application, and all extensions, renewals, and reissues of such applications, including all divisions and continuations in whole or in part; all patents granted on such applications in any country, and all extensions, renewals, and reissues of such patents, including all divisions and continuations in whole or in part; the right to file such applications in any country; and the right to claim for such applications in any country the priority rights derived from the priority application and the subject application under the International Convention for the Protection of Industrial Property, the Patent Laws of the United States, any other international agreement or protection, or the domestic laws of any country in which any such application is filed, as may be applicable.

AND I HEREBY covenant and agree that I have full right to convey my entire interest herein assigned, and that I have not executed, and will not execute, any agreement in conflict herewith.

AND I HEREBY further covenant and agree that I will communicate to the ASSIGNEE, its successors, legal representatives, and assigns, any facts known to me respecting the invention, and testify in any legal proceeding, sign all lawful papers, execute all disclaimers and all divisional, continuing, reissue, and foreign applications, make all rightful oaths, deliver upon request all papers, documents, affidavits, or other instruments that may be necessary or helpful in the prosecution of any application for industrial property protection describing and/or claiming the invention, and generally do everything possible to aid the ASSIGNEE, its successors, legal representatives, and assigns, to obtain and enforce proper protection for the invention in all countries.

Page 7 of 12

IN TESTIMONY WHEREOF, I have signed my name below on the date indicated above my signature.

day of 200 feb , year of 2020 Executed this

Signature - AWASTHI, Sita

WITNESS

Signed At (City/State)

Allison Bohn berger
Name

Name

Signature

Date

This assignment is accepted on behalf of The Trustees of the University of Pennsylvania by:

7/30/2020

Date

Docusinged by:

| Set of Congression | Set of Congressi

Director, Intellectual Property

Page 9 of 12

WHEREAS, I, COHEN, Gary, a citizen of US, residing at 41 Woodcroft Road, Havertown PA 19083, ASSIGNOR, am an inventor of one or more inventions disclosed, described and/or claimed in the application referred to as Docket Number P-572137-USP ("the invention"), assigned application number 16/640,008 filed February 18, 2020, which is entitled MODIFIED MRNA VACCINES ENCODING HERPES SIMPLEX VIRUS GLYCOPROTEINS AND USES THEREOF ("the subject application"),

AND WHEREAS, The Trustees of the University of Pennsylvania, ASSIGNEE, having a place of business at 3160 Chestnut Street, Suite 200, Philadelphia, PA 19104, is desirous of obtaining my entire right, title, and interest in, to, and under the invention:

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I, the ASSIGNOR, hereby sell, assign, transfer, and set over, unto the ASSIGNEE, its successors, legal representatives, and assigns, my entire right, title, and interest in, to, and under the invention, and all applications for industrial property protection, including without limitation, all applications for patents, utility models, inventors' certificates, and designs that have been filed, and that may hereafter be filed, in any country, that disclose, describe, and/or claim the invention, including, without limitation, the subject application and the priority application, and all extensions, renewals, and reissues of such applications, including all divisions and continuations in whole or in part; all patents granted on such applications in any country, and all extensions, renewals, and reissues of such patents, including all divisions and continuations in whole or in part; the right to file such applications in any country; and the right to claim for such applications in any country the priority rights derived from the priority application and the subject application under the International Convention for the Protection of Industrial Property, the Patent Laws of the United States, any other international agreement or protection, or the domestic laws of any country in which any such application is filed, as may be applicable.

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04/27/2020

Date

IN TESTIMONY WHE my signature.	EREOF,	I have signed	my name below o	on the date indicated above
Executed this 27th	day of _	April	, year of	·
Laughtohen				
Signature - COHEN, Gary				
********	*****	******	******	*******
WITNESS				
Philadelphia, PA				
Signed At (City/State)				
Laura Sprague				
Name Taum Jorge	e l			
Signature				

PENN DOCKET: 17-8201

This assignment is accepted on behalf of The Trustees of the University of Pennsylvania by:

Date

Docusined by:

Jensifer Jacquilleg.

Boulded Jennifer Langenberger

Director, Intellectual Property