505740131 10/24/2019

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:		NEW ASSIGNMENT	
NATURE OF CONVEYANCE:		ASSIGNMENT	
CONVEYING PARTY DA	ATA		
		Name	Execution Date
MARIA P. LIMBERIS			01/29/2018
ANNA P. TRETIAKOVA			01/26/2018
JAMES M. WILSON			01/26/2018
QIANG WANG			02/26/2018
RECEIVING PARTY DA	ТА		
Name:	THE TRUSTEES OF THE UNIVERSITY OF PENNSYLVANIA		
Street Address:	3600 CIVIC CENTER BLVD.		
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State/Country:	PENNSYLVANIA		
Postal Code:	19104		
PROPERTY NUMBERS		Number	7
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Property Type	159		
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/CathyAKodroff/

10/24/2019

Total Attachments: 8

SIGNATURE: DATE SIGNED:

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ASSIGNMENT

WHEREAS, we,

Maria P. LIMBERIS, a citizen of Australia, residing at The Murano, 2101 Market Street, Unit 3805, Philadelphia, Pennsylvania 19103, United States of America,

Anna P. TRETIAKOVA, a citizen of the United States, residing at 28 Central Street, Woburn, Massachusettes 01801, United States of America, and

James M. WILSON, a citizen of the United States, residing at 1831 Delancey Street, Philadelphia, Pennsylvania 19103, United States of America,

along with Michael NASO, Joost KOLKMAN, and Robert FRIESEN,

ASSIGNORS, are inventors of one or more inventions disclosed, described and/or claimed in the application referred to as Docket Numbers 17-7987P-P4 ("the invention"), assigned application number 62/464,753 filed February 28, 2017; application number 62/504,293 filed May 10, 2017; application number 62/560,834 filed September 20, 2017; and application number 62/618,443 filed January 17, 2018; each of which is entitled NOVEL AAV-MEDIATED INFLUENZA VACCINES ("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, United States of America, 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, we, the ASSIGNORS, hereby sell, assign, transfer, and set over, unto the ASSIGNEE, its successors, legal representatives, and assigns, our 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 WE HEREBY covenant and agree that we have full right to convey our entire interest herein assigned, and that we have not executed, and will not execute, any agreement in conflict herewith.

AND WE HEREBY further covenant and agree that we will communicate to the ASSIGNEE, its successors, legal representatives, and assigns, any facts known to us 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, we have signed our names below on the date indicated above our signatures.

Executed this 29th day of January, year of 2018.

Signature - Maria P. LIMBERIS

WITNESS

Philadelphia, Pennsylvania Signed At (City/State)

HARCEN WILSON

Name

Ily hay a stand

 $\frac{\alpha i / z \alpha }{Date}$

Page 2 of 5

Executed this 26 day of Barward year of 2018

WITNESS

Cambondy MA Signed At (City/State)

MICHAEL BINKS

Name Signature amory 2018 21L Date

Page 3 of 5

Signature - Anna P. TRETIAKOVA

Executed this <u>alo</u> day of <u>January</u>, year of <u>2018</u>.

Signature - James M. WILSON

WITNESS

Philadelphia, Pennsylvania Signed At (City/State)

Veronica Niblick

Vai Nei Signature

01/26/18 Date

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

01 8 <u>}∕\((i)</u> Date

Jennifer Langenberger

ASSIGNMENT

WHEREAS, I,

Qiang WANG, a citizen of China, residing at 228 West Winona Street, 1st Floor, Philadelphia, Pennsylvania 19144, United States of America,

along with Maria P. LIMBERIS, Anna P. TRETIAKOVA, James M. WILSON, Michael NASO, Joost KOLKMAN, and Robert FRIESEN,

ASSIGNORS, are inventors of one or more inventions disclosed, described and/or claimed in the application referred to as Docket Numbers 17-7987P-P4 ("the invention"), assigned application number 62/464,753 filed February 28, 2017; application number 62/504,293 filed May 10, 2017; application number 62/560,834 filed September 20, 2017; and application number 62/618,443 filed January 17, 2018; each of which is entitled NOVEL AAV-MEDIATED INFLUENZA VACCINES ("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, United States of America, 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, we, the ASSIGNORS, hereby sell, assign, transfer, and set over, unto the ASSIGNEE, its successors, legal representatives, and assigns, our 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 WE HEREBY covenant and agree that we have full right to convey our entire interest herein assigned, and that we have not executed, and will not execute, any agreement in conflict herewith.

AND WE HEREBY further covenant and agree that we will communicate to the ASSIGNEE, its successors, legal representatives, and assigns, any facts known to us 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, we have signed our names below on the date indicated above our signatures.

Executed this 26th day of February, year of 2018.

Signature – Qiang WANG

WITNESS

Philadelphia, Pennsylvania Signed At (City/State)

<u>Ve: N= Veronice Niblick</u> Name <u>Ve: N=</u>

Signature

02/26/18 Date

Page 2 of 3

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

<u>3|2%|</u> Date 2018

Jennifer Langenberger Director, Intellectual Property

Page 3 of 3

PATENT REEL: 050819 FRAME: 0745

RECORDED: 10/24/2019