

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT6114068

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
PETER COLLINS	02/16/2016
BO LIANG	02/16/2016
SHIRIN MUNIR	02/16/2016
ANNE SCHAAP NUTT	01/27/2016
URSULA BUCHHOLZ	02/16/2016
NATALIE MACKOW	03/30/2016
PETER KWONG	02/25/2016
BARNEY GRAHAM	01/28/2016
JASON MCLELLAN	02/08/2016
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	THE UNITED STATES OF AMERICA, AS REPRESENTED BY THE SECRETARY, DEPARTMENT OF HEALTH AND HUMAN SERVICES
<b>Street Address:</b>	OFFICE OF TECHNOLOGY TRANSFER, NATIONAL INSTITUTES OF HEALTH
<b>Internal Address:</b>	6011 EXECUTIVE BOULEVARD, SUITE 325, MSC 7660
<b>City:</b>	BETHESDA
<b>State/Country:</b>	MARYLAND
<b>Postal Code:</b>	20892-7660
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	16877319
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(503)595-5301
<i>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.</i>	
<b>Phone:</b>	5035955300
<b>Email:</b>	jacqueline.labergetyson@klarquist.com
<b>Correspondent Name:</b>	GREGORY K. SCOTT, KLARQUIST SPARKMAN, LLP
<b>Address Line 1:</b>	ONE WORLD TRADE CENTER, SUITE 1600
<b>Address Line 2:</b>	121 SW SALMON STREET
<b>Address Line 4:</b>	PORTLAND, OREGON 97204

PATENT

<b>ATTORNEY DOCKET NUMBER:</b>	9668-93586-08
<b>NAME OF SUBMITTER:</b>	GREGORY K. SCOTT
<b>SIGNATURE:</b>	/Gregory K. Scott/
<b>DATE SIGNED:</b>	05/19/2020

**Total Attachments: 12**

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**ASSIGNMENT FOR NIH/FDA/CDC INVENTIONS AIA  
(NIH OR FDA OR CDC CO-INVENTORS ONLY)**

**WHEREAS**, we, Peter Collins, Bo Liang, Shirin Munir, Anne Schaap Nutt, Ursula Buchholz, Natalie Mackow, Peter Kwong, Barney Graham, and Jason McLellan, are or were employee(s) and/or contractor(s) of the National Institutes of Health, , a component of the United States Department of Health and Human Services having an address at the Office of Technology Transfer, National Institutes of Health, 6011 Executive Boulevard, Suite 325, MSC 7660, Bethesda, MD 20892-7660, and have made certain inventions as described and claimed in:

U.S. Provisional Patent Application No. 62/105,667, filed on January 20, 2015, entitled "RECOMBINANT PARAMYXOVIRUSES AND THEIR USE," and

PCT Patent Application No. PCT/US2016/014154, filed on January 20, 2016, entitled "RECOMBINANT PARAMYXOVIRUSES AND THEIR USE,"

both of which applications are collectively referred to herein as "**The Patent Applications**"; and

**WHEREAS**, we are the inventors named in **The Patent Applications**; and

**WHEREAS**, the inventions described and claimed in **The Patent Applications** were made under conditions such as to entitle **THE UNITED STATES OF AMERICA, as represented by the Secretary, Department of Health and Human Services** [hereinafter **THE GOVERNMENT**] under Executive Order 10096 and its amendments, 35 U.S.C. §§200-201, §§206-207, and §210 and 37 C.F.R. Part 501 to the entire right, title, and interest in such inventions; and

**WHEREAS, THE GOVERNMENT** is desirous of acquiring all domestic and foreign right, title, and interest in the inventions described and claimed in **The Patent Applications**;

**NOW, THEREFORE**, having the legal obligation to assign our right, title and interest in the inventions described and claimed in **The Patent Applications** to **THE GOVERNMENT**, having a place of business at the Office of Technology Transfer, National Institutes of Health, 6011 Executive Boulevard, Suite 325, MSC 7660, Bethesda, MD 20892-7660 and for consideration, the receipt and sufficiency of which are hereby acknowledged, we hereby assign and transfer to **THE GOVERNMENT**:

the entire right, title, and interest in and to any and all inventions described and claimed in **The Patent Applications** and any and all Letters Patent which may be granted thereon, and any and all continuations, divisions, reissues or extensions thereof; and

all rights to claim priority on the basis of **The Patent Applications** including but not limited to applications filed through the provisions of the Patent Cooperation Treaty ("PCT Applications"); and

all applications for Letters Patent that may be filed for any and all inventions described and claimed in **The Patent Applications** that may be filed in any foreign country and all Letters Patent that may be granted thereon in any foreign country and all extensions, renewals, and

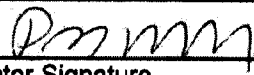
ASSIGNMENT - Page 1 of 6

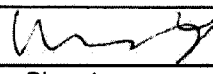
reissues thereof; and

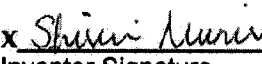
any and all such Letters Patent as may be granted in the United States or any foreign country to be held by **THE GOVERNMENT** to the end of the term for which the same would have been held by the inventor(s) had this assignment not been made.

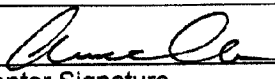
We further agree to make, execute, and deliver to **THE GOVERNMENT**, upon request, any and all papers, documents, affidavits, or other instruments that may be necessary in the prosecution of any application or applications for improvements or reissues of Letters Patent, and to assist **THE GOVERNMENT** in every way as may be requested in protecting said invention.

**IN WITNESS WHEREOF** we subscribe our hands and seals on the dates shown below:

Inventor: Peter Collins	
Date <u>2/16/16</u>	x <u></u> Inventor Signature
County of _____	
State of _____	
Subscribed and sworn to before me this _____ day of _____, _____.	
Seal	
Notary Signature: _____	
Notary Public for the State of: _____	
My Commission Expires: _____	

Inventor: Bo Liang	
Date <u>2/16/16</u>	x <u></u> Inventor Signature
County of _____	
State of _____	
Subscribed and sworn to before me this _____ day of _____, _____.	
Seal	
Notary Signature: _____	
Notary Public for the State of: _____	
My Commission Expires: _____	

Inventor: Shirin Munir	
Date <u>2/16/2016</u>	x <u></u> Inventor Signature
County of _____	
State of _____	
Subscribed and sworn to before me this _____ day of _____, _____.	
Seal	
Notary Signature: _____	
Notary Public for the State of: _____	
My Commission Expires: _____	

Inventor: Anne Schaap Nutt	
Date <u>1-27-16</u>	X <u></u> Inventor Signature
County of <u>Williamson</u>	
State of <u>Texas</u>	
Subscribed and sworn to before me this <u>27</u> day of <u>January</u> , <u>2016</u> .	
Seal	
	Notary Signature: _____
	Notary Public for the State of: _____
	My Commission Expires: _____

Inventor: Ursula Buchholz	
Date _____	X _____ Inventor Signature
County of _____	
State of _____	
Subscribed and sworn to before me this _____ day of _____, _____.	
Seal	
	Notary Signature: _____
	Notary Public for the State of: _____
	My Commission Expires: _____

Inventor: Natalie Mackow	
Date <u>3/30/16</u>	x <u>Natalie Mackow</u> Inventor Signature
County of _____	
State of _____	
Subscribed and sworn to before me this _____ day of _____, _____.	
Seal	
Notary Signature: _____	
Notary Public for the State of: _____	
My Commission Expires: _____	

Inventor: Peter Kwong	
Date _____	X _____ Inventor Signature
County of _____	
State of _____	
Subscribed and sworn to before me this _____ day of _____, _____.	
Seal	
Notary Signature: _____	
Notary Public for the State of: _____	
My Commission Expires: _____	

Inventor: Barney Graham	
Date <u>January 28, 2016</u>	X <u>[Signature]</u> Inventor Signature
County of <u>Montgomery County</u>	
State of <u>Maryland</u>	
Subscribed and sworn to before me this <u>28th</u> day of <u>January</u> , <u>2016</u> .	
Seal	
<div style="border: 1px solid black; padding: 5px; text-align: center;">MONIQUE C. YOUNG Notary Public Prince George's County Maryland My Commission Expires Oct. 7, 2016</div>	Notary Signature: <u>[Signature]</u> Notary Public for the State of: <u>[Signature]</u> My Commission Expires: <u>Oct. 7, 2016</u>

Inventor: Jason McLellan	
Date _____	X _____ Inventor Signature
County of _____	
State of _____	
Subscribed and sworn to before me this _____ day of _____, _____.	
Seal	
	Notary Signature: _____ Notary Public for the State of: _____ My Commission Expires: _____



**ASSIGNMENT FOR NIH/FDA/CDC INVENTIONS AIA  
(NIH OR FDA OR CDC CO-INVENTORS ONLY)**

**WHEREAS**, we, Peter Collins, Bo Liang, Shirin Munir, Anne Schaap Nutt, Ursula Buchholz, Natalie Mackow, Peter Kwong, Barney Graham, and Jason McLellan, are or were employee(s) and/or contractor(s) of the National Institutes of Health, , a component of the United States Department of Health and Human Services having an address at the Office of Technology Transfer, National Institutes of Health, 6011 Executive Boulevard, Suite 325, MSC 7660, Bethesda, MD 20892-7660, and have made certain inventions as described and claimed in:

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**WHEREAS**, the inventions described and claimed in **The Patent Applications** were made under conditions such as to entitle **THE UNITED STATES OF AMERICA, as represented by the Secretary, Department of Health and Human Services** [hereinafter **THE GOVERNMENT**] under Executive Order 10096 and its amendments, 35 U.S.C. §§200-201, §§206-207, and §210 and 37 C.F.R. Part 501 to the entire right, title, and interest in such inventions; and

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the entire right, title, and interest in and to any and all inventions described and claimed in **The Patent Applications** and any and all Letters Patent which may be granted thereon, and any and all continuations, divisions, reissues or extensions thereof; and

all rights to claim priority on the basis of **The Patent Applications** including but not limited to applications filed through the provisions of the Patent Cooperation Treaty ("PCT Applications"); and

all applications for Letters Patent that may be filed for any and all inventions described and claimed in **The Patent Applications** that may be filed in any foreign country and all Letters Patent that may be granted thereon in any foreign country and all extensions, renewals, and

ASSIGNMENT - Page 1 of 6

reissues thereof; and

any and all such Letters Patent as may be granted in the United States or any foreign country to be held by **THE GOVERNMENT** to the end of the term for which the same would have been held by the inventor(s) had this assignment not been made.

We further agree to make, execute, and deliver to **THE GOVERNMENT**, upon request, any and all papers, documents, affidavits, or other instruments that may be necessary in the prosecution of any application or applications for improvements or reissues of Letters Patent, and to assist **THE GOVERNMENT** in every way as may be requested in protecting said invention.

**IN WITNESS WHEREOF** we subscribe our hands and seals on the dates shown below:

Inventor: Peter Collins	
Date _____	X _____ Inventor Signature
County of _____	
State of _____	
Subscribed and sworn to before me this _____ day of _____, _____.	
Seal	Notary Signature: _____
	Notary Public for the State of: _____
	My Commission Expires: _____

Inventor: Bo Liang

Date \_\_\_\_\_

X \_\_\_\_\_  
Inventor Signature

County of \_\_\_\_\_

State of \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

Seal

Notary Signature: \_\_\_\_\_

Notary Public for the State of: \_\_\_\_\_

My Commission Expires: \_\_\_\_\_

Inventor: Shirin Munir

Date \_\_\_\_\_

X \_\_\_\_\_  
Inventor Signature

County of \_\_\_\_\_

State of \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

Seal

Notary Signature: \_\_\_\_\_

Notary Public for the State of: \_\_\_\_\_

My Commission Expires: \_\_\_\_\_

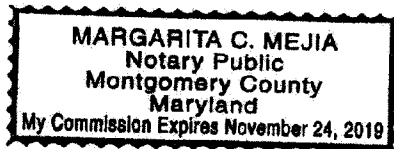
Inventor: Anne Schaap Nutt	
Date _____	X _____ Inventor Signature
County of _____	
State of _____	
Subscribed and sworn to before me this _____ day of _____, _____.	
Seal	
	Notary Signature: _____
	Notary Public for the State of: _____
	My Commission Expires: _____

Inventor: Ursula Buchholz	
Date <u>2/16/2016</u>	X <u>[Signature]</u> Inventor Signature
County of _____	
State of _____	
Subscribed and sworn to before me this _____ day of _____, _____.	
Seal	
	Notary Signature: _____
	Notary Public for the State of: _____
	My Commission Expires: _____

Inventor: Natalie Mackow	
Date _____	X _____ Inventor Signature
County of _____	
State of _____	
Subscribed and sworn to before me this _____ day of _____, _____.	
Seal	Notary Signature: _____ Notary Public for the State of: _____ My Commission Expires: _____

Inventor: Peter Kwong	
Date <u>Feb 25, 2016</u>	X <u>[Signature]</u> Inventor Signature
County of <u>Montgomery</u>	
State of <u>Maryland</u>	
Subscribed and sworn to before me this <u>25</u> day of <u>February</u> , <u>2016</u> .	
Seal	Notary Signature: <u>[Signature]</u> Notary Public for the State of: <u>Maryland</u> My Commission Expires: <u>Nov. 24, 19</u>

MARGARITA C. MEJIA  
Notary Public  
Montgomery County  
My Commission Expires November 24, 2019



Inventor: Barney Graham	
Date _____	X _____ Inventor Signature
County of _____	
State of _____	
Subscribed and sworn to before me this _____ day of _____, _____.	
Seal	
Notary Signature: _____	
Notary Public for the State of: _____	
My Commission Expires: _____	

Inventor: Jason McLellan	
Date <u>February 8, 2016</u>	X <u>[Signature]</u> Inventor Signature
County of <u>Grafton</u>	
State of <u>New Hampshire</u>	
Subscribed and sworn to before me this <u>8th</u> day of <u>February</u> , <u>2016</u> .	
Seal	
Notary Signature: <u>Kathleen Savage</u>	
Notary Public for the State of: <u>New Hampshire</u>	
My Commission Expires: <u>January 28, 2020</u>	