PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5165283

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
PETER KWONG	04/19/2017
BARNEY GRAHAM	04/18/2017
JOHN MASCOLA	04/10/2017
LIOU	04/11/2017
ALIAKSANDR DRUZ	04/12/2017
MAN CHEN	04/11/2017
WING-PUI KONG	04/24/2017
MICHAEL GORDON JOYCE	04/25/2017
YAROSLAV TSYBOVSKY	04/20/2017
MARIE PANCERA	04/13/2017
MALLIKA SASTRY	04/11/2017
CINQUE SOTO	04/20/2017
GUILLAUME STEWART-JONES	04/10/2017
YONGPING YANG	04/11/2017
BAOSHAN ZHANG	04/14/2017
IVELIN STEFANOV GEORGIEV	04/14/2017
EMILY RUNDLET	06/26/2017
PAUL THOMAS	07/05/2017
JOSEPH VAN GALEN	06/30/2017
ULRICH BAXA	07/05/2017

RECEIVING PARTY DATA

Name:	The United States of America, as represented by the Secretary, Department of Health and Human Services
Street Address:	6011 Executive Boulevard, Suite 325, MSC 7660
Internal Address:	Office of Technology Transfer, National Institutes of Health,
City:	Bethesda
State/Country:	MARYLAND
Postal Code:	20892-7660

PROPERTY NUMBERS Total: 1

PATENT REEL: 047160 FRAME: 0587

505118522

Property Type	Number
Application Number:	16089993

CORRESPONDENCE DATA

Fax Number: (503)595-5301

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: 503-595-5300

Email: deborah.martin@klarquist.com

Correspondent Name: GREGORY K. SCOTT, PH.D., KLARQUIST SPARKMAN LLP

Address Line 1: 121 SW SALMON STREET

Address Line 2: ONE WORLD TRADE CENTER, SUITE 1600

Address Line 4: PORTLAND, OREGON 97204-2988

ATTORNEY DOCKET NUMBER:	4239-96275-08	
NAME OF SUBMITTER:	BMITTER: GREGORY K. SCOTT, PH.D.	
SIGNATURE: /Gregory K. Scott/		
DATE SIGNED:	09/28/2018	

Total Attachments: 41

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PATENT REEL: 047160 FRAME: 0589

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

WHEREAS, we, Peter Kwong, Barney Graham, John Mascola, Li Ou, Aliaksandr Druz, Man Chen, Wing-Pui Kong, Ivelin Stefanov Georgiev, Emily Rundlet, Michael Gordon Joyce, Yaroslav Tsybovsky, Paul Thomas, Marie Pancera, Mallika Sastry, Cinque Soto, Joseph Van Galen, Guillaume Stewart-Jones, Yongping Yang, Baoshan Zhang, and Ulrich Baxa, employees and/or contactors of the National Institutes of Health, are each employed and/or contracted by 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. 62/314,946, filed on March 29, 2016, entitled "RSV F IMMUNOGENS AND THEIR USE," and

PCT Patent Application No. PCT/US2017/024714, filed on March 29, 2017, entitled "RSV F IMMUNOGENS AND THEIR USE,"

both applications are collectively referred to herein as "The Patent Application(s)"; and

WHEREAS, we are the inventors named in The Patent Application(s); and

WHEREAS, the inventions described and claimed in The Patent Application(s) 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 Application(s);

NOW, THEREFORE, having the legal obligation to assign our right, title and interest in the inventions described and claimed in **The Patent Application(s)** 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 Application(s)** 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 Application(s)** including but not limited to applications filed through the provisions of the Patent Cooperation Treaty ("PCT Applications"); and

ASSIGNMENT - Page 1 of 12

PATENT REEL: 047160 FRAME: 0590 all applications for Letters Patent that may be filed for any and all inventions described and claimed in **The Patent Application(s)** 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 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 Kwong	
Date	
	Inventor Signature
County of Mantgornery	
State of Many Ignal	
Subscribed and sworn to before me this	19 day of April , 2014.
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MARGARITA C. MEJIA Notary Public	Notary Signature:
Montgomery County Maryland	Notary Public for the State of: Mary and
§ My Commission Expires November 24, 2019 §	My Commission Expires: NW- 24, 249
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Inventor: Barney Graham	
Date 4 (N)	Inventor Signature
country of Montgomeny	
State of Mayland	· ·
Subscribed and sworn to before me this	(8 day of April , Dolf
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My Commission Expires November 24, 2019	my Commission Expires 11 0001
Inventor: John Mascola	
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ASSIGNMENT - Page 3 of 12

Inventor: Barney Graham	
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Date	Inventor Signature
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State of	
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:	Notary Public for the State of:
	My Commission Expires:
Inventor: John Mascola	
Date 10 April 2017	MarM
Date 10 mit 3014	Inventor Signature
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County of Mantagnery	
State of May and	¥ 4
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MARGARITA C. MEJIA	Notary Signature WOW
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Inventor: Li Ou	
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	Notary Signature:
	Notary Public for the State of:
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Inventor: Aliaksandr Druz	
Date 04/12/2017	$\mathcal{D}_{\mathbf{u}}$
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State of _____

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Inventor: Li Ou	
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MARGARITA C. MEJIA	Notary Signature: (MOUW)
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Inventor: Aliaksandr Druz	
Date	
Date	Inventor Signature

ASSIGNMENT - Page 4 of 12

Notary Signature:_____

Notary Public for the State of:_____

My Commission Expires:_____

Inventor: Man Chen		
Date <u>4/11/2017</u>	Inventor Signature	
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MARGARITA C. MEJIA	Notary Signature: 1900	
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Maryland My Commission Expires November 24, 2019	My Commission Expires:	_ /

Inventor: Wing-Pui Kong	
Date 4-24-2017	Inventor Signature
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State of May Tanel	
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REEL: 047160 FRAME: 0596

Inventor: Ivelin Stefanov Georgiev	
Date	
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County of	
State of	
Subscribed and sworn to before me this	day of
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	Notary Public for the State of:
	My Commission Expires:

Inventor: Emily Rundlet	
Date	
	Inventor Signature
County of	
State of	
Subscribed and sworn to before me this	day of,
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	Notary Public for the State of:
	My Commission Expires:

ASSIGNMENT - Page 6 of 12

Inventor: Michael Gordon Joyce	
Date 4-25-17	Golden Jaya
	Inventor Signature
County of MONT 90MM	
State of MUNION O	
Subscribed and sworn to before me this	25 day of April 2017
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MARGARITA C. MEJIA	Notary Signature: (MOV)
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Maryland My Commission Expires November 24, 2019	My Commission Expires: 1\ 34 16
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Inventor: Yaroslav Tsybovsky	
Date 04/20/2017	7-2-
	Inventor Signature
County of Frederick	
State of Manyland	
Subscribed and sworn to before me this	20 day of April , 2017
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Inventor: Paul Thomas	
Date	Inventor Signature
County of	
State of	
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	Notary Public for the State of:
	My Commission Expires:
Inventor: Marie Pancera Date 4//3/20/3	M/m (1 M) Inventor Signature
County of KING	
State of WASHINGTON	
	13 ⁷⁵⁴ day of <u>APRIL</u> , <u>2017</u> .
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ASSIGNMENT - Page 8 of 12

Inventor: Mallika Sastry	
Date <u>C4/:1/:7</u>	Maurica Labi Inventor Signature • (
County of MONTGOMERY	: *
State of MARYLAND	
Subscribed and sworn to before me this	11 day of April 2017
MARGARITA C. MEJIA Notary Public Montgomery County Maryland Ny Commission Expires November 24, 2018	Notary Signature: White State of: Mury Mary My Commission Expires: My 24, 29.

Inventor: Cinque Soto	
Date	
W.	Inventor Signature
County of	
State of	
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ASSIGNMENT - Page 9 of 12

REEL: 047160 FRAME: 0600

Inventor: Mallika Sastry	
Date	
	Inventor Signature
Country of	
County of	
State of	
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	Notary Signature:
	Notary Public for the State of:
	My Commission Expires:
Inventor: Cinque Soto	
Date <u>04/20/2017</u>	Inventor Signature
County of	
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Subscribed and sworn to before me this	day of,,
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	Notary Signature:
	Notary Public for the State of:
	My Commission Expires:

ASSIGNMENT - Page 9 of 12

Inventor: Joseph Van Galen	
Date	
	Inventor Signature
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*	Notary Signature:
	Notary Public for the State of:
	My Commission Expires:
Inventor: Guillaume Stewart-Jones	
Data established	<u>G8-7</u>
Date <u>04(i0(2017</u>	Inventor Signature
County of <u>United States of America</u>	-
State of May (and	
Subscribed and sworn to before me this	0 day of <u>April</u> , <u>3017</u> .
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MARGARITA C. MEJIA	Notary Signature: (Md)
Montgomery County	Notary Public for the State of May Land
Maryland My Commission Explos November 24, 2019	My Commission Expires: 1 101 2012

ASSIGNMENT - Page 10 of 12

REEL: 047160 FRAME: 0602

Inventor: Yongping Yang	
Date 04-11-3017	Inventor Signature
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County of Montegomery	
State of MD	
Subscribed and sworn to before me this	L day of April , 2017.
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MARGARITA C. MEJIA	Notary Signature: W
Notary Public Montgamery County	Notary Public for the State of: Mand
Maryland My Commission Expires November 24, 2019	My Commission Expires: NW XI, Zalca
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Inventor: Baoshan Zhang	
Date 4 14 2017	Inventor Signature
County of	4 day of April , 2017.
Seal MARGARITA C. MEJIA Notary Public Montgomery County Maryland My Commission Expires November 24, 2019	Notary Signature (\(\Delta \)

REEL: 047160 FRAME: 0603

Inventor: Ulrich Baxa	
Date	
	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:
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ASSIGNMENT FOR NIH/FDA/CDC INVENTIONS AIA (NIH OR FDA OR CDC CO-INVENTORS ONLY)

WHEREAS, we, Peter Kwong, Barney Graham, John Mascola, Li Ou, Aliaksandr Druz, Man Chen, Wing-Pui Kong, Ivelin Stefanov Georgiev, Emily Rundlet, Michael Gordon Joyce, Yaroslav Tsybovsky, Paul Thomas, Marie Pancera, Mallika Sastry, Cinque Soto, Joseph Van Galen, Guillaume Stewart-Jones, Yongping Yang, Baoshan Zhang, and Ulrich Baxa, employees and/or contactors of the National Institutes of Health, are each employed and/or contracted by 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. 62/314,946, filed on March 29, 2016, entitled "RSV F IMMUNOGENS AND THEIR USE," and

PCT Patent Application No. PCT/US2017/024714, filed on March 29, 2017, entitled "RSV F IMMUNOGENS AND THEIR USE,"

both applications are collectively referred to herein as "The Patent Application(s)"; and

WHEREAS, we are the inventors named in The Patent Application(s); and

WHEREAS, the inventions described and claimed in The Patent Application(s) 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 Application(s)**;

NOW, THEREFORE, having the legal obligation to assign our right, title and interest in the inventions described and claimed in **The Patent Application(s)** 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 Application(s)** 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 Application(s)** including but not limited to applications filed through the provisions of the Patent Cooperation Treaty ("PCT Applications"); and

ASSIGNMENT - Page 1 of 12

all applications for Letters Patent that may be filed for any and all inventions described and claimed in **The Patent Application(s)** 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 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 Kwong	
Date	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	Inventor Circontura
	Inventor Signature
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Inventor: John Mascola	
Date	
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Inventor: Li Ou	
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Inventor: Aliaksandr Druz	
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ASSIGNMENT - Page 4 of 12

Inventor: Man Chen	
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Inventor: Wing-Pui Kong	
Date	Inventor Signature
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ASSIGNMENT - Page 5 of 12

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Inventor Signature
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Inventor: Emily Rundlet	
Date	Inventor Signature
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ASSIGNMENT - Page 6 of 12

Inventor: Michael Gordon Joyce	
Date	
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Lavanta v. Vava alav Tavbavalov	
inventor: Yarosiav Tsybovsky	
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ASSIGNMENT - Page 7 of 12

Inventor: Paul Thomas	
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	My Commission Expires:
Inventor: Marie Pancera	
Date	
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ASSIGNMENT - Page 8 of 12

Inventor: Mallika Sastry	
Date	Inventor Signature
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Inventor: Cinque Soto	
Date	Inventor Signature
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ASSIGNMENT - Page 9 of 12

Inventor: Joseph Van Galen	
Date	
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Country of	
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Subscribed and sworn to before me this	day of
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	Notary Public for the State of:
	My Commission Expires:
Inventor: Guillaume Stewart-Jones	
Date	Inventor Signature
	inventor Signature
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ASSIGNMENT - Page 10 of 12

Inventor: Yongping Yang	
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La color December 7h	
Inventor: Baoshan Zhang	
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	Inventor Signature
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ASSIGNMENT - Page 11 of 12

Inventor: Ulrich Baxa	
Date	Inventor Signature
County of	
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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 Kwong, Barney Graham, John Mascola, Li Ou, Aliaksandr Druz, Man Chen, Wing-Pui Kong, Ivelin Stefanov Georgiev, Emily Rundlet, Michael Gordon Joyce, Yaroslav Tsybovsky, Paul Thomas, Marie Pancera, Mallika Sastry, Cinque Soto, Joseph Van Galen, Guillaume Stewart-Jones, Yongping Yang, Baoshan Zhang, and Ulrich Baxa, employees and/or contactors of the National Institutes of Health, are each employed and/or contracted by 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. 62/314,946, filed on March 29, 2016, entitled "RSV F IMMUNOGENS AND THEIR USE," and

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both applications are collectively referred to herein as "The Patent Application(s)"; and

WHEREAS, we are the inventors named in The Patent Application(s); and

WHEREAS, the inventions described and claimed in The Patent Application(s) 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 Application(s);

NOW, THEREFORE, having the legal obligation to assign our right, title and interest in the inventions described and claimed in **The Patent Application(s)** 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 Application(s)** 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 Application(s)** including but not limited to applications filed through the provisions of the Patent Cooperation Treaty ("PCT Applications"); and

ASSIGNMENT - Page 1 of 12

all applications for Letters Patent that may be filed for any and all inventions described and claimed in **The Patent Application(s)** 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 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 Kwong	
Date	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 - Page 2 of 12

Inventor: Barney Graham	
Data	
Date	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:
	
Incomptant John Massacle	
Pate	
Date	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 - Page 3 of 12

Inventor: Li Ou	
Date	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:
Leave Aliaka and Drug	
Inventor: Aliaksandr Druz	
Date	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 - Page 4 of 12

Inventor: Man Chen	
Date	
	Inventor Signature
County of	
State of	
	day of
	day of
Seal	Alatani Cianatura:
	Notary Signature:
	Notary Public for the State of:
	My Commission Expires:
Inventor: Wing-Pui Kong	
Date	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 - Page 5 of 12

Inventor: Ivelin Stefanov Georgiev	
Date	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: Emily Rundlet	many s. s. many
Date <u>(4-26-2017</u>	Inventor Signature
County of Ough	
State of New York	
Subscribed and sworn to before me this	6_day of 5me, 2017.
Seal RYAN STEVANOVIC Notary Public, State of New York No. 018T6328793 Qualified in Quoens County Commission Expires August 16, 20.1	Notary Signature:

ASSIGNMENT - Page 6 of 12

REEL: 047160 FRAME: 0622

Inventor: Michael Gordon Joyce	
Date	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: Yaroslav Tsybovsky	
Date	Inventor Signature
County of	_
State of	
	day of
Seal	
	Notary Signature:
	Notary Public for the State of:
	My Commission Expires:

ASSIGNMENT - Page 7 of 12

Inventor: Paul Thomas	
Date 2017 July 05	Inventor Signature
County of SAN FRANCISCO	
State of CALIFORNIA	tu
Subscribed and sworn to before me this	5 day of <u>JULY</u> , <u>2017</u> .
Seal	0 10 1 20
OUD SAPPRASERT O'BRIEN	Notary Signature: Vullappant Oher
COMM. # 2053120 NOTARY PUBLIC - CALIFORNIA	Notary Public for the State of: CALLEGANA
SAN FRANCISCO COUNTY My Comm. Expires Dac. 23, 2017	My Commission Expires: (2(23/2017
	my Continuesion Expires. (22)

Inventor: Marie Pancera	
Date	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 - Page 8 of 12

REEL: 047160 FRAME: 0624

Inventor: Mallika Sastry	
Date	
-	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:
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Data	
Date	Inventor Signature
County of	
State of	•
	day of
Seal	
	Notary Signature:
	Notary Public for the State of:
	My Commission Expires:

ASSIGNMENT - Page 9 of 12

Inventor: Joseph Van Galen	
Date 6/30/2017	Inventor Signature
County of Montgomery State of Pennsylvan; a	-
	0 · . < \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
Subscribed and sworn to before me this 3	O day or
Seal NOTARIAL SEAL ASHLEY KEARNEY Notary Public LANGDALE SORD, MONTGOMERY COUNTY My Commission Engines Jun 25, 2019	Notary Signature State of Penns (Nanical My Commission Expires: Sune 25, 2019
Inventor: Guillaume Stewart-Jones	
Poto	
Date	Inventor Signature
County of	
County of	
State of	day of
	day of
Seal	
	Notary Signature:
	Notary Public for the State of:
	My Commission Expires:

ASSIGNMENT - Page 10 of 12

Inventor: Yongping Yang	
Date	
	Inventor Signature
County of	
State of	
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	Notary Signature:
	Notary Public for the State of:
	My Commission Expires:
Inventor Decelor There	
Date	Inventor Signature
	inventor Signature
County of	
State of	
	day of
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	Notary Signature:
	Notary Public for the State of:
	My Commission Expires:

ASSIGNMENT - Page 11 of 12

Inventor: Ulrich Baxa	
Date	_
	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 - Page 12 of 12

ASSIGNMENT FOR NIH/FDA/CDC INVENTIONS AIA (NIH OR FDA OR CDC AND LEIDOS BIOMEDICAL CO-INVENTORS ONLY)

WHEREAS, I, Ulrich Baxa, an employee of Leidos Biomedical Research, Inc., a subsidiary of Leidos, Inc., a Delaware corporation having a principal place of business at 1050 Boyles Street, Bldg 428, Frederick, MD 21702-1201 have, along with others, made certain inventions as described and claimed in:

U.S. Provisional Patent Application No. 62/314,946, filed on March 29, 2016, entitled "RSV F IMMUNOGENS AND THEIR USE," and

PCT Patent Application No. PCT/US2017/024714, filed on March 29, 2017, entitled "RSV F IMMUNOGENS AND THEIR USE."

both of which applications are collectively referred to herein as "The Patent Application(s)"; and

WHEREAS, I am the inventor named in The Patent Application(s); and

WHEREAS, the inventions described and claimed in The Patent Application(s) 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 Application(s);

NOW, **THEREFORE**, having the legal obligation to assign my right, title and interest in the inventions described and claimed in **The Patent Application(s)** 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, I 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 Application(s)** 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 Application(s)** 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 Application(s)** 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 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.

ASSIGNMENT - Page 1 of 2

I 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: Ulrich Baxa	
Date <u>7/5/17</u>	inventor Signature
County of Contographics	
State of Mary (Sec)	8
Subscribed and sworn to before me this	day of
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	Notary Signature:
Notary Public Maryland	Notary Public for the State of: Manager
Montgomery County My-Gogorission, Exoires	My Commission Expires: 2 72 12

ASSIGNMENT - Page 2 of 2