#### 10/18/2016 504055569

# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4102234

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

# **CONVEYING PARTY DATA**

Name	Execution Date
RALPH BARIC	09/13/2016
SUDHAKAR AGNIHOTHRAM	10/05/2016
BOYD YOUNT	09/15/2016

# **RECEIVING PARTY DATA**

Name:	THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL
Street Address:	100 EUROPA DRIVE
Internal Address:	SUITE 430
City:	CHAPEL HILL
State/Country:	NORTH CAROLINA
Postal Code:	27517

# **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	15124992

# CORRESPONDENCE DATA

Fax Number: (919)854-1401

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: 919-854-1400

Email: mspinelli@myersbigel.com

**Correspondent Name:** MYERS BIGEL, P.A. Address Line 1: PO BOX 37428

Address Line 4: RALEIGH, NORTH CAROLINA 27627

ATTORNEY DOCKET NUMBER:	5470-672
NAME OF SUBMITTER:	MADDIE SPINELLI
SIGNATURE:	/MNS/
DATE SIGNED:	10/18/2016

# **Total Attachments: 9**

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> **PATENT** REEL: 040047 FRAME: 0692 504055569



PATENT REEL: 040047 FRAME: 0693

#### ASSIGNMENT

THIS ASSIGNMENT, made by us, **Ralph Baric**, a citizen of the United States of America, residing at 2600 Northstream Court, Haw River, North Carolina 27258; **Sudhakar Agnihothram**, a citizen of India, residing at 3200 Pine Orchard Lane, Apartment 301, Ellicott City, Maryland 20142; and **Boyd Yount**, a citizen of the United States of America, residing at 1002 Scotsburg Trail, Hillsborough, North Carolina, 27278;

WITNESSETH: That,

WHEREAS, we are joint inventors of certain new and useful improvements in *METHODS*AND COMPOSITIONS FOR CHIMERIC CORAONAVIRUS SPIKE PROTEINS for which U.S.

Provisional Patent Application No. 61/968,279 was filed March 20, 2014; International Patent

Application No. PCT/US2015/021773 was filed March 20, 2015; and U.S. Patent Application No.

15/124,992 was filed September 9, 2016 in the United States Patent and Trademark Office; and

WHEREAS, The University of North Carolina at Chapel Hill, a constituent institution of The University of North Carolina and an educational institution chartered under the laws of the State of North Carolina having a principal place of business at 100 Europa Drive, Suite 430, Chapel Hill, North Carolina, hereinafter referred to as assignee, is desirous of acquiring the entire right, title and interest in and to said invention as described in said applications, and in and to any and all Letters Patent which shall be granted therefor in the United States of America and all foreign countries;

NOW, THEREFORE, To All Whom It May Concern, be it known that for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the above assignor has sold and by these presents does hereby sell, assign, transfer, and convey unto the said assignee, its successors and assigns, the entire right, title, and interest in and to the said invention and applications, and in and to any and all continuations, continuations-in-part, or divisions thereof, and in and to any and all Letters Patent of the United States of America and all foreign countries or reissues or other forms of protection thereof which may be granted therefor or thereon, for the full end of the term for which said Letters Patent may be granted along with any term extensions thereon or therefor, together with the right to claim the priority of said applications in all foreign countries in accordance with the International Convention, the same to be held and enjoyed by said assignee, its successors and assigns, as fully and entirely as the same would have been held and enjoyed by assignors if this assignment and sale had not been made.

We hereby request that said Letters Patent be issued in accordance with this assignment.

We further covenant and agree that, at the time of the execution and delivery of these presents, we possess full title to the invention and applications above-mentioned, and that we have the unencumbered right and authority to make this assignment.

We further covenant and agree to promptly communicate to said assignee or its representatives any facts known to us relating to said invention, to testify in any interference or legal proceedings involving said invention, to execute any additional papers which may be requested to confirm the right of the assignee, its representatives, successors, or assigns to secure patent or similar protection for the said invention in all countries and to vest in the assignee complete title to the said invention and Letters Patent, without further compensation, but at the expense of said assignee, its successors, assigns, and other legal representatives; and we hereby instruct, and further covenant and agree to bind our heirs, legal representatives, and assigns, to do same, without further compensation, but at the expense of said assignee or its representatives.

		-	•		
וויית	IN WITNESS	WHEREOF, I h	iave hereunto set m	y hand and seal on t	his $\frac{13}{3}$ day of
Sep	tember, 20	16	07/11	'//	
			Keph A.	12(SEA	AL)
			Ralph Bar	rie	

STATE OF 7 by th (aralina) ss. COUNTY OF (Mamarce) ss.

Before me personally appeared the person described in and who executed the foregoing instrument, and s/he acknowledged to me that s/he executed the same for the purposes therein stated, this 13 day of 30 day of 30 day.

Notary Public

sion Expires:

, 20	EOF, I have hereunto set my hand and seal on this day of
	(SEAL)
	Sudhakar Agnihothram
STATE OF	
COUNTY OF	) ss: )
Before me personally	appeared the person described in and who executed the foregoing
instrument, and s/he acknowle	edged to me that s/he executed the same for the purposes therein stated,
this day of	
	Notary Public
SEAL	•
My Commission Expires:	
IN WITNESS WHER, 20	EOF, I have hereunto set my hand and seal on this day of(SEAL)  Boyd Yount
STATE OF	)
STATE OF	) ss: )
Before me personally	appeared the person described in and who executed the foregoing
instrument, and s/he acknowle	edged to me that s/he executed the same for the purposes therein stated,
this day of	, 20
	Notary Public
SEAL	
My Commission Expires:	

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NOW, THEREFORE, To All Whom It May Concern, be it known that for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the above assignor has sold and by these presents does hereby sell, assign, transfer, and convey unto the said assignee, its successors and assigns, the entire right, title, and interest in and to the said invention and applications, and in and to any and all continuations, continuations-in-part, or divisions thereof, and in and to any and all Letters Patent of the United States of America and all foreign countries or reissues or other forms of protection thereof which may be granted therefor or thereon, for the full end of the term for which said Letters Patent may be granted along with any term extensions thereon or therefor, together with the right to claim the priority of said applications in all foreign countries in accordance with the International Convention, the same to be held and enjoyed by said assignee, its successors and assigns, as fully and entirely as the same would have been held and enjoyed by assignors if this assignment and sale had not been made.

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We further covenant and agree to promptly communicate to said assignee or its representatives any facts known to us relating to said invention, to testify in any interference or legal proceedings involving said invention, to execute any additional papers which may be requested to confirm the right of the assignee, its representatives, successors, or assigns to secure patent or similar protection for the said invention in all countries and to vest in the assignee complete title to the said invention and Letters Patent, without further compensation, but at the expense of said assignee, its successors, assigns, and other legal representatives; and we hereby instruct, and further covenant and agree to bind our heirs, legal representatives, and assigns, to do same, without further compensation, but at the expense of said assignee or its representatives.

IN WITNESS WHERE	OF, I have hereunto set my hand and seal on thi	s day of
	(SEAI	<b>(</b> )
	Ralph Baric	
STATE OF		
COUNTY OF	) ss: )	
Before me personally ap	peared the person described in and who execut	ed the foregoing
instrument, and s/he acknowled	ged to me that s/he executed the same for the pu	irposes therein stated
this day of	, 20	
	Notary Public	
SEAL		
My Commission Expires:		

IN WITNESS WHEREOF, I have hereunto set my hand and seal on this day of
DCJOBER, 2016
(SEAL)
Sidhakar Agnihothram (SEAL)
STATE OF MARYLAND
STATE OF MARYLAND ss:  COUNTY OF MONTGOMERY)
Before me personally appeared the person described in and who executed the foregoing
instrument, and s/he acknowledged to me that s/he executed the same for the purposes therein stated
this 5 day of OCTO BER, 2016
Notary Public
SEAL
My Commission Expires:  Helen S. Gemignani NOTARY PUBLIC
FREDERICK COUNTY MARYLAND MY COMMISSION EXPIRES NOV 20, 2018
MY COMMISSION EXPIRES NOV 20, 2018
IN WITNESS WHEREOF, I have hereunto set my hand and seal on this day of, 20
(SEAL)
Boyd Yount
STATE OF
COUNTY OF
Before me personally appeared the person described in and who executed the foregoing
instrument, and s/he acknowledged to me that s/he executed the same for the purposes therein stated,
this day of, 20
Notary Public SEAL
BEAL
My Commission Expires:

Page 3 of 3

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NOW, THEREFORE, To All Whom It May Concern, be it known that for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the above assignor has sold and by these presents does hereby sell, assign, transfer, and convey unto the said assignee, its successors and assigns, the entire right, title, and interest in and to the said invention and applications, and in and to any and all continuations, continuations-in-part, or divisions thereof, and in and to any and all Letters Patent of the United States of America and all foreign countries or reissues or other forms of protection thereof which may be granted therefor or thereon, for the full end of the term for which said Letters Patent may be granted along with any term extensions thereon or therefor, together with the right to claim the priority of said applications in all foreign countries in accordance with the International Convention, the same to be held and enjoyed by said assignee, its successors and assigns, as fully and entirely as the same would have been held and enjoyed by assignors if this assignment and sale had not been made.

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IN WITNESS WHEREOF, I h	nave hereunto set my hand and seal on this day of
	Ralph Baric (SEAL)
STATE OF	_)
COUNTY OF	) ss: _)
	If the person described in and who executed the foregoing me that s/he executed the same for the purposes therein stated,, 20
SEAL	Notary Public
My Commission Expires:	

IN WITNESS WHEREOF, I have her, 20	eunto set my hand and seal on this day of
	(SEAL) dhakar Agnihothram
STATE OF)	
COUNTY OF	
Before me personally appeared the per	rson described in and who executed the foregoing
	s/he executed the same for the purposes therein stated,
this, 20	
	Notary Public
SEAL	Notary Public
My Commission Expires:	
IN WITNESS WHEREOF, I have her September, 2016	eunto set my hand and seal on this 15 <sup>th</sup> day of Boyd Yount (SEAL)
STATE OF North Carolina ss:	
Before me personally appeared the per	son described in and who executed the foregoing
instrument, and s/he acknowledged to me that	s/he executed the same for the purposes therein stated,
this 15 day of September, 2011	Crol Mitolell Notary Public
My Commission Expires: $0-5-1$	

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