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| <b>PATENT ASSIGNMENT COVER SHEET</b> |
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Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT7404516

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|---|----------------------------|
| <b>SUBMISSION TYPE:</b>   | NEW ASSIGNMENT             |
| <b>NATURE OF CONVEYANCE:</b>  | ASSIGNMENT                 |
| <b>CONVEYING PARTY DATA</b>   |                            |
| <b>Name</b>   | <b>Execution Date</b>      |
| RICHARD J. PORAMBO  | 01/30/2018                 |
| CHITRANANDA ABEYGUNAWARDANA   | 01/30/2018                 |
| LUWY KAVUKA MUSEY   | 01/30/2018                 |
| MICHAEL J. KOSINKSI   | 01/30/2018                 |
| YADONG ADAM CUI   | 01/30/2018                 |
| <b>RECEIVING PARTY DATA</b>   |                            |
| <b>Name:</b>  | MERCK SHARP & DOHME CORP.  |
| <b>Street Address:</b>  | 126 EAST LINCOLN AVENUE    |
| <b>City:</b>  | RAHWAY                     |
| <b>State/Country:</b>   | NEW JERSEY                 |
| <b>Postal Code:</b>   | 07065                      |
| <b>PROPERTY NUMBERS Total: 1</b>  |                            |
| <b>Property Type</b>  | <b>Number</b>              |
| <b>Application Number:</b>  | 17848466                   |
| <b>CORRESPONDENCE DATA</b>  |                            |
| <b>Fax Number:</b>  |                            |
| <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>Email:</b>   | US-DOCKET-PATENT@MERCK.COM |
| <b>Correspondent Name:</b>  | MERCK                      |
| <b>Address Line 1:</b>  | 126 EAST LINCOLN AVENUE    |
| <b>Address Line 4:</b>  | RAHWAY, NEW JERSEY 07065   |
| <b>ATTORNEY DOCKET NUMBER:</b>  | 24497 - US DIV             |
| <b>NAME OF SUBMITTER:</b>   | CHRISTINE KANELLIDIS       |
| <b>SIGNATURE:</b>   | /Christine Kanellidis/     |
| <b>DATE SIGNED:</b>   | 06/28/2022                 |
| <b>Total Attachments: 5</b>   |                            |
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| source=24497USPCT-ASSIGN-06MAR2020#page2.tif  |                            |

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## WORLDWIDE ASSIGNMENT

WHEREAS, I/WE,

- |     |                                    |            |                                 |
|-----|------------------------------------|------------|---------------------------------|
| (1) | <u>Richard J. Porambo</u>          | located at | <u>Norristown, Pennsylvania</u> |
| (2) | <u>Chitrananda Abeygunawardana</u> | located at | <u>Ambler, Pennsylvania</u>     |
| (3) | <u>Luwu Kavuka Musey</u>           | located at | <u>Blue Bell, Pennsylvania</u>  |
| (4) | <u>Michael J. Kosinski</u>         | located at | <u>Souderton, Pennsylvania</u>  |
| (5) | <u>Yadong Adam Cui</u>             | located at | <u>Norristown, Pennsylvania</u> |

(hereinafter ASSIGNOR(S)), is/are the inventor(s) of the invention described in an application for Patents having the Attorney Docket Number indicated above and the following Title of the Invention:

PNEUMOCOCCAL POLYSACCHARIDES AND THEIR USE IN IMMUNOGENIC POLYSACCHARIDE-CARRIER  
PROTEIN CONJUGATES

and/or in the following application(s):

U.S. Provisional Application No. 62/555,451 filed on September 7, 2017;  
U.S. Application No. 16/645,023 having a filing date of March 6, 2020; and  
PCT International Application No. \_\_\_\_\_ having a filing date of \_\_\_\_\_.

WHEREAS I/WE covenant that the rights and property herein conveyed are free and clear of any encumbrance, and that I/we have the full right to convey the same as herein expressed.

WHEREAS, Merck Sharp & Dohme Corp., a corporation organized under the laws of the State of New Jersey, having an office at 126 East Lincoln Avenue, Rahway, New Jersey 07065, and its successors, assigns and legal representatives (hereinafter **ASSIGNEE**), is desirous of obtaining the entire right, title and interest in, to and under the invention disclosed in said application or applications;

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, I/we, said ASSIGNOR(S), do each hereby sell, assign and transfer or confirm the grant and assignment to said **ASSIGNEE** my/our entire right, title and interest in all countries of the world in and to my/our invention described in said application for Patents, in and to the right to file patent applications in the name of **ASSIGNEE**, its designee, or in any or all of our names, at its election, on the aforesaid invention in all countries of the world, together with all rights of priority in the aforesaid countries deriving from the above-identified application for Patents under the International Convention for the Protection of Industrial Property, under the Inter-American Convention relating to Inventions, Patents, Designs and Industrial Models and under any other international arrangement relating to patents or intellectual property, in and to any and all Letters Patent that are granted from the aforesaid application for Patents, in and to any applications claiming priority benefits to a provisional patent application or other applications filed on said invention, and in and to any continuations, divisions, reexaminations, reissues, renewals and extensions thereof of any of said Letters Patent, the same to be held and enjoyed by said **ASSIGNEE**, to the full ends of the terms for which all Letters Patent therefore may be granted, as fully and entirely as the same would have been held and enjoyed by us if this assignment and sale had not been made.

AND I/WE HEREBY covenant and agree that we will at any time, upon the request and at the expense of **ASSIGNEE**, without further compensation or charge to said **ASSIGNEE**, execute and deliver any and all documents that may be necessary or desirable to perfect the title to the foregoing invention, patent applications, and Letters Patent and continuations, divisions, reexaminations, reissues, renewals and extensions thereof in the name of **ASSIGNEE**, including the execution and procurement of any and all further documents evidencing this assignment and sale as may be necessary or desirable for recording the same in the Patent Office of any country concerned, and will make all rightful oaths and declarations and do all lawful acts requisite for procuring the same or for aiding therein.

I/WE HEREBY authorize **ASSIGNEE** to insert in this instrument the Application Number(s) and the filing date(s) of said application for Patents when officially notified thereof.

This document may be executed in any number of counterparts, each of which so executed shall be deemed to be an original, but all such components shall together constitute but one and the same document.

Executed this 30 day of JANUARY, 2018.

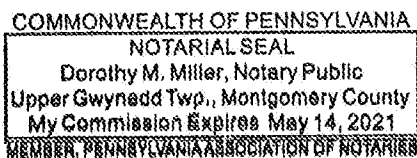
Richard J. Porambo

**ACKNOWLEDGEMENT**

Commonwealth of Pennsylvania )  
County of Montgomery ) s.s.:

On this 30 day of January, 2018, personally appeared before me Richard J. Porambo to me known, and known by me to be the same person described in and who executed the foregoing instrument, and acknowledged that he (she) executed the same, of his (her) own free will for the purpose set forth.

(Seal)



Dorothy M. Miller  
Notary Public

Executed this 30 day of Jan, 2018

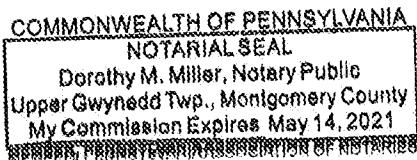
Chitrananda Abeygunawardana

**ACKNOWLEDGEMENT**

Commonwealth of Pennsylvania )  
County of Montgomery ) s.s.:

On this 30 day of January, 2018, personally appeared before me Chitrananda Abeygunawardana to me known, and known by me to be the same person described in and who executed the foregoing instrument, and acknowledged that he (she) executed the same, of his (her) own free will for the purpose set forth.

(Seal)



Dorothy M. Miller  
Notary Public

Executed this 30<sup>th</sup> day of January, 2018

[Signature]

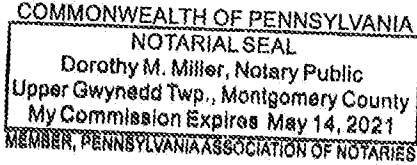
Luwu Kavuka Musey

**ACKNOWLEDGEMENT**

Commonwealth of Pennsylvania )  
County of Montgomery ) s.s.:

On this 30 day of January, 2018, personally appeared before me Luwu Kavuka Musey to me known, and known by me to be the same person described in and who executed the foregoing instrument, and acknowledged that he (she) executed the same, of his (her) own free will for the purpose set forth.

(Seal)



[Signature]  
Notary Public

Executed this 30 day of Jan, 2018

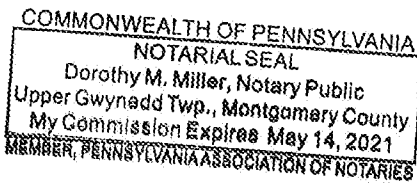
[Signature]  
Michael J. Kosinski

**ACKNOWLEDGEMENT**

Commonwealth of Pennsylvania )  
County of Montgomery ) s.s.:

On this 30 day of January, 2018 personally appeared before me Michael J. Kosinski to me known, and known by me to be the same person described in and who executed the foregoing instrument, and acknowledged that he (she) executed the same, of his (her) own free will for the purpose set forth.

(Seal)



[Signature]  
Notary Public

Executed this 30<sup>th</sup> day of January, 2018

Cui yong

Yadong Adam Cui

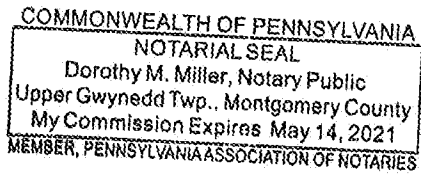
**ACKNOWLEDGEMENT**

Commonwealth of Pennsylvania )  
County of Montgomery ) s.s.: )

On this 30 day of January, 2018 personally appeared before me Yadong Adam Cui to me known, and known by me to be the same person described in and who executed the foregoing instrument, and acknowledged that he (she) executed the same, of his (her) own free will for the purpose set forth.

(Seal)

Dorothy M. Miller  
Notary Public



Accepted and agreed to by ASSIGNEE Merck Sharp & Dohme Corp.

Signature: *Laura M. Ginkel*

Name: Laura M. Ginkel

Title: AVP & Managing Counsel, Legal

Date: 3/4/2020

**ACKNOWLEDGEMENT**

State of New Jersey

County of Union ) s.s.:  
)

On this 4<sup>th</sup> day of March, 2020, personally appeared before me Laura M. Ginkel to me known, and known by me to be the same person(s) described in and who executed the foregoing instrument, and acknowledged that he (she) executed the same, of his (her) own free will for the purpose set forth.

(Seal)

*Barbara Muller*  
Notary Public

**BARBARA MULLER**  
Notary Public of New Jersey  
My Commission Expires on June 13, 2021