

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT5797475

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
ASHOK ARASAPPAN	01/11/2019
IAN M. BELL	12/14/2018
MICHAEL J. BRESLIN	12/14/2018
CHRISTOPHER JAMES BUNGARD	12/14/2018
CHRISTOPHER S. BURGEY	12/14/2018
HARRY R. CHOBANIAN	01/10/2019
JASON M. COX	01/11/2019
ANTHONY T. GINNETTI	12/14/2018
DEODIAL GUY GUIADEEN	01/10/2019
KRISTEN L.G. JONES	01/03/2019
MARK E. LAYTON	01/03/2019
HONG LIU	01/10/2019
JIAN LIU	01/10/2019
JAMES J. PERKINS	01/03/2019
SHAWN J. STACHEL	12/14/2018
LINDA M. SUEN-LAI	12/14/2018
ZHE WU	12/18/2018
RECEIVING PARTY DATA	
Name:	MERCK SHARP & DOHME CORP
Street Address:	126 EAST LINCOLN AVENUE
Internal Address:	RY86-2011A
City:	RAHWAY
State/Country:	NEW JERSEY
Postal Code:	07065
PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	16669598
CORRESPONDENCE DATA	

Fax Number: (732)594-4720

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: 732 594-4000

Email: us_efs@merck.com

Correspondent Name: MERCK & CO., INC.

Address Line 1: P. O. BOX 2000

Address Line 2: RY86-2011A

Address Line 4: RAHWAY, NEW JERSEY 07065

ATTORNEY DOCKET NUMBER:	24658-US-NP
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NAME OF SUBMITTER:	PAMELA SPALDING
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SIGNATURE:	/Pamela Spalding/
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DATE SIGNED:	10/31/2019
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Total Attachments: 21

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WORLDWIDE ASSIGNMENT

WHEREAS, I/WE,

- | | |
|--|---|
| (1) Ashok Arasappan, located at Bridgewater, NJ | (10) Kristen L. G. Jones, located at Orelan, PA |
| (2) Ian M. Bell, located at Harleysville, PA | (11) Mark E. Layton, located at Harleysville, PA |
| (3) Michael J. Breslin, located at Drexel Hill, PA | (12) Hong Liu, located at Hillsborough, NJ |
| (4) Christopher James Bungard, located at Lansdale, PA | (13) Jian Liu, located at Edison, NJ |
| (5) Christopher S. Burgey, located at Ambler, PA | (14) James J. Perkins, located at Churchville, PA |
| (6) Harry R. Chobanian, located at Aberdeen, NJ | (15) Shawn J. Stachel, located at Perkasi, PA |
| (7) Jason M. Cox, located at Whitehouse Station, NJ | (16) Linda M. Suen-Lai, located at Philadelphia, PA |
| (8) Anthony T. Ginnetti, located at Perkasi, PA | (17) Zhe Wu, located at Blue Bell, PA |
| (9) Deodial Guy Guiadeen, located at Chesterfield, NJ | |

(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:

2-AMINO-N-HETEROARYL-NICOTINAMIDES AS NAV1.8 INHIBITORS

and/or in the following application(s):

U.S. Provisional Application No. 62/754,742 filed on 11/2/2018;

U.S. Application No. _____ having a filing date of _____; 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;

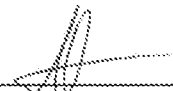
NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, I/we, said ASSIGNOR(S), do each hereby sell, assign and transfer or confirm the grant and assignment to said **ASSIGNEE** my/our entire right, title and interest in all countries of the world in and to my/our 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 11th day of January, 2019.

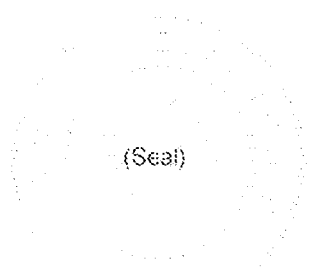


Ashok Arasappan

ACKNOWLEDGEMENT

State of New Jersey)
) s.s.:
County of Union)

On this 11th day of January, 2019, personally appeared before me Ashok Arasappan 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.





Notary Public

DINA A. KUSTER
NOTARY PUBLIC OF NEW JERSEY
My Commission Expires 8/7/2020

Executed this _____ day of _____, 20____.

Ian M. Bell

ACKNOWLEDGEMENT

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

On this _____ day of _____, 20____, personally appeared before me Ian M. Bell 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)

Notary Public

Executed this _____ day of _____, 20_____.

Michael J. Breslin

ACKNOWLEDGEMENT

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

On this _____ day of _____, 20_____, personally appeared before me **Michael J. Breslin** 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)

Notary Public

Executed this _____ day of _____, 20_____.

Christopher James Bungard

ACKNOWLEDGEMENT

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

On this _____ day of _____, 20_____, personally appeared before me **Christopher James Bungard** 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)

Notary Public

Executed this _____ day of _____, 20____.

Christopher S. Burgey

ACKNOWLEDGEMENT

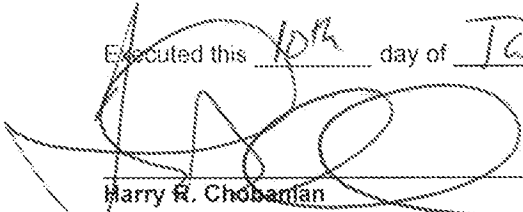
Commonwealth of Pennsylvania)
) s.s.:
County of Montgomery)

On this _____ day of _____, 20____, personally appeared before me Christopher S. Burgey 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)

Notary Public

Executed this 10th day of January, 2019.



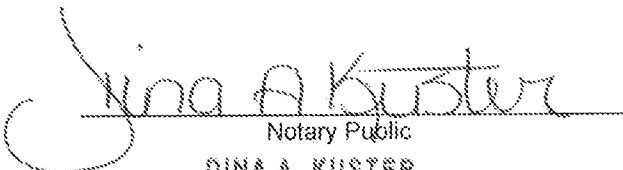
Harry R. Chobanian

ACKNOWLEDGEMENT

State of New Jersey)
) s.s.:
County of Union)

On this 10th day of January, 2019, personally appeared before me Harry R. Chobanian 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)



Notary Public

DINA A. KUSTER
NOTARY PUBLIC OF NEW JERSEY
My Commission Expires 8/7/2020

Executed this 11 day of January, 2019


Jason M. Cox

ACKNOWLEDGEMENT

State of New Jersey)
County of Union) s.s.:

County of Union)
On this 11th day of January, 2019, personally appeared before me Jason M. Cox 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.

(5631)

Dina A. Kuster
Notary Public
DINA A. KUSTER
NOTARY PUBLIC OF NEW JERSEY
My Commission Expires 01/17/2020

Executed this _____ day of _____, 20_____

Anthony T. Ginnelli

ACKNOWLEDGEMENT

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

On this _____ day of _____, 20_____, personally appeared before me Anthony T. Ginnetti 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}

Notary Public

Executed this 10 day of January, 2019.

Deodial Guy Guiadeen
Deodial Guy Guiadeen

ACKNOWLEDGEMENT

State of New Jersey)
) s.s.:
County of Union)

On this 10th day of January, 2019, personally appeared before me Deodial Guy Guiadeen 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)

Jina A Kuster
Notary Public

Executed this _____ day of _____, 20____.

Kristen L. G. Jones

ACKNOWLEDGEMENT

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

On this _____ day of _____, 20____, personally appeared before me Kristen L. G. Jones 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)

Notary Public

Executed this _____ day of _____, 20_____.

Mark E. Layton

ACKNOWLEDGEMENT

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

On this _____ day of _____, 20_____, personally appeared before me Mark E. Layton 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)

Notary Public

Executed this 10 day of January, 2019.

Hong Liu

Hong Liu

ACKNOWLEDGEMENT

State of New Jersey)
) s.s.:
County of Union)

On this 10th day of January, 2019, personally appeared before me Hong Liu 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)

Dina A. Kuster

Notary Public
DINA A. KUSTER
NOTARY PUBLIC OF NEW JERSEY
My Commission Expires 8/7/2020

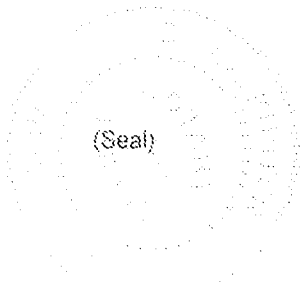
Executed this 10 day of January, 2019.

Jian Liu
Jian Liu

ACKNOWLEDGEMENT

State of New Jersey)
) s.s.:
County of Union)

On this 10th day of January, 2019, personally appeared before me Jian Liu 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.



Jina A. Krieger
Notary Public

Executed this _____ day of _____, 20____.

James J. Perkins

ACKNOWLEDGEMENT

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

On this _____ day of _____, 20____, personally appeared before me James J. Perkins 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)

Notary Public

Attorney Docket No.: 24658

Executed this _____ day of _____, 20____.

Shawn J. Stachel

ACKNOWLEDGEMENT

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

On this _____ day of _____, 20_____, personally appeared before me **Shawn J. Stachel** 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)

Notary Public

Executed this _____ day of _____, 20_____.

Linda M. Suen-Lai

ACKNOWLEDGEMENT

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

On this _____ day of _____, 20_____, personally appeared before me **Linda M. Suen-Lai** 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)

Notary Public

WORLDWIDE ASSIGNMENT

WHEREAS, I/WE,

- | | |
|--|---|
| (1) Ashok Arasappan, located at Bridgewater, NJ | (10) Kristen L. G. Jones, located at Orelan, PA |
| (2) Ian M. Bell, located at Harleysville, PA | (11) Mark E. Layton, located at Harleysville, PA |
| (3) Michael J. Breslin, located at Drexel Hill, PA | (12) Hong Liu, located at Hillsborough, NJ |
| (4) Christopher James Bungard, located at Lansdale, PA | (13) Jian Liu, located at Edison, NJ |
| (5) Christopher S. Burgey, located at Ambler, PA | (14) James J. Perkins, located at Churchville, PA |
| (6) Harry R. Chobanian, located at Aberdeen, NJ | (15) Shawn J. Stachel, located at Perkasio, PA |
| (7) Jason M. Cox, located at Whitehouse Station, NJ | (16) Linda M. Suen-Lai, located at Philadelphia, PA |
| (8) Anthony T. Ginnetti, located at Perkasio, PA | (17) Zhe Wu, located at Blue Bell, PA |
| (9) Deodial Guy Guiadeen, located at Chesterfield, NJ | |

(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:

2-AMINO-N-HETEROARYL-NICOTINAMIDES AS NAV1.8 INHIBITORS

and/or in the following application(s):

U.S. Provisional Application No. 62/754,742 filed on 11/2/2018;

U.S. Application No. _____ having a filing date of _____; 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 _____ day of _____, 20_____.

Ashok Arasappan**ACKNOWLEDGEMENT**

State of New Jersey)
) s.s.:
County of Union)

On this _____ day of _____, 20_____, personally appeared before me Ashok Arasappan 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.

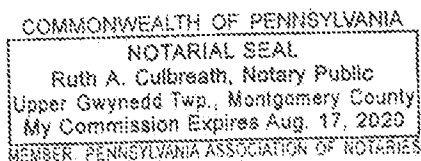
(Seal)

Notary PublicExecuted this 14 day of Dec, 2018.Ian M. Bell
Ian M. Bell**ACKNOWLEDGEMENT**

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

On this 14 day of December, 2018, personally appeared before me Ian M. Bell 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)

Ruth A. Culbreath
Notary Public

Executed this 14TH day of December, 20 18.


 Michael J. Breslin

ACKNOWLEDGEMENT

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

On this 14 day of December, 20 18, personally appeared before me Michael J. Breslin 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) COMMONWEALTH OF PENNSYLVANIA
 NOTARIAL SEAL
 Ruth A. Culbreath, Notary Public
 Upper Gwynedd Twp., Montgomery County
 My Commission Expires Aug. 17, 2020
 MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES


 Notary Public

Executed this 14th day of Dec, 20 18.


 Christopher James Bungard

ACKNOWLEDGEMENT

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

On this 14 day of December, 20 18, personally appeared before me Christopher James Bungard 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) COMMONWEALTH OF PENNSYLVANIA
 NOTARIAL SEAL
 Ruth A. Culbreath, Notary Public
 Upper Gwynedd Twp., Montgomery County
 My Commission Expires Aug. 17, 2020
 MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES


 Notary Public

Executed this 14 day of December, 2018

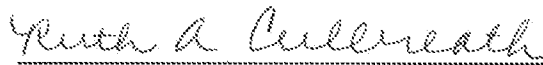

 Christopher S. Burgey

ACKNOWLEDGEMENT

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

On this 14 day of December, 2018, personally appeared before me Christopher S. Burgey 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)
 COMMONWEALTH OF PENNSYLVANIA
 NOTARIAL SEAL
 Ruth A. Culbreath, Notary Public
 Upper Gwynedd Twp., Montgomery County
 My Commission Expires Aug. 17, 2020
 MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES


 Notary Public

Executed this _____ day of _____, 20____

 Harry R. Chobanian

ACKNOWLEDGEMENT

State of New Jersey)
) s.s.:
 County of Union)

On this _____ day of _____, 20____, personally appeared before me Harry R. Chobanian 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)

 Notary Public

Executed this _____ day of _____, 20_____.


Jason M. Cox

ACKNOWLEDGEMENT

State of New Jersey)
) s.s.:
County of Union)

On this _____ day of _____, 20_____, personally appeared before me Jason M. Cox 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)

Notary PublicExecuted this 14 day of December, 2018.

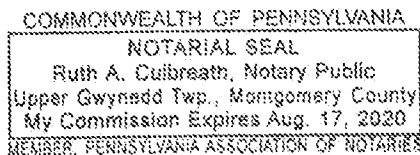
Anthony T. Ginnetti

ACKNOWLEDGEMENT

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

On this 14 day of December, 2018, personally appeared before me Anthony T. Ginnetti 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)

Ruth A. Culbreath

Notary Public

Executed this _____ day of _____, 20_____.

Deodial Guy Guadeen

ACKNOWLEDGEMENT

State of New Jersey)
) s.s.:
 County of Union)

On this _____ day of _____, 20_____, personally appeared before me Deodial Guy Guadeen 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)

Notary PublicExecuted this 03 day of January, 2019.Kristen L. G. Jones
Kristen L. G. Jones

ACKNOWLEDGEMENT

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

On this 3 day of January, 2019, personally appeared before me Kristen L. G. Jones 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)

COMMONWEALTH OF PENNSYLVANIA
 NOTARIAL SEAL
 Ruth A. Culbreath, Notary Public
 Upper Gwynedd Twp., Montgomery County
 My Commission Expires Aug. 17, 2020
 MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

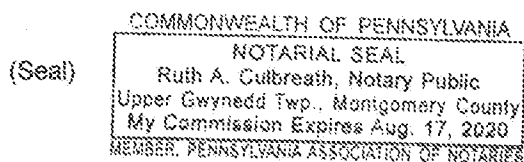
Ruth A. Culbreath
Notary Public

Executed this 3 day of January, 2019.
Mark E. Layton

ACKNOWLEDGEMENT

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

On this 3 day of January, 2019, personally appeared before me Mark E. Layton 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.


Notary Public

Executed this _____ day of _____, 20_____.

Hong Liu

ACKNOWLEDGEMENT

State of New Jersey)
) s.s.:
County of Union)

On this _____ day of _____, 20_____, personally appeared before me Hong Liu 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)

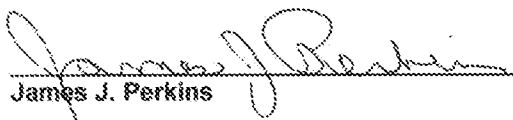
Notary Public

Executed this _____ day of _____, 20_____.

Jian Liu**ACKNOWLEDGEMENT**State of New Jersey)
) s.s.:
County of Union)

On this _____ day of _____, 20_____, personally appeared before me Jian Liu 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)

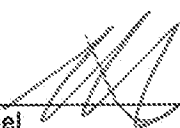
Notary PublicExecuted this 3 day of January, 2019.
James J. Perkins**ACKNOWLEDGEMENT**Commonwealth of Pennsylvania)
) s.s.:
County of Montgomery)

On this 3 day of January, 2019, personally appeared before me James J. Perkins 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)

COMMONWEALTH OF PENNSYLVANIA
NOTARIAL SEAL
Ruth A. Culbreath, Notary Public
Upper Gwynedd Twp., Montgomery County
My Commission Expires Aug. 17, 2020
MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES


Notary Public

Executed this 14 day of December, 2018.
Shawn J. Stachel

ACKNOWLEDGEMENT

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

On this 14 day of December, 2018, personally appeared before me Shawn J. Stachel 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) COMMONWEALTH OF PENNSYLVANIA
NOTARIAL SEAL
Ruth A. Culbreath, Notary Public
Upper Gwynedd Twp., Montgomery County
My Commission Expires Aug. 17, 2020
MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES


Notary PublicExecuted this 14 day of December, 2018.
Linda M. Suen-Lai

ACKNOWLEDGEMENT

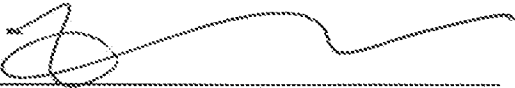
Commonwealth of Pennsylvania)
) s.s.:
County of Montgomery)

On this 14 day of December, 2018, personally appeared before me Linda M. Suen-Lai 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) COMMONWEALTH OF PENNSYLVANIA
NOTARIAL SEAL
Ruth A. Culbreath, Notary Public
Upper Gwynedd Twp., Montgomery County
My Commission Expires Aug. 17, 2020
MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES


Notary Public

Executed this 18 day of December, 20 18.



Zhe Wu

ACKNOWLEDGEMENT

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

On this 18 day of December, 20 18, personally appeared before me Zhe Wu 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)

COMMONWEALTH OF PENNSYLVANIA
NOTARIAL SEAL
Ruth A. Culbreath, Notary Public
Upper Gwynedd Twp., Montgomery County
My Commission Expires Aug. 17, 2020
MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

Ruth A Culbreath
Notary Public

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

Signature: Catherine D. Fitch

Name: Catherine D. Fitch

Title: Managing Counsel, Patents

Date: 1-16-19

ACKNOWLEDGEMENT

State of New Jersey)
County of Union) s.s.:

On this 16th day of January, 2019, personally appeared before me Catherine D. Fitch 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)

Karen Ann Torkildsen
Notary Public

