

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT4440517

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
PHIENG SILIPHAIVANH	12/17/2015
JOEY METHOT	12/17/2015
KATHRYN ANN LIPFORD	12/18/2015
DANIELLE MOLINARI	12/17/2015
DAVID L. SLOMAN	12/15/2015
DAVID WITTER	12/17/2015
HUA ZHOU	01/06/2016
CHRISTOPHER BOYCE	12/14/2015
XIANHAI HUANG	11/18/2015
JONGWON LIM	12/17/2015
DAVID GUERIN	12/20/2015
SYNGENE INTERNATIONAL, LIMITED	09/08/2016
PHARMARON BEIJING CO., LTD.	08/29/2016

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:	15531759

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: 7325944958

Email: us_efs@merck.com

Correspondent Name: MERCK SHARP & DOHME CORP.
Address Line 1: 126 EAST LINCOLN AVENUE
Address Line 2: RY86-2011A
Address Line 4: RAHWAY, NEW JERSEY 07065

ATTORNEY DOCKET NUMBER:	23874-US-PCT
NAME OF SUBMITTER:	STEPHANIE RICARDO
SIGNATURE:	/Stephanie Ricardo/
DATE SIGNED:	06/01/2017

Total Attachments: 34

source=23874USPCT-ASSIGN-MERCK#page1.tif
source=23874USPCT-ASSIGN-MERCK#page2.tif
source=23874USPCT-ASSIGN-MERCK#page3.tif
source=23874USPCT-ASSIGN-MERCK#page4.tif
source=23874USPCT-ASSIGN-MERCK#page5.tif
source=23874USPCT-ASSIGN-MERCK#page6.tif
source=23874USPCT-ASSIGN-MERCK#page7.tif
source=23874USPCT-ASSIGN-MERCK#page8.tif
source=23874USPCT-ASSIGN-MERCK#page9.tif
source=23874USPCT-ASSIGN-MERCK#page10.tif
source=23874USPCT-ASSIGN-MERCK#page11.tif
source=23874USPCT-ASSIGN-MERCK#page12.tif
source=23874USPCT-ASSIGN-MERCK#page13.tif
source=23874USPCT-ASSIGN-MERCK#page14.tif
source=23874USPCT-ASSIGN-MERCK#page15.tif
source=23874USPCT-ASSIGN-MERCK#page16.tif
source=23874USPCT-ASSIGN-MERCK#page17.tif
source=23874USPCT-ASSIGN-MERCK#page18.tif
source=23874USPCT-ASSIGN-MERCK#page19.tif
source=23874USPCT-ASSIGN-MERCK#page20.tif
source=23874USPCT-ASSIGN-MERCK#page21.tif
source=23874USPCT-ASSIGN-MERCK#page22.tif
source=23874USPCT-ASSIGN-MERCK#page23.tif
source=23874USPCT-ASSIGN-MERCK#page24.tif
source=23874USPCT-ASSIGN-MERCK#page25.tif
source=23874USPCT-ASSIGN-MERCK#page26.tif
source=23874USPCT-ASSIGN-MERCK#page27.tif
source=23874USPCT-ASSIGN-MERCK#page28.tif
source=23874USPCT-CONFASSIGN-SYNGENE#page1.tif
source=23874USPCT-CONFASSIGN-SYNGENE#page2.tif
source=23874USPCT-CONFASSIGN-SYNGENE#page3.tif
source=23874USPCT-CONFASSIGN-PHARMARON#page1.tif
source=23874USPCT-CONFASSIGN-PHARMARON#page2.tif
source=23874USPCT-CONFASSIGN-PHARMARON#page3.tif

WORLDWIDE ASSIGNMENT

WHEREAS, I/WE,

- (1) Phieng Siliphaivanh, located at Newton, MA 02461,
- (2) Joey Methot, located at Westwood, MA 02090,
- (3) Kathryn Ann Lipford, located at Boston, MA 02118,
- (4) Danielle Molinari, located at Brookline, MA 02445,
- (5) David L. Sloman, located at Brookline, MA 02446,
- (6) David Witter, located at Norfolk, MA 02056,
- (7) Hua Zhou, located at Acton, MA 01720,
- (8) Christopher Boyce, located at Flemington, NJ 08822,
- (9) Xianhai Huang, located at Warren, NJ 07059,
- (10) Jongwon Lim, located at Lexington, MA 02420,
- (11) David Guerin, located at Natick, MA 01760,

(hereinafter ASSIGNOR(S)), together with **Ganesh Babu Karunakaran**, located at Hosur 635 109, Tamil Nadu, India, **Raman Kumar Bakshi**, located at Edison, NJ 08820, **Ziping Liu**, located at Beijing 100176, China, **Jianmin Fu**, located at Beijing 100176, China, **Zhilong Wan**, located at Beijing 102400, China, and **Wei Liu**, located at Beijing 100176, China, are the inventors of the invention described in an application for Patents having the Attorney Docket Number indicated above and the following Title of the Invention:

ERK INHIBITORS

and in the following application(s):

PCT International Application No. PCT/CN2014/093860 having a filing date of December 15, 2014

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 17 day of December, 2015

[Signature]

Phieng Siliphaivanh

ACKNOWLEDGEMENT

Commonwealth of Massachusetts)
County of Suffolk) s.s.:

On this 17 day of December, 2015, personally appeared before me **Phieng Siliphaivanh**, 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)

[Signature]

Notary Public
RHONDA YANOVITCH
Notary Public
COMMONWEALTH OF MASSACHUSETTS
My Commission Expires
March 18, 2022

Executed this 17 day of December, 2015

[Signature]

Joey Methot

ACKNOWLEDGEMENT

Commonwealth of Massachusetts)
County of Suffolk) s.s.:

On this 17 day of December, 2015, personally appeared before me **Joey Methot**, 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)

[Signature]

Notary Public
RHONDA YANOVITCH
Notary Public
COMMONWEALTH OF MASSACHUSETTS
My Commission Expires
March 18, 2022

Executed this ____ day of _____, 20__

Kathryn Ann Lipford

ACKNOWLEDGEMENT

Commonwealth of Massachusetts)
County of Suffolk) s.s.:

On this ____ day of _____, 20__, personally appeared before me **Kathryn Ann Lipford**, 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 17 day of December, 2015.

Danielle Molinari
Danielle Molinari

ACKNOWLEDGEMENT

Commonwealth of Massachusetts)
County of Suffolk) s.s.:

On this 17 day of December, 2015, personally appeared before me **Danielle Molinari**, 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)

Rhonda Vanovitch
RHONDA VANOVTCH
Notary Public
COMMONWEALTH OF MASSACHUSETTS
My Commission Expires
March 18, 2022

Executed this 15 day of DECEMBER, 2015

[Handwritten Signature]

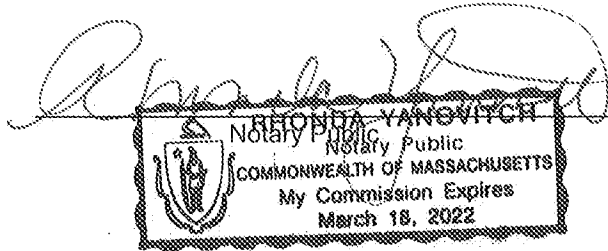
David L. Sloman

ACKNOWLEDGEMENT

Commonwealth of Massachusetts)
County of Suffolk) s.s.:

On this 15 day of DECEMBER, 2015, personally appeared before me **David L. Sloman**, 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)



Executed this 17 day of December, 2015

[Handwritten Signature]

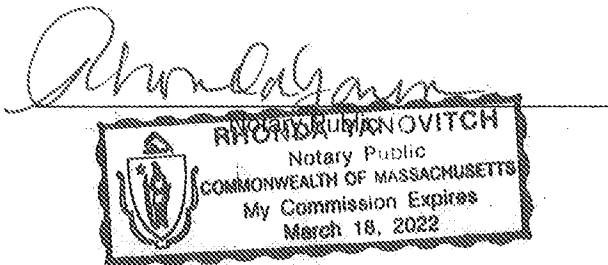
David Witter

ACKNOWLEDGEMENT

Commonwealth of Massachusetts)
County of Suffolk) s.s.:

On this 17 day of December, 2015, personally appeared before me **David Witter**, 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)



Executed this 10 day of January, 2016

[Handwritten Signature]

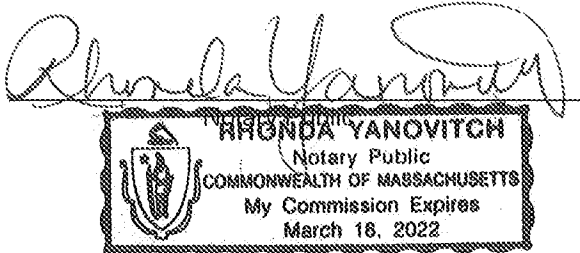
Hua Zhou

ACKNOWLEDGEMENT

Commonwealth of Massachusetts)
County of Suffolk) s.s.:

On this 10 day of January, 2016, personally appeared before me **Hua Zhou**, 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)



Executed this _____ day of _____, 20_____.

Christopher Boyce

ACKNOWLEDGEMENT

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

On this _____ day of _____, 20_____, personally appeared before me **Christopher Boyce**, 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 _____, 2015

Xianhai Huang

ACKNOWLEDGEMENT

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

On this ____ day of _____, 2015, personally appeared before me **Xianhai Huang**, 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 17 day of DECEMBER, 2015.

[Signature]

Jongwon Lim

ACKNOWLEDGEMENT

Commonwealth of Massachusetts)
County of Suffolk) s.s.:

On this 17 day of DECEMBER, 2015, personally appeared before me **Jongwon Lim**, 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)

[Signature]

IRYENNA YANOVITCH
Notary Public
COMMONWEALTH OF MASSACHUSETTS
My Commission Expires
March 18, 2022

Executed this ____ day of _____, 20__

_____ **David Guerin**

ACKNOWLEDGEMENT

Commonwealth of Massachusetts)
) s.s.:
County of Suffolk)

On this ____ day of _____, 20__, personally appeared before me **David Guerin**, 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

WORLDWIDE ASSIGNMENT

WHEREAS, I/WE,

- (1) Phieng Siliphaivanh, located at Newton, MA 02461,
- (2) Joey Methot, located at Westwood, MA 02090,
- (3) Kathryn Ann Lipford, located at Boston, MA 02118,
- (4) Danielle Molinari, located at Brookline, MA 02445,
- (5) David L. Sloman, located at Brookline, MA 02446,
- (6) David Witter , located at Norfolk, MA 02056,
- (7) Hua Zhou, located at Acton, MA 01720,
- (8) Christopher Boyce, located at Flemington, NJ 08822,
- (9) Xianhai Huang , located at Warren, NJ 07059,
- (10) Jongwon Lim, located at Lexington, MA 02420,
- (11) David Guerin, located at Natick, MA 01760,

(hereinafter ASSIGNOR(S)), together with **Ganesh Babu Karunakaran**, located at Hosur 635 109, Tamil Nadu, India, **Raman Kumar Bakshi**, located at Edison, NJ 08820, **Ziping Liu** , located at Beijing 100176, China, **Jianmin Fu** , located at Beijing 100176, China, **Zhilong Wan** , located at Beijing 102400, China, and **Wei Liu** , located at Beijing 100176, China, are the inventors of the invention described in an application for Patents having the Attorney Docket Number indicated above and the following Title of the Invention:

ERK INHIBITORS

and in the following application(s):

PCT International Application No. PCT/CN2014/093860 having a filing date of December 15, 2014

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____

Phieng Siliphaivanh

ACKNOWLEDGEMENT

Commonwealth of Massachusetts)
County of Suffolk) s.s.:
)

On this ____ day of _____, 20____, personally appeared before me **Phieng Siliphaivanh**, 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____.

Joey Methot

ACKNOWLEDGEMENT

Commonwealth of Massachusetts)
County of Suffolk) s.s.:
)

On this ____ day of _____, 20____, personally appeared before me **Joey Methot**, 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 18 day of December, 2015

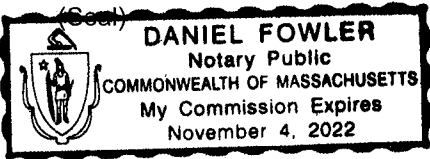
Kathryn A Lipford
Kathryn Ann Lipford

ACKNOWLEDGEMENT

Commonwealth of Massachusetts)
County of Suffolk) s.s.:
)

On this 18 day of December, 2015, personally appeared before me **Kathryn Ann Lipford**, 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.

[Signature]
Notary Public



Executed this ____ day of _____, 20____.

Danielle Molinari

ACKNOWLEDGEMENT

Commonwealth of Massachusetts)
County of Suffolk) s.s.:
)

On this ____ day of _____, 20____, personally appeared before me **Danielle Molinari**, 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__

David L. Sloman

ACKNOWLEDGEMENT

Commonwealth of Massachusetts)
County of Suffolk) s.s.:
)

On this ____ day of _____, 20__, personally appeared before me **David L. Sloman**, 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__.

David Witter

ACKNOWLEDGEMENT

Commonwealth of Massachusetts)
County of Suffolk) s.s.:
)

On this ____ day of _____, 20__, personally appeared before me **David Witter**, 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__

Hua Zhou

ACKNOWLEDGEMENT

Commonwealth of Massachusetts)
) s.s.:
County of Suffolk)

On this ____ day of _____, 20__, personally appeared before me **Hua Zhou**, 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 Boyce

ACKNOWLEDGEMENT

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

On this ____ day of _____, 20__, personally appeared before me **Christopher Boyce**, 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 _____, 2015

Xianhai Huang

ACKNOWLEDGEMENT

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

On this ____ day of _____, 2015, personally appeared before me **Xianhai Huang**, 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__.

Jongwon Lim

ACKNOWLEDGEMENT

Commonwealth of Massachusetts)
County of Suffolk) s.s.:

On this ____ day of _____, 20__, personally appeared before me **Jongwon Lim**, 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____

David Guerin

ACKNOWLEDGEMENT

Commonwealth of Massachusetts)
County of Suffolk) s.s.:
)

On this ____ day of _____, 20____, personally appeared before me **David Guerin**, 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

WORLDWIDE ASSIGNMENT

WHEREAS, I/WE,

- (1) Phieng Siliphaivanh, located at Newton, MA 02461,
- (2) Joey Methot, located at Westwood, MA 02090,
- (3) Kathryn Ann Lipford, located at Boston, MA 02118,
- (4) Danielle Molinari, located at Brookline, MA 02445,
- (5) David L. Sloman, located at Brookline, MA 02446,
- (6) David Witter, located at Norfolk, MA 02056,
- (7) Hua Zhou, located at Acton, MA 01720,
- (8) Christopher Boyce, located at Flemington, NJ 08822,
- (9) Xianhai Huang, located at Warren, NJ 07059,
- (10) Jongwon Lim, located at Lexington, MA 02420,
- (11) David Guerin, located at Natick, MA 01760,

(hereinafter ASSIGNOR(S)), together with **Ganesh Babu Karunakaran**, located at Hosur 635 109, Tamil Nadu, India, **Raman Kumar Bakshi**, located at Edison, NJ 08820, **Ziping Liu**, located at Beijing 100176, China, **Jianmin Fu**, located at Beijing 100176, China, **Zhilong Wan**, located at Beijing 102400, China, and **Wei Liu**, located at Beijing 100176, China, are the inventors of the invention described in an application for Patents having the Attorney Docket Number indicated above and the following Title of the Invention:

ERK INHIBITORS

and in the following application(s):

PCT International Application No. **PCT/CN2014/093860** having a filing date of **December 15, 2014**

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__

Phieng Siliphaivanh

ACKNOWLEDGEMENT

Commonwealth of Massachusetts)
County of Suffolk) s.s.:
)

On this ____ day of _____, 20__, personally appeared before me **Phieng Siliphaivanh**, 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__.

Joey Methot

ACKNOWLEDGEMENT

Commonwealth of Massachusetts)
County of Suffolk) s.s.:
)

On this ____ day of _____, 20__, personally appeared before me **Joey Methot**, 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__

David L. Sloman

ACKNOWLEDGEMENT

Commonwealth of Massachusetts)
) s.s.:
County of Suffolk)

On this ____ day of _____, 20__, personally appeared before me **David L. Sloman**, 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__.

David Witter

ACKNOWLEDGEMENT

Commonwealth of Massachusetts)
) s.s.:
County of Suffolk)

On this ____ day of _____, 20__, personally appeared before me **David Witter**, 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_____

Hua Zhou

ACKNOWLEDGEMENT


Commonwealth of Massachusetts)
) s.s.:
County of Suffolk)

On this _____ day of _____, 20_____, personally appeared before me **Hua Zhou**, 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 14th day of December, 2015.



Christopher Boyce

ACKNOWLEDGEMENT

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

On this 14th day of December, 2015, personally appeared before me **Christopher Boyce**, 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

BARBARA MULLER
Notary Public of New Jersey
My Commission Expires on June 13, 2016

Executed this 18th day of November, 2015


.....
Xianhai Huang

ACKNOWLEDGEMENT

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

On this 18th day of November, 2015, personally appeared before me Xianhai Huang, 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

BARBARA MULLER
Notary Public of New Jersey
My Commission Expires on June 13, 2016

Executed this ____ day of _____, 2015.

.....
Jongwon Lim

ACKNOWLEDGEMENT

Commonwealth of Massachusetts)
County of Suffolk) s.s.:

On this ____ day of _____, 2015, personally appeared before me Jongwon Lim, 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__

David Guerin

ACKNOWLEDGEMENT

Commonwealth of Massachusetts)
) s.s.:
County of Suffolk)

On this ____ day of _____, 20__, personally appeared before me **David Guerin**, 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

WORLDWIDE ASSIGNMENT

WHEREAS, I/WE,

- (1) Phieng Siliphaivanh, located at Newton, MA 02461,
- (2) Joey Methot, located at Westwood, MA 02090,
- (3) Kathryn Ann Lipford, located at Boston, MA 02118,
- (4) Danielle Molinari, located at Brookline, MA 02445,
- (5) David L. Sloman, located at Brookline, MA 02446,
- (6) David Witter, located at Norfolk, MA 02056,
- (7) Hua Zhou, located at Acton, MA 01720,
- (8) Christopher Boyce, located at Flemington, NJ 08822,
- (9) Xianhai Huang, located at Warren, NJ 07059,
- (10) Jongwon Lim, located at Lexington, MA 02420,
- (11) David Guerin, located at Natick, MA 01760,

(hereinafter ASSIGNOR(S)), together with **Ganesh Babu Karunakaran**, located at Hosur 635 109, Tamil Nadu, India, **Raman Kumar Bakshi**, located at Edison, NJ 08820, **Ziping Liu**, located at Beijing 100176, China, **Jianmin Fu**, located at Beijing 100176, China, **Zhilong Wan**, located at Beijing 102400, China, and **Wei Liu**, located at Beijing 100176, China, are the inventors of the invention described in an application for Patents having the Attorney Docket Number indicated above and the following Title of the Invention:

ERK INHIBITORS

and in the following application(s):

PCT International Application No. PCT/CN2014/093860 having a filing date of December 15, 2014

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__

Phieng Siliphaivanh

ACKNOWLEDGEMENT

Commonwealth of Massachusetts)
County of Suffolk) s.s.:
)

On this ____ day of _____, 20__, personally appeared before me **Phieng Siliphaivanh**, 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__.

Joey Methot

ACKNOWLEDGEMENT

Commonwealth of Massachusetts)
County of Suffolk) s.s.:
)

On this ____ day of _____, 20__, personally appeared before me **Joey Methot**, 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__

David L. Sloman

ACKNOWLEDGEMENT

Commonwealth of Massachusetts)
) s.s.:
County of Suffolk)

On this ___ day of _____, 20__, personally appeared before me **David L. Sloman**, 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__.

David Witter

ACKNOWLEDGEMENT

Commonwealth of Massachusetts)
) s.s.:
County of Suffolk)

On this ___ day of _____, 20__, personally appeared before me **David Witter**, 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__

Hua Zhou

ACKNOWLEDGEMENT

Commonwealth of Massachusetts)
) s.s.:
County of Suffolk)

On this ____ day of _____, 20__, personally appeared before me **Hua Zhou**, 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 Boyce

ACKNOWLEDGEMENT

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

On this ____ day of _____, 20__, personally appeared before me **Christopher Boyce**, 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 _____, 2015

Xianhai Huang

ACKNOWLEDGEMENT

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

On this ____ day of _____, 2015, personally appeared before me **Xianhai Huang**, 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__.

Jongwon Lim

ACKNOWLEDGEMENT

Commonwealth of Massachusetts)
County of Suffolk) s.s.:

On this ____ day of _____, 20__, personally appeared before me **Jongwon Lim**, 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 20th day of December, 2015

David Guerin
David Guerin

ACKNOWLEDGEMENT

Commonwealth of Massachusetts)
County of Suffolk) s.s.:

On this 20th day of December, 2015, personally appeared before me **David Guerin**, 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)

Raymond C. Negrón
Notary Public



RAYMOND C. NEGRON
Notary Public
Commonwealth of Massachusetts
My Commission Expires June 24, 2022

CONFIRMATORY ASSIGNMENT

WHEREAS,

Syngene International, Limited, an Indian corporation with its registered office at Biocon Park, Plot No. 2 & 3, Bommasandra Industrial Area IV phase, Jigani Link Road, Bangalore 560 099, India, ("Assignor") under the terms of the Master Full Time Equivalents Agreement for Services, Amendment No. 1, Amendment No. 2, and Amendment No. 3 Agreements between Syngene International, Limited and Merck Sharp & Dohme Corp., formerly known as Merck & Co., Inc., ("Assignee") with effective dates of January 1, 2010, August 1, 2011, June 6, 2013, and June 6, 2013 ("Agreements") did assign to Assignee all of its rights in any and all inventions set forth and described in an application for patent having the attorney docket number indicated above and the following Title of Invention:

ERK INHIBITORS

and/or in the following application(s):

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

U.S. Application No. 15/531,759 having a filing date of 05/31/2017; and

PCT International Application No. PCT/CN2014/093860 having a filing date of 15 December 2014; ("Inventions").

AND WHEREAS, to confirm the assignment, Assignor has agreed to execute and deliver this assignment;

NOW THEREFORE, in consideration of the good and valuable consideration provided under the Agreement, the receipt and sufficiency of which are hereby acknowledged, Assignor hereby confirms that it has assigned to Assignee its entire right, title, interest, property and benefit in and to the Inventions and the associated patent application(s), including any and all rights relating thereto that may arise at law, all rights of action resulting from prior infringement or other unauthorized use thereof, any and all applications corresponding to the Inventions worldwide, whether in the form of divisions, continuations, re-examinations, re-issues and extensions thereof, any and all letters patent and like industrial property registrations that may issue, be granted or result from said corresponding applications for the Inventions worldwide (hereinafter referred to as the Patents), and any and all rights of priority exercisable in any jurisdiction resulting from the filing of the patent application(s) associated with Inventions, the said corresponding applications and any previously filed applications in respect of the Inventions under international conventions, treaties or otherwise, the same to be held and enjoyed as fully and exclusively as the same would have been held and enjoyed by Assignor had this assignment not been made;

AND ASSIGNOR, on behalf of itself and its successors, assigns, nominees, or other legal representatives, does hereby covenant and agree to perform all lawful acts and duties and to execute and deliver without further consideration such further lawful assignments, instruments, assurances, applications and other documents as may reasonably be required by said Assignee, or by its successors, assigns, nominees, or other legal representatives, to file patent application(s) associated with Inventions, obtain said Patents and vest or secure the same in Assignee, and in Assignee's successors, assigns, nominees or other legal representatives.

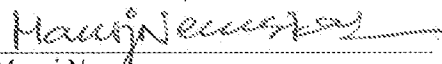
AND ASSIGNOR does hereby authorize any official whose duty it is to grant patents or industrial property registrations, to grant said Patents to the Assignee, and to Assignee's successors, assigns, nominees or other legal representatives.

AND ASSIGNOR, on behalf of itself and its successors, assigns, nominees, or other legal representatives, does hereby authorize said Assignee, its successors, assigns, nominees or other legal representatives, including its patent agents, to amend the present assignment document to insert or correct the filing date, serial number or other identifying information of the associated patent application(s) and/or Patents as may be needed to record same.

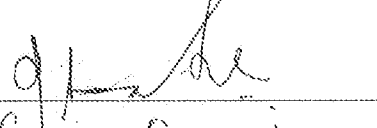
IN WITNESS WHEREOF, Assignor has by its authorized signing officer executed this confirmatory assignment, and Assignee has by its authorized officer accepted this confirmatory assignment.

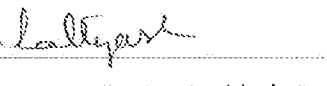
Assignor: Syngene International, Limited

Executed this 08th day of September, 2016.

Signature: 
Name: Manoj Nruskar
Title: Chief Operating Officer

Personally appeared before me the above named Manoj Nruskar, to me known and known to me to be the person who executed the foregoing instrument and acknowledged said instrument to be his/her free act and deed this 08th day of September, 2016.

Witness 1:
Signature: 
Name: GANESH BABU K
Date: 08 SEPTEMBER 2016

Witness 2:
Signature: 
Name: P SATHYA SHANKER
Date: 08 SEPTEMBER 2016

Assignee: Merck Sharp & Dohme Corp.

Executed this 21 day of March, 2017

Signature: Catherine D. Fitch
Name: Catherine D. Fitch
Title: Managing Counsel, Patents

Personally appeared before me the above named Catherine D. Fitch to me known and known to me to be the person who executed the foregoing instrument and acknowledged said instrument to be his/her free act and deed this 21 day of March, 2017.

Witness 1:

Signature: Michelle A. Sisko
Name: Michelle A. Sisko
Date: 3/21/2017

Witness 2:

Signature: Stephanie Ricardo
Name: Stephanie Ricardo
Date: 3/21/2017

CONFIRMATORY ASSIGNMENT

WHEREAS,

Pharmaron Beijing Co., Ltd., a Chinese corporation with offices at 6 Tai-He Road, BDA, Beijing, 100176 P. R. China, ("Assignor") under the terms of Amendment No. 7 of Master Full Time Equivalent Agreement For Services between Assignor's parent company Pharmaron, Inc., a Kentucky corporation with offices at 201 East Jefferson Street, Louisville, KY 40202 and Merck Sharp & Dohme Corp., formerly known as Merck & Co., Inc., ("Assignee") with an effective date of Aug. 1, 2012 ("Agreement") did assign to Assignee all of its rights in any and all inventions set forth and described in an application for patent having the attorney docket number indicated above and the following Title of Invention:

ERK INHIBITORS

and/or in the following application(s):

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

U.S. Application No. 15/531,759 having a filing date of 05/31/2017; and

PCT International Application No. PCT/CN2014/093860 having a filing date of 15 December 2014; ("Inventions").

AND WHEREAS, to confirm the assignment, Assignor has agreed to execute and deliver this assignment;

NOW THEREFORE, in consideration of the good and valuable consideration provided under the Agreement, the receipt and sufficiency of which are hereby acknowledged, Assignor hereby confirms that it has assigned to Assignee its entire right, title, interest, property and benefit in and to the Inventions and the associated patent application(s), including any and all rights relating thereto that may arise at law, all rights of action resulting from prior infringement or other unauthorized use thereof, any and all applications corresponding to the Inventions worldwide, whether in the form of divisions, continuations, re-examinations, re-issues and extensions thereof, any and all letters patent and like industrial property registrations that may issue, be granted or result from said corresponding applications for the Inventions worldwide (hereinafter referred to as the Patents), and any and all rights of priority exercisable in any jurisdiction resulting from the filing of the patent application(s) associated with Inventions, the said corresponding applications and any previously filed applications in respect of the Inventions under international conventions, treaties or otherwise, the same to be held and enjoyed as fully and exclusively as the same would have been held and enjoyed by Assignor had this assignment not been made;

AND ASSIGNOR, on behalf of itself and its successors, assigns, nominees, or other legal representatives, does hereby covenant and agree to perform all lawful acts and duties and to execute and deliver without further consideration such further lawful assignments, instruments, assurances, applications and other documents as may reasonably be required by said Assignee, or by its successors, assigns, nominees, or other legal representatives, to file patent application(s) associated with Inventions, obtain said Patents and vest or secure the same in Assignee, and in Assignee's successors, assigns, nominees or other legal representatives.

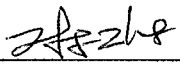
AND ASSIGNOR does hereby authorize any official whose duty it is to grant patents or industrial property registrations, to grant said Patents to the Assignee, and to Assignee's successors, assigns, nominees or other legal representatives.

AND ASSIGNOR, on behalf of itself and its successors, assigns, nominees, or other legal representatives, does hereby authorize said Assignee, its successors, assigns, nominees or other legal representatives, including its patent agents, to amend the present assignment document to insert or correct the filing date, serial number or other identifying information of the associated patent application(s) and/or Patents as may be needed to record same.

IN WITNESS WHEREOF, Assignor has by its authorized signing officer executed this confirmatory assignment, and Assignee has by its authorized officer accepted this confirmatory assignment.

Assignor: **Pharmaron Beijing Co., Ltd.**

Executed this 29th day of August, 2016.

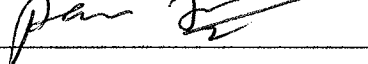
Signature: 

Name: JANE J. ZHANG

Title: C.O.O.

Personally appeared before me the above named Jane Zhang to me known and known to me to be the person who executed the foregoing instrument and acknowledged said instrument to be his/her free act and deed this 29th day of August, 2016.

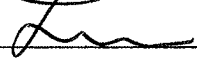
Witness 1:

Signature: 

Name: Jingwen PAN

Date: Aug 29, 2016

Witness 2:

Signature: 

Name: Joanne L2

Date: 8/29/2016

Assignee: Merck Sharp & Dohme Corp.

Executed this 21 day of March, 2017.

Signature: Catherine D. Fitch
Name: Catherine D. Fitch
Title: Managing Counsel, Patents

Personally appeared before me the above named Catherine D. Fitch to me known and known to me to be the person who executed the foregoing instrument and acknowledged said instrument to be his/her free act and deed this 21 day of March, 2017.

Witness 1:

Signature: Michelle A. Sisko
Name: Michelle A. Sisko
Date: 3/21/2017

Witness 2:

Signature: Stephanie Ricardo
Name: Stephanie Ricardo
Date: 3/21/2017