504199612 01/27/2017

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
WEIGUO LIU	07/16/2015
SCOTT D EDMONDSON	07/16/2015
ZHUYAN GUO	07/16/2015
ALAN HRUZA	07/16/2015
SUNG-SAU SO	07/16/2015
WANYING SUN	07/20/2015
AMJAD ALI	07/20/2015
RONGZE KUANG	07/16/2015
YING-DUO GAO	07/16/2015
ANTHONY K OGAWA	07/16/2015

RECEIVING PARTY DATA

Name:	MERCK SHARP & DOHME CORP.
Street Address:	126 EAST LINCOLN AVENUE
Internal Address:	PO BOX 2000
City:	RAHWAY
State/Country:	NEW JERSEY
Postal Code:	07065

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15329635

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: 732-594-4488
Email: us_efs@merck.com

Correspondent Name: MERCK
Address Line 1: P O BOX 2000

Address Line 4: RAHWAY, NEW JERSEY 07065-0907

PATENT REEL: 041100 FRAME: 0978

504199612

ATTORNEY DOCKET NUMBER:	23802-US-PCT
NAME OF SUBMITTER:	TANYA L TORRES
SIGNATURE:	/TANYA L. TORRES/
DATE SIGNED:	01/27/2017
Total Attachments: 6	
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PATENT REEL: 041100 FRAME: 0979

WORLDWIDE ASSIGNMENT

WHEREAS, I/WE,

(1) Weiguo Liu. located at Princeton, New Jersey, Scott D. Edmondson, located at Clark, New Jersey, (2)(3) Zhuyan Guo, located at Scotch Plains, New Jersey, (4) Alan Hruza, located at Hackettstown, New Jersey, (5) Sung-Sau So, located at Verona, New Jersey, (6) Wanying Sun, located at Edison, New Jersey, located at Freehold, New Jersey, (7) Amjad Ali, (8) Rongze Kuang, located at Green Brook, New Jersey, (9) Ying-Duo Gao, located at Holmdel, New Jersey,

(10) Anthony K. Ogawa, located at New Providence, New Jersey,

(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:

Factor XIa Inhibitors

and/or in the following application(s):

U.S. Provisional Application No. 62/029	,772 filed on 07-28-2014;	
U.S. Application No.	having a filing date of	; and
PCT International Application No	having a fil	ing 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	_, 2015.
Weiguo Liu	
ACKNOWLEDGEMENT	
State of New Jersey)	
) s.s.: County of Union)	
On this day of known by me to be the same person described he (she) executed the same, of his (her) own from	, 2015, personally appeared before me Weiguo Liu to me known, and in and who executed the foregoing instrument, and acknowledged that see will for the purpose set forth.
(Seat)	Notary Public
	MICHELLE ANN SISKO Notary Public of New Jersey My Commission Expires on October 24, 2017
Executed this day of Scott 9. Edmondson	_, 2015.
ACKNOWLEDGEMENT	
State of New Jersey)) s.s.:	
County of Union)	
known, and known by me to be the same perso	_, 2015, personally appeared before me Scott D. Edmondson to me n described in and who executed the foregoing instrument, and , of his (her) own free will for the purpose set forth.
(Seal)	
	Notary Public
	MICHELLE ANN SISKO Notary Public of New Jersey

My Commission Expires on October 24, 2017

PATENT

Executed this day of	, 2015.
The D	
Zhuyan Guo	
ACKNOWLEDGEMENT	
State of New Jersey	
County of Union) s.s.:	
On this day of and known by me to be the same person described that he (she) executed the same, of his (her) of	, 2015, personally appeared before me Zhuyan Guo to me known, cribed in and who executed the foregoing instrument, and acknowledged own free will for the purpose set forth.
(Seal)	Notary Public
	rvotery i done
	MICHELLE ANN SISKO Notary Public of New Jersey My Commission Expires on October 24, 2017
Executed this day of Alan Hruza	, 2014.
ACKNOWLEDGEMENT	
State of New Jersey)	
County of Union) s.s.:	
On this day of known by me to be the same person described he (she) executed the same, of his (her) own f	, 2015, personally appeared before me Alan Hruza to me known, and d in and who executed the foregoing instrument, and acknowledged that free will for the purpose set forth.
(Seal)	Mesessa an Joh
	Notary Public
	MICHELLE ANN SISKO Notary Public of New Jersey My Commission Expires on October 24, 2017

Executed this day of	f, 2015.
Executed this <u>he</u> day of the second of the	Jan 1
Sung-Sau So	
ACKNOWLEDGEMENT	
State of New Jersey)
County of Union) s.s.:)
and known by me to be t	y of, 2015, personally appeared before me Sung-Sau So to me known, ne same person described in and who executed the foregoing instrument, and acknowledged e same, of his (her) own free will for the purpose set forth.
(Seal)	<u> Manja Ona Jako</u>
	Notary Public
	MICHELLE ANN SISKO Notary Public of New Jersey My Commission Expires on October 24, 2017
Executed this <u>10</u> day of the control of the contro	f <u>Tuly</u> , 2015.
ACKNOWLEDGEMENT	
State of New Jersey County of Union)) s.s.: }
On this d and known by me to be t	, 2015, personally appeared before me Wanying Sun to me known, ne same person described in and who executed the foregoing instrument, and acknowledged e same, of his (her) own free will for the purpose set forth.
(Seal)	Notary Public
	Notary Public
	MICHELLE ANN SISKO Notary Public of New Jersey My Commission Propries on October 24, 2017

PATENT

Executed this <u>day</u> of <u>day</u>	2015.
Amjad Ali	
ACKNOWLEDGEMENT	
State of New Jersey) s.s.:	
County of Union)	
On this day of known by me to be the same person described in he (she) executed the same, of his (her) own free	, 2015, personally appeared before me Amjad Ali to me known, and and who executed the foregoing instrument, and acknowledged that will for the purpose set forth.
(Seal)	Notary Public
	MICHELLE ANN SISKO
	Neiary Public of New Jersey My Commission Expires on October 24, 2017
Executed this 1/2 day of July Rongze Kuang	2015.
ACKNOWLEDGEMENT	
State of New Jersey)	
) s.s.: County of Union)	
On this day of day of and known by me to be the same person describ that he (she) executed the same, of his (her) owr	, 2015, personally appeared before me Rongze Kuang to me known, ed in and who executed the foregoing instrument, and acknowledged a free will for the purpose set forth.
(Seal)	Miesele Que Sudo
	Notary Public
	a deal was a marks olowa

MICHELLE ANN SISKO Notary Public of New Jersey My Commission Expires on October 24, 2017

PATENT Page 5 of 6
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Executed this <u>I(</u> day	of <u>() alg</u> 2015.
Ying-Duo Guo	
ACKNOWLEDGEMENT	-
State of New Jersey)) s.s.:
County of Union	
On this //w of and known by me to be that he (she) executed the	lay of <u>falg</u> , 2015, personally appeared before me Ying-Duo Guo to me knowledge the same person described in and who executed the foregoing instrument, and acknowledge he same, of his (her) own free will for the purpose set forth.
(Seal)	M
	Notary Public
	MICHELLE ANN SISKO
	Notary Public of New Jersey My Commission Expires on October 24, 2017
Anthony K. Ogawa	of <u> </u>
ACKNOWLEDGEMENT	
State of New Jersey)
County of Union) s.s.:)
MILOWIT, GIRL KHOWIT DY THE	ay of, 2015, personally appeared before me Anthony K. Ogawa to me to be the same person described in and who executed the foregoing instrument, and he) executed the same, of his (her) own free will for the purpose set forth.
(Seal)	
	Notary Public
	MICHELLE ANN SISKO Notary Public of New Jersey My Commission Expires on October 24, 2017

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RECORDED: 01/27/2017 arp & Dohme. Single Assignee Worldwide* (Assignment) Merck. Share & Dommer. Dro. 04/11/00 FRAME: 0985