504640555 11/14/2017

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4687275

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
DONG-MING SHEN	04/07/2016
XIAOXIA QIAN	04/13/2016
BART HARPER	04/07/2016
MENG YANG	04/07/2016
DEPING WANG	04/13/2016

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:	15573858

CORRESPONDENCE DATA

Fax Number:

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:
 732-594-4909

 Email:
 us_efs@merck.com

Correspondent Name: MERCK
Address Line 1: P O BOX 2000
Address Line 2: RY862011A

Address Line 4: RAHWAY, NEW JERSEY 07065-0907

ATTORNEY DOCKET NUMBER:	24078-MSDCORP
NAME OF SUBMITTER:	CHRISTINE KANELLIDIS
SIGNATURE:	/christinekanellidis/
DATE SIGNED:	11/14/2017

PATENT 504640555 REEL: 044115 FRAME: 0162

Total Attachments: 6

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PATENT REEL: 044115 FRAME: 0163

WORLDWIDE ASSIGNMENT

WHEREAS, I/WE,

- (1) Dong-Ming Shen, located at Edison, NJ,
- (2) XiaoXia Qian, located at New York, NY,
- (3) Bart Harper, located at New, York, NY,

(4) Meng Yang, located at Westfield, NJ, (5) Deping Wang, located at Furlong, PA,
(hereinafter ASSIGNOR(S)), together with Yingjian Bo, located at Beijing, China,
PYRIMIDINONE AMIDE COMPOUNDS AS PDE2 INHIBITORS
and in the following application(s):
U.S. Provisional Application No. filed on ; U.S. Application No. having a filing date of; and PCT International Application No. PCT/USCN2015/079091 having a filing date of May 15, 2015.

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 W. , 2	2016.
25	Butt
Dong- Ming Shen	Bart Harper 7
Meng Yang	Deping Wang
ACKNOWLEDGEMENT SHALL OF MUSSING County of UNION	\$ s.s.:
Harper, Meng Yang, Deping Wang to me know	, 2016, personally appeared before me Dong-Ming Shen, Bart wn, and known by me to be the same person(s) described in and who edged that he (she) executed the same, of his (her) own free will for the
(Seal) CHRISTINE M. KANELLIDIS Notary Public of New Jersey LD. # 2442057 Commission Expires January 9, 2019	Ording M. Kandled
Executed this day of	,, 2016.
XiaoXia Qian	
ACKNOWLEDGEMENT	
of) [,]
County of) S.S.:)
On this day of and known by me to be the same person descrit that he (she) executed the same, of his (her) ow	_, 2016, personally appeared before me XiaoXia Qian to me known, bed in and who executed the foregoing instrument, and acknowledged in free will for the purpose set forth.
(Seal)	
	Notary Public

REEL: 044115 FRAME: 0165

WORLDWIDE ASSIGNMENT

WHEREAS, I/WE,

- (1) Dong-Ming Shen, located at Edison, NJ,
- (2) XiaoXia Qian, located at New York, NY,
- (3) Bart Harper, located at New, York, NY,

(4) Meng Yang, located at Westfield, NJ, (5) Deping Wang, located at Furlong, PA,
(hereinafter ASSIGNOR(S)), together with Yingjian Bo, located at Beijing, China,, located at, and, 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:
PYRIMIDINONE AMIDE COMPOUNDS AS PDE2 INHIBITORS
and in the following application(s):
U.S. Provisional Application No. filed on ; U.S. Application No. having a filing date of ; and PCT International Application No. PCT/USCN2015/079091 having a filing date of May 15, 2015.

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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.

IWE 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	. , 2016.
Dong- Ming Shen	Bart Harper
Meng Yang	Deping Wang
ACKNOWLEDGEMENT	
County of	s.s.:
Harper, Meng Yang, Deping Wang to me ki	, 2016, personally appeared before me Dong-Ming Shen, Bart nown, and known by me to be the same person(s) described in and who owledged that he (she) executed the same, of his (her) own free will for the
(Seal)	
	Notary Public
Executed this / day of April . XlaoXia Qian	2016.
and known by me to be the same person des	s.s.: , 20 // personally appeared before me XiaoXia Qian to me known, scribed in and who executed the foregoing instrument, and acknowledged own free will for the purpose set forth.
(Seal)	Chaiding M. Kanellidae Notary Public
	CHRISTINE M. KANELLIOIS HOTSTY Public of New Jersey H.O. # 244205 Ontribaton Expires January 9, 2019

WORLDWIDE ASSIGNMENT

WHEREAS, I/WE,	
(1) Dong-Ming Shen, located at Edison, NJ,	
(2) XiaoXia Qian, located at New York, NY,	
(3) Bart Harper, located at New, York, NY,	
(4) Meng Yang, located at Westfield, NJ,	
(5) Deping Wang, located at Furlong, PA,	
(hereinafter ASSIGNOR(S)), together with Yingjian Bo, located at Bei	ijing, China,
, located at	, and
, located at	. are the inventors of the invention
described in an application for Patents having the Attorney Docket Num	nber indicated above and the following Title of the
Invention:	•
PYRIMIDINONE AMIDE COMPOUNDS	AS PDE2 INHIBITORS
and in the following application(s):	
U.S. Provisional Application No. filed on ;	
U.S. Application No having a filing date	of ; and
PCT International Application No. PCT/USCN2015/079091 ha	
WHEREAS I/WE covenant that the rights and property herei	n conveyed are free and clear of any encumbrance.
and that I/we have the full right to convey the same as herein expresse	

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.

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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.

Computer Generated Template "Assignment-Merck Sharp & Dohme. Multiple Assignees Worldwide" (Assignment) Merck Sharp & Dohme Corp. 07/09/2010

Executed this 13 day of 14/11	, 2016.
Deping Wang	
ACKNOWLEDGEMENT	
Commonwealth ofPennsylvania)
County of_MONTGOMERY	
On this 13 day of 1010 described when the same person (s) described (she) executed the same, of his (her) own free	, 2016, personally appeared before me Deping Wang to me known, and bed in and who executed the foregoing instrument, and acknowledged that he will for the purpose set forth.
(Seal) COMMONVEALTH OF PENNSYLVANIA Towarial Seal Dorothy M, Miller, Notary Public Upper Gwynedd Twn., Mentgomery County My Commission Fusico May 14, 2017 MEMBER, PENNSYLVANIA ASSOCIATION OF NOTABLES	Notary Public
Executed this day of	, 2016.
XiaoXia Qian	
ACKNOWLEDGEMENT	
of	
On this day of known by me to be the same person described (she) executed the same, of his (her) own free	, 2016, personally appeared before me XiaoXia Qian to me known, and it is and who executed the foregoing instrument, and acknowledged that he will for the purpose set forth.
(Seal)	
	Notary Public