503930089 07/25/2016 PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:		NEW ASSIGNMENT			
NATURE OF CONVEYANCE:		ASSIGNMENT	ASSIGNMENT		
CONVEYING PARTY D	ΑΤΑ				
		Name		Execution Date	
XIN-JIE CHU				06/30/2014	
RECEIVING PARTY DA					
Name:	MSD R&	MSD R&D (CHINA) CO., LTD.			
Street Address:	19-21F PARK PLACE				
Internal Address:	1601 NA	1601 NANJING ROAD			
City:	JINGAN	JINGAN DISTRICT, SHANGHAI			
State/Country:	CHINA	CHINA			
Postal Code:	200040	200040			
Application Number:	1	4908421			
Property Type Application Number:	1	Number 4908421			
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		732)594-4720			
	e sent to	the e-mail address first; if that i			
<i>using a fax number, if</i> Phone:	•	<i>if that is unsuccessful, it will b</i> 325943809	e sent via US	Mail.	
		s efs@merck.com			
		CAROL S. QUAGLIATO			
Correspondent Name:					
•	1	26 EAST LINCOLN AVE.			
Address Line 1:		26 EAST LINCOLN AVE. 8Y86-2011A			
Correspondent Name: Address Line 1: Address Line 2: Address Line 4:	R				
Address Line 1: Address Line 2: Address Line 4:	P	RY86-2011A			
Address Line 1: Address Line 2: Address Line 4: ATTORNEY DOCKET N	P	RY86-2011A RAHWAY, NEW JERSEY 07065			
Address Line 1: Address Line 2:	P	8Y86-2011A 8AHWAY, NEW JERSEY 07065 23536			
Address Line 1: Address Line 2: Address Line 4: ATTORNEY DOCKET N NAME OF SUBMITTER:	P	8Y86-2011A 8AHWAY, NEW JERSEY 07065 23536 KELLY A. PANNO			
Address Line 1: Address Line 2: Address Line 4: TTORNEY DOCKET N AME OF SUBMITTER: IGNATURE:	R D MBER:	RY86-2011A RAHWAY, NEW JERSEY 07065 23536 KELLY A. PANNO /KELLY A. PANNO/ 07/25/2016			

WORLDWIDE ASSIGNMENT

WHEREAS, IWE,

(1) Xin-Jie CHU, located at Shanghai, CHINA,

(hereinafter ASSIGNOR(S)), together with

- (2) Peter D. WILLIAMS, located at Harleysville, Pennsylvania, 19438,
- (3) John A. MCCAULEY, located at Maple Glen, Pennsylvania, 19002,
- (4) David Jonathan BENNETT, located at Winchester, Massachusetts 01890,
- (5) Christopher J. BUNGARD, located at Lansdale, Pennsylvania, 19446,
- (6) Lehua CHANG, located at Ramsey, New Jersey 07446,
- (7) Michael P. DWYER, located at Scotch Plains, New Jersey 07076,
- (8) M. Katharine HOLLOWAY, located at Lansdale, Pennsylvania 19446,
- (9) Kartik M. KEERTIKAR, located at East Windsor, New Jersey 08520,
- (10) H. Marie LOUGHRAN, located at Perkasie, Pennnsylvania, 18944,
- (11) Jesse J. MANIKOWSKI located at Worcester, Pennsylvania 19403,
- (12) Gregori J. MORRIELLO, located at Randolph, New Jersey 07869,
- (13) Dong-Ming SHEN, located at Edison, New Jersey 08820,
- (14) Edward C. SHERER, located at Hillsborough, New Jersey 08844,
- (15) Jurgen SCHULZ, located at Motherwell, Scotland, NL15LE,
- (16) Sherman Tim Waddell, located at Westfield, New Jersey 07090,
- (17) Catherine M. WISCOUNT, located at Allentown, Pennsylvania 18106.
- (18) Nicolas ZORN, located at Durmenach, France, 68480,
- (19) Satyanarayana TUMMANAPALLI, located at Then Galen, Singapore,
- (20) Vijayasaradhi SIVALENKA, located at The Galen, Singapore,
- (21) Bin HU located at Shanghai, China,
- (22) Tao JI, located at Shanghai, China, and
- (23) Bin ZHONG, located at Shanghai, 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:

PIPERAZINE DERIVATIVES AS HIV PROTEASE INHIBITORS

and/or in the following application(s):

PCT International Application No. <u>PCT/CN2013/000899</u> filed on <u>July 31, 2013;</u> PCT International Application No. ______having a filing date of _____; and US 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, MSD R&D (China) Co. Ltd., a corporation organized under the laws of China, having an office at 19-21F Park Place, 1601 Nanjing Road, Jingan District, Shanghai, 200040, CHINA, 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 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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PATENT REEL: 039248 FRAME: 0304

Worldwide Assignment

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 Attorney Docket No.: 23536

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,

Lay of JUNC Executed this 30 Xin-Jie CHU

Witness 1

Personally appeared before me the above named Xin-Jie CHU 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 30 th day of

June, 2014 BRAXIN Witness 1 Signature:

Witness 2

Personally appeared before me the above named Xin-Jie CHU, 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 $26^{t/i}$ day of 11ml , 2014

Lianjuan 2hao lianjuan Shoo Witness 2:

Signature:

Page 2 of 2 iter Generated Template "Assignment-Blank Multiple Assignees Worldwide" (Assignment) Merck Sharp & Dohme Corp. 11/04/2010

> PATENT REEL: 039248 FRAME: 0305

RECORDED: 07/25/2016