503594274 12/03/2015

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:		NEW	NEW ASSIGNMENT			
NATURE OF CONVEYANCE:		ASS	ASSIGNMENT			
CONVEYING PARTY	DATA					
			Name		Execution Date	
BANGPING XIANG					03/11/2013	
NOBUYOSHI YASUDA					03/21/2013	
	ΑΤΑ					
Name:	MERCK	MERCK SHARP & DOHME CORP.				
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Internal Address:	RY86-2	011A				
City:	RAHWA	Y				
State/Country:	NEW JE	NEW JERSEY				
Postal Code: 07065-0900						
PROPERTY NUMBER	RS Total: 1					
Property Type			Number			
Application Number: 1		4384355				
CORRESPONDENCE						
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			l address first; if that is un unsuccessful, it will be se			
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ATTORNEY DOCKET NUMBER:			23200			
NAME OF SUBMITTER:			CHRISTINE RAPACKI			
SIGNATURE:			/Christine Rapacki/			
DATE SIGNED:			3/2015			
Total Attachments: 4		·				
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PATENT REEL: 037198 FRAME: 0436

WORLDWIDE ASSIGNMENT

WHEREAS, I/WE.

(1) Bangping Xiang, located at Bridgewater, New Jersey,

(2) Nobuyoshi Yasuda, located at Mountainside, 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:

BIS-QUARTERNARY CINCHONA ALKALOID SALTS AS ASYMMETRIC PHASE TRANSFER CATALYSTS

and/or in the following application(s):

U.S. Provisional Application No. 61/610,746 filed on March 14, 2012;

U.S. Provisional Application No. 61/644,648 filed on May 09, 2012;

U.S. Application No. _____ having a filing date of _____ PCT International Application No. _____ having a filing ___; and

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.

Computer Generated Template "Assignment-Merck Sharp & Dohme. Single Assignee Worldwide" (Assignment) Merck Sharp & Dohme Corp. 11/04/2010

PATENT REEL: 037198 FRAME: 0437

March . 2013 Executed this 11 day of

Bangping Xiang

Nobuyoshi Yasuda

ACKNOWLEDGEMENT

of County of

On this $\frac{\pi}{4}$ day of $\frac{\pi}{4}$, $\frac{\pi}{20}$, personally appeared before me Bangping Xiang, Nobuyoshi Yasuda 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.

) s.s.:

(Seal)

874 acpo Notary Public

PIA ROCEL S. PARAS-SANJURJO NOTARY PUBLIC OF NEW JERSEY My Commission Expires Soptamber 14, 2017

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REEL: 037198 FRAME: 0438

Attorney Docket No.: 23200

WORLDWIDE ASSIGNMENT

WHEREAS, I/WE,

(1) Bangping Xiang, located at Bridgewater, New Jersey,

(2) Nobuyoshi Yasuda, located at Mountainside, 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:

BIS-QUARTERNARY CINCHONA ALKALOID SALTS AS ASYMMETRIC PHASE TRANSFER CATALYSTS

and/or in the following application(s):

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- U.S. Provisional Application No. 61/644,648 filed on May 09, 2012;
- U.S. Application No. _____ having a filing date of _____ PCT International Application No. _____ having a filing having having _; and 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.

Computer Generated Template "Assignment-Merck Sharp & Dohme, Single Assignee Worldwide" (Assignment) Merck Sharp & Dohme Corp. 11/04/2010

PATENT REEL: 037198 FRAME: 0439 Worldwide Assignment

Attorney Docket No.: 23200

Executed this 21 day of March , 2013

Nobuvoshic asuda

Bangping Xiang

ACKNOWLEDGEMENT <u>Radinary</u> of <u>Handerson</u> County of <u>Which</u> () s.s.:

On this $\frac{2}{2}$ day of $\frac{2}{2}$, $\frac{2}{3}$, personally appeared before me Bangping Xiang, Nobuyoshi Yasuda 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)

Notan

PAROCEL & PARAS-SAMARA) NOTARY PUBLIC OF NEW JERSEY Ny Camina English Sayatana (k. 2017

Page 2 of 2 Computer Generated Template "Assignment-Merck Sharp & Dohme. Single Assignce Worldwide" (Assignment) Merck Sharp & Dohme Corp. 11/04/2010

PATENT

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