

<b>PATENT ASSIGNMENT COVER SHEET</b>
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Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT4744754

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
BRIAN T. HOPKINS	09/13/2016
BIN MA	09/13/2016
TIMOTHY RAYMOND CHAN	09/27/2016
LIHONG SUN	09/26/2016
LEI ZHANG	09/13/2016
GNANASAMBANDAM KUMARAVEL	09/20/2016
JOSEPH P. LYSSIKATOS	09/20/2016
KEVIN KOCH	09/16/2016
HUA MIAO	09/21/2016
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	BIOGEN MA INC.
<b>Street Address:</b>	250 BINNEY STREET
<b>City:</b>	CAMBRIDGE
<b>State/Country:</b>	MASSACHUSETTS
<b>Postal Code:</b>	02142
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	15699857
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(617)607-9200
<i>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.</i>	
<b>Phone:</b>	(617) 449-6532
<b>Email:</b>	kkantorski@mccarter.com
<b>Correspondent Name:</b>	MCCARTER & ENGLISH, LLP
<b>Address Line 1:</b>	265 FRANKLIN STREET
<b>Address Line 4:</b>	BOSTON, MASSACHUSETTS 02110
<b>ATTORNEY DOCKET NUMBER:</b>	123429-03504
<b>NAME OF SUBMITTER:</b>	XIN ZHANG

<b>SIGNATURE:</b>	/Xin Zhang/
<b>DATE SIGNED:</b>	12/20/2017
	This document serves as an Oath/Declaration (37 CFR 1.63).
<b>Total Attachments: 13</b>	
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**COMBINED JOINT ASSIGNMENT & DECLARATION**

**A. ASSIGNMENT**

WHEREAS, each of the below-named inventors whose name and residence is set forth in the following Table 1:

Inventor Name	City, State
1. Brian T. Hopkins	Newton, MA
2. Bin Ma	Arlington, MA
3. Timothy Raymond Chan	Sammamish, WA
4. Lihong Sun	Lexington, MA
5. Lei Zhang	Westford, MA
6. Gnanasambandam Kumaravel	Westford, MA
7. Joseph P. Lyssikatos	Cambridge, MA
8. Kevin Koch	Cambridge, MA
9. Hua Miao	Newton, MA

Table 1

hereby declares and agrees, on behalf of himself/herself and all of his/her successors and assigns that each is aware of the patent application(s) entitled:

**BIARYL COMPOUNDS USEFUL FOR THE TREATMENT OF HUMAN DISEASES IN ONCOLOGY, NEUROLOGY AND IMMUNOLOGY; and**

- prepared for filing in the United States Patent and Trademark Office; or
- identified by United States Application Serial No. **Serial No.** filed in the United States Patent and Trademark Office on **Filing Date**; and
- identified by International Patent Application No. **PCT/US2014/069853** filed on **December 11, 2014**; and
- is also aware of the following priority applications:

**Serial No.: 61/914,886; Filed: December 11, 2013**

WHEREAS **Biogen MA Inc.** (hereinafter "ASSIGNEE"), having a usual place of business at **250 Binney Street, Cambridge, MA, 02142**, desires to acquire or confirm an interest therein;

NOW, THEREFORE, to all whom it may concern be it known that, in consideration of agreements previously and duly entered into between the parties, and/or for other good and valuable consideration, the receipt of which is hereby acknowledged, each of us has sold, assigned, and transferred and/or do hereby sell, assign, and transfer unto said ASSIGNEE, its

successors, assigns, and legal representatives, my entire right, title, and interest in and throughout the United States of America, its territories and all foreign countries, in and to any and all inventions described in the patent application, and/or any priority applications noted above, including any right of priority thereto; and hereby confirm that my sale, assignment and transfer is and was effective at least as of the filing date of the patent application and/or priority application. Our sale, assignment and transfer applies to the above-referenced patent application, and to any application that is based in whole or in part on the patent application, including to divisional, continuing, substitute, renewal, reissue, reexamination and other applications, for example that claim priority to the patent application. Also, this sale, assignment and transfer pertains to any and all other rights arising under or pursuant to any and all international agreements, treaties, or laws relating to the protection of industrial property, including all rights of priority under the International Convention for the Protection of Industrial Property, and in and to any such patent(s) as may issue thereon including any and all original and reissued patents which have been or shall be issued in the United States and foreign countries; said inventions, applications, and patent(s) to be held and enjoyed by ASSIGNEE for its own use and for its successors, assigns and legal representatives, to the full end of the term for which said patent(s) may be granted as fully and entirely as the same would have been held by each of us had this sale, assignment and transfer not been made;

AND, each of us hereby acknowledges that this Assignment, being of our entire right, title, and interest in and to the inventions, carries with it the right in ASSIGNEE, by attorneys and agents of ASSIGNEE selection, to apply for and receive any and all patent(s) for said inventions in its own name;

AND, each of us hereby further agrees for ourselves and our executors and administrators to execute upon request any other lawful documents and likewise to perform any other lawful acts which may be deemed necessary to secure fully the patent(s) to ASSIGNEE, its successors, assignees, and legal representatives, but at its expense and charges, including the execution of application for patents in foreign countries, the execution of substitution, reissue, divisional or continuation applications, and the giving of testimony, preliminary statements, or other statements in any interference or other proceeding in which the inventions or any applications or patents directed to the inventions may be involved by communicating to the ASSIGNEE all facts we know relating to the inventions and their history, and generally by doing everything possible which ASSIGNEE shall consider desirable for aiding in securing and maintaining proper patent protection for the inventions and for vesting title in the inventions and all applications for patent and all patents on the inventions in ASSIGNEE;

AND, each of us further hereby authorizes ASSIGNEE or its attorneys or agents to insert the correct serial number(s) and/or filing date(s) into this assignment document, if appropriate;

AND, each of us hereby appoints ASSIGNEE as our common agent for purposes of prosecuting international patent applications and any national patent applications for which such common agency is recognized;

AND, each of us hereby requests the Commissioner for Patents of the United States Patent and Trademark Office to issue any and all patent(s) as shall be granted upon said

application or applications based thereon to ASSIGNEE, its successors, assigns, and legal representatives;

AND, each of us covenant with said ASSIGNEE that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been made to others by us, and that full right to convey the same as herein expressed is possessed by us.

B. DECLARATION (37 CFR 1.63)

As below named inventors, we hereby declare that:

This declaration is directed to the patent application entitled:

**BIARYL COMPOUNDS USEFUL FOR THE TREATMENT OF HUMAN DISEASES IN  
ONCOLOGY, NEUROLOGY AND IMMUNOLOGY; and**

attached hereto or prepared for filing in the United States Patent and Trademark Office; or

identified by United States Application Serial No. **Serial No.** filed in the United States Patent and Trademark Office on **Filing Date**; or

identified by International Patent Application No. **PCT/US2014/069853** filed on **December 11, 2014**.

The above-identified application was made or authorized to be made by us.

We believe that we are the original joint inventors of a claimed invention in the application.

We hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

We have reviewed and understand the contents of the application, including the claims and are aware of the duty to disclose to the United States Patent and Trademark Office all information known to be material to patentability as defined in 37 CFR 1.56.

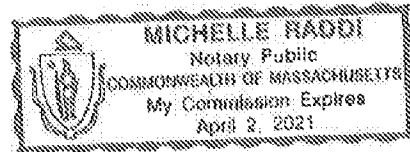
SIGNED this 13 day of September, 2016.

Brian T. Hopkins  
Name: Brian T. Hopkins

STATE OF MA SS.  
COUNTY OF Middlesex

Before me this 13 day of September, 2016, personally appeared Brian T. Hopkins, and proved to me through satisfactory evidence of identity which was drivers license to be the person whose name is signed on the preceding or attached document, and acknowledged that he/she executed the same, of his/her own free will and for the purposes set forth.

NOTARY PUBLIC  
Michelle Raddi  
Name: \_\_\_\_\_  
My Commission Expires: \_\_\_\_\_



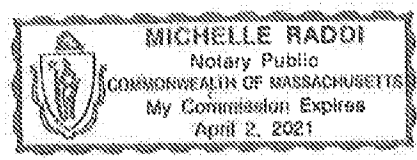
SIGNED this 13<sup>th</sup> day of September, 2016.

[Signature]  
Name: Bin Ma


STATE OF MA  
COUNTY OF Middlesex SS.

Before me this 13 day of September, 2016, personally appeared Bin Ma, and proved to me through satisfactory evidence of identity which was drivers license to be the person whose name is signed on the preceding or attached document, and acknowledged that he/she executed the same, of his/her own free will and for the purposes set forth.

NOTARY PUBLIC  
[Signature: Michelle Raddi]  
Name: \_\_\_\_\_  
My Commission Expires: \_\_\_\_\_

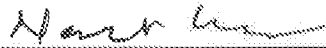




  
Name: Timothy Raymond Chan

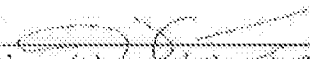
9/27/16  
Date

Witness Signature:

  
Name (please print): NAVNEET KESHER

09/27/16  
Date

Witness Signature:

  
Name (please print): Jennifer Davies

09/27/16  
Date

*Lihong Sun*  
Name: Lihong Sun

9-26-2016  
Date

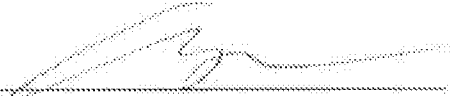
Witness Signature:  
*Paul Li*  
Name (please print): PAUL LI

9-26-16  
Date

Witness Signature:  
*Dr. Phyllis Ho*  
Name (please print):

9-26-16  
Date

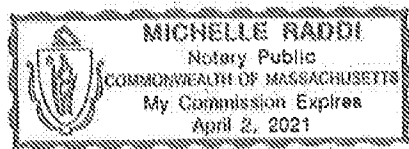
SIGNED this 13<sup>th</sup> day of Sept, 2016.

  
Name: Lei Zhang

STATE OF MA SS.  
COUNTY OF Middlesex

Before me this 13 day of September, 2016, personally appeared Lei Zhang, and proved to me through satisfactory evidence of identity which was confirmed to be the person whose name is signed on the preceding or attached document, and acknowledged that he/she executed the same, of his/her own free will and for the purposes set forth.

NOTARY PUBLIC  
Michelle Raddi  
Name: \_\_\_\_\_  
My Commission Expires: \_\_\_\_\_



G. Kumaravel  
Name: Ghanasumbandam Kumaravel

Sept 20<sup>th</sup> 2016  
Date

Witness Signature: [Signature]  
Name (please print): STEVEN BELLON

9-20-2016  
Date

Witness Signature: [Signature]  
Name (please print): HE MAN SHAN

9-20-2016  
Date

Joseph P. Lyssikatos  
Name Joseph P. Lyssikatos

09/20/16  
Date

Witness Signature: [Signature]  
Name (please print): Travis Remarchuk

09/20/16  
Date

Witness Signature: [Signature]  
Name (please print): Brian Fox

9/20/16  
Date

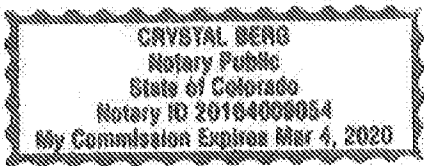
SIGNED this 16<sup>th</sup> day of September, 2016.

*Kevin Koch*

Name: Kevin Koch

STATE OF Colorado  
COUNTY OF Boulder SS.

Before me this 16<sup>th</sup> day of September, 2016, personally appeared Kevin Koch, and proved to me through satisfactory evidence of identity which was DIVERSIDENT to be the person whose name is signed on the preceding or attached document, and acknowledged that he/she executed the same, of his/her own free will and for the purposes set forth.



NOTARY PUBLIC

Crystal Berg  
Name: Crystal Berg  
My Commission Expires: Mar 4, 2020

Hua Miao  
Name: Hua Miao

9/20/2016  
Date

Witness Signature:  
Yuhong Guo  
Name (please print): YUHONG GUO

9/22/2016  
Date

Witness Signature:  
Mike Miao  
Name (please print): MIKE MIAO

9/22/2016  
Date