

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT4255867

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
KEVIN M. GUCKIAN	06/19/2015
GNANASAMBANDAM KUMARAVEL	07/17/2015
BIN MA	06/19/2015
SHA MI	06/18/2015
HAIRUO PENG	06/22/2015
ZHAOHUI SHAO	06/25/2015
LIHONG SUN	07/10/2015
ARTHUR G. TAVERAS	06/22/2015
ZHILI XIN	06/19/2015
LEI ZHANG	06/19/2015
<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>	15368454
<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>	123429-01403

<b>NAME OF SUBMITTER:</b>	XIN ZHANG
<b>SIGNATURE:</b>	/Xin Zhang/
<b>DATE SIGNED:</b>	02/02/2017
<b>Total Attachments: 11</b> source=Parent_Assignments#page1.tif source=Parent_Assignments#page2.tif source=Parent_Assignments#page3.tif source=Parent_Assignments#page4.tif source=Parent_Assignments#page5.tif source=Parent_Assignments#page6.tif source=Parent_Assignments#page7.tif source=Parent_Assignments#page8.tif source=Parent_Assignments#page9.tif source=Parent_Assignments#page10.tif source=Parent_Assignments#page11.tif	

### ASSIGNMENT - WORLDWIDE

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, each undersigned inventor (hereinafter referred to singly and collectively as "ASSIGNOR") has sold, assigned, and transferred, and by these presents hereby sells, assigns, and transfers, unto

BIOGEN MA INC.  
250 Binney Street  
Cambridge, Massachusetts 02142

(hereinafter referred to as "ASSIGNEE") its successors and assigns, the full and exclusive right, title and interest for the United States, its territories and possessions, and all foreign countries in and to this invention relating to

### COMPOUNDS THAT ARE S1P MODULATING AGENTS AND/OR ATX MODULATING AGENTS

as set forth in this United States Provisional Patent Application

*check one*      ☐ executed concurrently herewith,  
                  ☐ executed on \_\_\_\_\_,  
                  ☒ Serial No. 14/417,293, Filed on January 26, 2015.

as well as in and to (a) all improvements and modifications of the above-identified invention or inventions, (b) the above-identified application and all other applications for Letters Patent of the United States and countries foreign thereto for above-identified invention or inventions and all improvements and modifications thereof, (c) all Letters Patent which may issue from said applications in the United States and countries foreign thereto, (d) all divisions, continuations, reissues, and extensions of said applications and Letters Patent, and (e) the right to claim for any of said applications the full benefits and priority rights under the International Convention and any other international agreement to which the United States adheres; such right, title, and interest to be held and enjoyed by ASSIGNEE, its successors and assigns, to the full end of the term or terms for which any and all such Letters Patent may be granted as fully and entirely as would have been held and enjoyed by ASSIGNOR had this Assignment not been made.

ASSIGNOR HEREBY AUTHORIZES ASSIGNEE to file patent applications in any or all countries on the above-identified invention or inventions in the name of the undersigned or in the name of ASSIGNEE or otherwise as ASSIGNEE may deem advisable under the International Convention or otherwise.

ASSIGNOR HEREBY AUTHORIZES AND REQUESTS the Commissioner of Patents and Trademarks to issue said Letters Patent to ASSIGNEE as assignee of the entire interest, for the sole use and benefit of ASSIGNEE, its successors and assigns.

ASSIGNOR HEREBY AGREES (a) to communicate to ASSIGNEE, its successors and assigns, or their representative or agents, all facts and information known or available to ASSIGNOR respecting said invention or inventions, improvements, and modifications including evidence for interference, reexamination, reissue, opposition, revocation, extension, or infringement purposes or other legal,

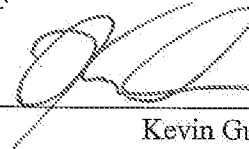
judicial, or administrative proceedings, whenever requested by ASSIGNEE; (b) to testify in person or by affidavit as required by ASSIGNEE, its successors and assigns, in any such proceeding in the United States or a country foreign thereto; (c) to execute and deliver, upon request by ASSIGNEE, all lawful papers including, but not limited to, original, divisional, continuation, and reissue applications, renewals, assignments, powers of attorney, oaths, affidavits, and declarations, depositions; and (d) to provide all reasonable assistance to ASSIGNEE, its successors and assigns, in obtaining and enforcing proper title in and protection for said invention or inventions, improvements, and modifications under the intellectual property laws of the United States and countries foreign thereto.

ASSIGNOR HEREBY REPRESENTS AND WARRANTS that ASSIGNOR has the full and unencumbered right to sell, assign, and transfer the interests sold, assigned, and transferred herein, and that ASSIGNOR has not executed and will not execute any document or instrument in conflict herewith.

ASSIGNOR HEREBY GRANTS to the law firm of **McCARTER & ENGLISH LLP** the power and authority to insert in this Assignment any further identification which may be necessary or desirable to comply with the rules of the U.S. Patent and Trademark Office for recordation of this Assignment.

ASSIGNOR UNDERSTANDS AND AGREES that the attorneys and agents of the law firm of **McCARTER & ENGLISH LLP** do not personally represent ASSIGNOR OR ASSIGNOR's legal interests, but instead represent the interests of ASSIGNEE; since said attorneys and agents cannot provide legal advice to ASSIGNOR with respect to this Assignment, ASSIGNOR acknowledges its right to seek its own independent legal counsel.

Executed this 19 day of June, 2015.



Kevin Guckian

State of MA

County of Middlesex

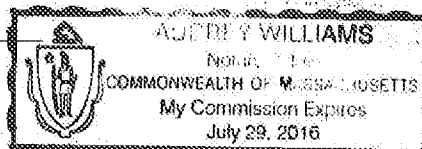
On this 19 day of June, 2015, before me, Kevin Guckian (a notary public in and for said county), personally appeared Kevin Guckian, who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

Signature

My Commission Expires:

(Seal)



Executed this 17<sup>th</sup> day of July, 2015

G Kumaravel  
Gnanasambandam Kumaravel

State of Massachusetts  
County of Middlesex

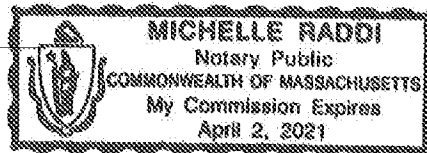
On this 17 day of July, 2015, before me, Michelle Raddi (a notary public in and for said county), personally appeared Gnanasambandam Kumaravel, who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

Signature Michelle Raddi

My Commission Expires:

(Seal)



Executed this 19 day of June, 2015

State of MA)

County of Middlesex)

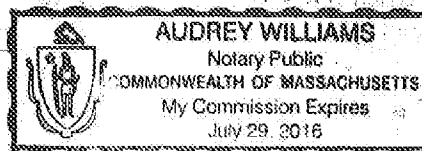
On this 19 day of JUNE, 2015, before me, Bin Ma (a notary public in and for said county), personally appeared Bin Ma, who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

Signature Billiano

My Commission Expires: \_\_\_\_\_

(Seal)



Executed this 18 day of June, 2015.

mi sh

Sha Mi

State of MA

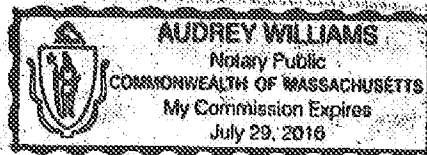
County of Middlesex

On this 18 day of June, 2015, before me, SHA MI (a notary public in and for said county), personally appeared Sha Mi, who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

Signature Audrey Williams

My Commission Expires: \_\_\_\_\_



(Seal)

Executed this 22<sup>th</sup> day of June, 2015.

Hairuo Peng  
Hairuo Peng

State of MA

County of Middlesex

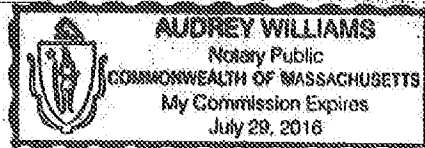
On this 22 day of June, 2015, before me, Hairuo Peng (a notary public in and for said county), personally appeared Hairuo Peng, who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

Signature Audrey Williams

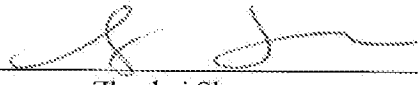
My Commission Expires: \_\_\_\_\_

(Seal)





Executed this 25 day of June, 2015.



Zhaohui Shao

State of MA

County of Middlesex

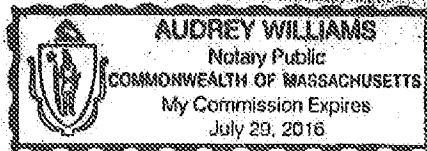
On this 25 day of June, 2015, before me, Zhaohui Shao (a notary public in and for said county), personally appeared Zhaohui Shao, who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

Signature: 

My Commission Expires: \_\_\_\_\_

(Seal)



Executed this 10<sup>th</sup> day of July, 2015

[Signature]  
Lihong Sun

State of MA

County of Middlesex

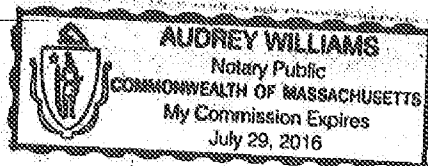
On this 10 day of July, 2015, before me, Lihong Sun (a notary public in and for said county), personally appeared Lihong Sun, who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

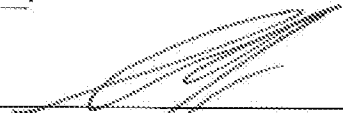
Signature: [Signature]

My Commission Expires: \_\_\_\_\_

(Seal)



Executed this 22 day of JUNE, 2015.

  
\_\_\_\_\_  
Arthur Taveras

State of MA

County of Middlesex

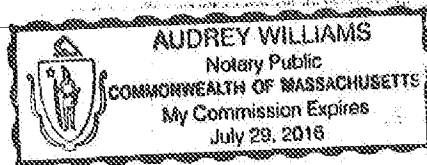
On this 22 day of June, 2015, before me, Arthur Taveras (a notary public in and for said county) personally appeared Arthur Taveras, who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

Signature 

My Commission Expires: \_\_\_\_\_

(Seal)



Executed this 19 day of June, 2015.

Zhili Xin  
Zhili Xin

State of MA

County of Middlesex

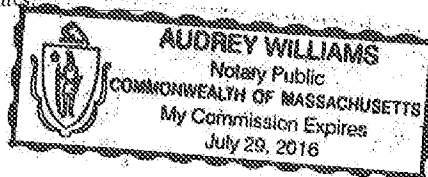
On this 19 day of June, 2015, before me, Zhili Xin (a notary public in and for said county), personally appeared Zhili Xin, who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

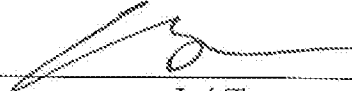
Signature: [Signature]

My Commission Expires:

(Seal)



Executed this 19 day of June, 2015.



Lei Zhang

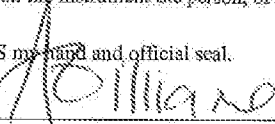
State of MA

County of Middlesex

On this 19 day of June, 2015, before me, Lei Zhang (a notary public in and for said county), personally appeared Lei Zhang, who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

Signature



My Commission Expires:

(Seal)

