503801059 04/27/2016

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
JERMAINE THOMAS	05/10/2012
XIAOGAO LIU	06/05/2012
EDWARD YIN-SHIANG LIN	05/10/2012
GUO ZHU ZHENG	05/04/2012
BIN MA	05/10/2012
RICHARD D. CALDWELL	06/13/2012
KEVIN M. GUCKIAN	05/10/2012
GNANASAMBANDAM KUMARAVEL	05/10/2012
ARTHUR G. TAVERAS	05/10/2012

RECEIVING PARTY DATA

Name:	BIOGEN IDEC MA INC.
Street Address:	14 CAMBRIDGE CENTER
City:	CAMBRIDGE
State/Country:	MASSACHUSETTS
Postal Code:	02142

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14874600

CORRESPONDENCE DATA

Fax Number: (617)607-9200

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: (617) 449-6532

Email: docket@mccarter.com

MCCARTER & ENGLISH, LLP Correspondent Name:

Address Line 1: 265 FRANKLIN STREET

Address Line 4: BOSTON, MASSACHUSETTS 02110

ATTORNEY DOCKET NUMBER: 123429-01204 NAME OF SUBMITTER: XIN ZHANG

PATENT REEL: 038390 FRAME: 0743 503801059

SIGNATURE:	/Xin Zhang/	
DATE SIGNED:	04/27/2016	
Total Attachments: 10		
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PATENT REEL: 038390 FRAME: 0744

ASSIGNMENT

For valuable consideration, we, <u>Jermaine THOMAS</u> of <u>Chelsea</u>, <u>MA</u>; and <u>Xiaogao LIU</u> of <u>Dover</u>, <u>MA</u>; <u>Edward Yin-Shiang LIN</u> of <u>Chestnut Hill</u>, <u>MA</u>; <u>Guo Zhu ZHENG</u> of <u>Lexington</u>, <u>MA</u>; <u>Bin MA</u> of <u>Arlington</u>, <u>MA</u>; <u>Richard D. CALDWELL</u> of <u>Woburn</u>, <u>MA</u>; <u>Kevin M</u>.

<u>GUCKIAN</u> of <u>Northborough</u>, <u>MA</u>; <u>Gnanasambandam KUMARAVEL</u> of <u>Westford</u>, <u>MA</u>; and <u>Arthur G. TAVERAS</u> of <u>Southborough</u>, <u>MA</u>; hereby assign to <u>Biogen Idec MA Inc.</u>, a corporation of <u>Massachusetts</u> having a place of business at:

14 Cambridge Center Cambridge, Massachusetts 02142;

and its successors and assigns (collectively hereinafter called "the Assignee"), our entire right, title and interest throughout the world in the inventions and improvements which are subject of an application for United States Patent entitled BICYCLIC ARYL SPHINGOSINE 1-PHOSPHATE ANALOGS, filed March 30, 2012, and assigned U.S. Serial Number 13/389,054, this assignment including said application, any and all United States and foreign utility patents and patent applications, including continuation, continuation-in-part, divisional, reissue, and reexamination applications, utility models, and design registrations granted for any of said inventions or improvements, and the right to claim priority based on the filing date of said application under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other treaties of like purposes; and we authorize the Assignee to apply in all countries in our name or in its own name for patents, utility models, design registrations and like rights of exclusion and for inventors' certificates for said inventions and improvements; and we agree for ourselves and our respective heirs, legal representatives and assigns, without further compensation to perform such lawful acts and to sign such further applications, assignments, Preliminary Statements and other lawful documents as the Assignee may reasonably request to effectuate fully this assignment,

Assignment Page 1 of 10

PATENT REEL: 038390 FRAME: 0745

DATE: 5/10/12	Jamaine THO	ál—— Mas	
STATE OF Massackusells COUNTY OF Middlesey)) ss.)		
Before me this 10 th da appeared Jermaine THOMAS known foregoing Assignment, proved to me to 10 10 10 10 10 10 10 10 10 10 10 10 10	to me to be the person hrough satisfactory e, and acknowledg	n whose name is subs vidence of identificat ed that he/she execute	cribed to the ion in the form
[Notary's Seal Here]	Notary Public My Commission	V	<u> </u>
	35 3 % :	::SS:	

JENNIFER L. VERHAZZA , SCHOOMER F GRENCHBOTS NY CONTRIGO ESSIN NSCO 22, 2014

DATE: <u>6/5/20/0</u>	. <i>7/</i> Xiao	729/42-55 gao EIU		aummusiamii
STATE OF				
Before me this 5 ⁴⁴	day of	M.C.	, 20 <u>/2</u>	, personally
Assignment, proved to me through	satisfactory evi		cation in the	form of
his/her free act and deed for the pur			*	
[Notary's Seal Here]	Notary My Cor	ruene nmission Expires	3: 	

YURY AFENNEIN Notary Public Commonwealth of Maccachusetts My Commission Exp. Dec. 16, 2018

Attorney Docket No. 14937,0081 (Biogen Ref. P0839 US 002)

DATE: 5/10/12 Edward Yin-Shiang LIN
STATE OF MOSSICLUSENTS) COUNTY OF MOSSICLUSENTS) SS.
Before me this 10th day of MAY, 2012, personally
appeared Edward Yin-Shiang LIN known to me to be the person whose name is subscribed to the
foregoing Assignment, proved to me through satisfactory evidence of identification in the form of MAND#S 55385838 and acknowledged that be/she executed the same as
his/her free act and deed for the purposes therein contained.
his/her free act and deed for the purposes therein contained. Notary Public My Commission Expires: 3/28/17 [Notary's Seal Here]
JENNIFERL VERNAZZA ROZIN PLENE Aly Communication Expires My Communication Expires March 22, 2014

DATE: 05/04/20/2	Altorney Docket No. 14937.0081 (Biogen Ref. P0839 US 002) Guo Chul ZitteNG
STATE OF MassackugeHs COUNTY OF Middlesex	\$\$.
Before me this 44 day	of May, 20 12, personally
appeared Guo Zhu ZHENG known to m	e to be the person whose name is subscribed to the
70 At	ough satisfactory evidence of identification in the form, and acknowledged that he/she executed the same as
his/her free act and deed for the purpose	s therein contained.
	Notary Public
	My Commission Expires:
[Notary's Scal Here]	
	MICHAEL D. CARLI Plotary Public Vommonweshin of Mossochumits My Commission Expires Suptember 24, 2015

Assignment Page 5 of 10

DATE: _5/10/12	Attorney Docket Not 14937,6681 (Biogen Ref. P0839 US 002) Bin MA
STATE OF Mossochusetts COUNTY OF Middlesex)) ss.)
	y of, 20_1 Z, personally he person whose name is subscribed to the foregoing
Assignment, proved to me through sati	isfactory evidence of identification in the form of , and acknowledged that he/she executed the same as
his/her free act and deed for the purpos	
	<u> </u>
	Notary Public \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\
[Notary's Seal Here]	My Commission Expires: 3/28/14
	JENNIFE (L. VERNAZZA) SCHWINGER PLONE MY COMMUNICACIÓN ESCHURTTE MY COMMUNICACIÓN ESCHURTTE MY COMMUNICACIÓN ESCHURTTE

		Attorney Docket No: 14937.0081 (Biogen Ref. P0839 US 002)
DATE: 6-13-2012		
	Richard D. CALDWELI	ý
STATE OF MA COUNTY OF MIMILES EX	9 S .	
Before me thisday o appeared <u>Richard D. CALDWELL</u> knows the foregoing Assignment, proved to me t	n to me to be the person who	se name is subscribed to
form of a Massachusetts driver's	Licznsand acknowledged tha	nt he/she executed the same
as his/her free act and deed for the purpos	es therein contained.	
	Notary Public James My Commission Expires:	<u>Delany</u> M Delang June 20, 2914
[Notary's Seal Here]		

Assignment Page 7 of 10

JAMES M. DELANEY
Notice Public
Common of Massachusetts
In Massachusetts
June 20, 2014

DATE: 5/10/12	Attorney Docket No: 14937 0081 (Biogen Ref. P0839 US 002)
	Kevin M. GUCKIAN
STATE OF <u>Mossachusetts</u>)	
STATE OF Middlesex }	
Before me this 10 day of	
foregoing Assignment, proved to me throu	ne to be the person whose name is subscribed to the gh satisfactory evidence of identification in the form and acknowledged that he/she executed the same as
his/her free act and deed for the purposes t	
	Jeste Uss.
	Notary Public () () () () () () () () () () () () ()
[Notary's Seal Here]	3/28/14
	& •

DATE: <u>5/0/12</u>	C K Second State of Control of Co
STATE OF MOSSOCKUSEHS COUNTY OF Middlesock)) \$5.)
appeared <u>Gnanasambandam KUMAR</u> , subscribed to the foregoing Assignmer identification in the form of	

DAT	E: 5/0/12	Attorney Docket No. 14937.0081 (Biogen Ref. P0839 US 002) Atthur GATAVERAS
STA	TE OF <u>Massacluse</u> !! Inty of Madlesex	<u>`S)</u> ss.
COL	NTY OF <u>Madifesex</u>	
	Before me this 10th	_day of
		nown to me to be the person whose name is subscribed to the
		me through satisfactory evidence of identification in the form and acknowledged that he/she executed the same as
his/h	er free act and deed for the pr	urposes therein contained.
		Notary Public X 4 1 1 1 1 1
		Notary Public Services: 3/2-8/14
[Nota	ary's Seal Here]	
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PATENT REEL: 038390 FRAME: 0754

RECORDED: 04/27/2016