504480481 07/31/2017

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4527183

SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	ASSIGNMENT	

CONVEYING PARTY DATA

Name	Execution Date
MICHAEL ZEMEL	07/13/2012
E. DOUGLAS GRINDSTAFF II	07/13/2012
ANTJE BRUCKBAUER	07/13/2012

RECEIVING PARTY DATA

Name:	NUMETA SCIENCES, INC.		
Street Address:	1600 DIVISION ST.		
Internal Address:	SUITE 230		
City:	NASHVILLE		
State/Country:	TENNESSEE		
Postal Code:	37203		

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15595911

CORRESPONDENCE DATA

Fax Number: (650)493-6811

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.

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Correspondent Name: WILSON SONSINI GOODRICH & ROSATI

Address Line 1: 650 PAGE MILL ROAD

Address Line 4: PALO ALTO, CALIFORNIA 94304

ATTORNEY DOCKET NUMBER:	42736-702.305
NAME OF SUBMITTER:	CECILIA HUI
SIGNATURE:	/Cecilia Hui/
DATE SIGNED:	07/30/2017

Total Attachments: 2

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PATENT 504480481 REEL: 043142 FRAME: 0261

PATENT ASSIGNMENT	Docket Number 42736-702.201				
WHEREAS, the undersigned:					
1. ZEMEL, Michael 2. GRINDSTAFF II, E. Dougias 3. BRUCKBAUER, Antje Heiskell, TN Nashville, TN Knoxville, TN					
(hercinafter "inventor(s))," have invented certain new and useful improvements in					
COMPOSITIONS AND METHODS FOR MODULATING METABO	LIC PATHWAYS				
for which a United States patent application is executed on even date herewith; for which Application No. 13/549-381 was filed on 18/13, 2012 in the United States Patent C for which Application Nowas filed on in the U.S. Receiving Office of the Patent C for which Application Nowas filed on in thePatent Office; and/or for which an application was filed upon which a United States Patent issued on, as U.S. (hereinafter "Application(s)").	ooperation Treaty;				
WHEREAS, NuMeta Sciences, Inc., a corporation of the State of Delaware, having a place of business at 1600 Division St. Suita 230 Nashville, TN 37203, (hereinafter "Assignee"), is desirous of acquiring the entire right, title and interest in and to said Application(s) and the inventions disclosed therein, and in and to all embodiments of the inventions, heretofore conceived, made or discovered, whether jointly or severally, by said inventor(s) (hereinafter collectively referred to as "Inventions"), and in and to any and all patents, inventor's certificates and other forms of protection (hereinafter "Patent(s)") thereon granted in the United States, foreign countries, or under any international convention, agreement, protocol, or treaty.					
NOW, THEREFORE, in consideration of good and valuable consideration acknowledged by sa said Assignce:	id Inventor(s) to have been received in full from				
I. Said Inventor(s) do hereby sell, assign, transfer and convey unto said Assignce the entire right, title and interest (a) in and to said inventions and said Applications, including the right to claim priority to said inventions and said Applications; (b) in and to all rights to all United States and corresponding non-United States patent applications and Patent(s), including those filed under the Paris Convention for the Protection of Industrial Property, The Patent Cooperation Treaty or otherwise; (c) in and to any and all applications filed and any and all Patent(s) granted on said Inventions in the United States, in any foreign country, or under any international convention, agreement, protocol, or treaty, including each and every application filed and any end all Patent(s) granted on any application which is a divisional, substitution, continuation, or continuation-in-part of any of said Application(s); and (d) in and to each and every reissue, reexamination, or extensions of any of said Patent(s).					
2. Said Inventor(s) hereby covenant and agree to cooperate with said Assignee to enable said Assignee to enjoy to the fullest extent the right, title and interest herein conveyed in the United States, foreign countries, or under any international convention, agreement, protocol, or treaty. Such cooperation by said Inventor(s) shall include prompt production of pertinent facts and documents, giving of testimony, execution of petitions, on other papers, and other assistance all to the extent deemed necessary or desirable by said Assignee (a) for perfecting in said Assignee the right, title and interest herein conveyed; (b) for prosecuting any applications covering said Inventions; (c) for filling and prosecuting substitute, divisional, continuing or additional applications covering said inventions; (d) for filling and prosecuting applications for reissuance of any said Patent(s); (e) for interference or other priority proceedings involving said inventions; and (f) for legal proceedings involving said inventions and any applications therefor and any Patent(s) granted thereon, including without limitation reissuas and recraminations, opposition proceedings, cancellation proceedings, priority contests, public use proceedings, infringement actions and court actions; provided, however, that the expense incurred by said inventor(a) in providing such cooperation shall be paid for by said Assignee.					
3. The terms and covenants of this assignment shall inure to the benefit of said Assignee, its successors, assigns and other legal representatives, and shall be binding upon said inventor(s), their respective heirs, legal representatives and assigns.					
4. Said inventor(s) hereby warrant and represent that they have not entered and will not enter into any assignment, contract, or understanding in conflict herewith.					
5. Said Inventor(s) hereby request that any Patent(s) issuing in the United States, foreign countries, or under any international convention, agreement, protocol, or treaty, be issued in the name of the Assignee, or its successors and assigns, for the sole use of said Assignee, its successors, legal representatives and assigns.					
6. This instrument will be interpreted and construed in accordance with the laws of the State of California, without regard to conflict of law principles. If any provision of this instrument is found to be illegal or unenforceable, the other provisions shall remain effective and enforceable to the greatest extent permitted by law. This instrument may be executed in counterparts, each of which is deemed an original, but all of which together constitute one and the same agreement.					
IN WITNESS WHEREOF, said inventor(s) have executed and delivered this instrument to said Assignee as of the dates written below:					
Date: 7//5/12 Date:					
Michael Zemel	E. Douglas Grindstaff II				
Date: 7-13-12 Date: Date:					

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	PATENT ASSIGNMENT			Docket Number 42736-702.201
WHERFAS, the undersigned:	The state of the s		arrando de la composição	
1. ZEMEL, Michael Heiskell, TN	 GRINDSTAFF II, E. Dougla Nashville, TN 		BRUCKBAUER, Ant Knoxville, TN	je
(hereinafter "Inventor(s))," hav	e invented certain new and useful impr	ovements in		
•	COMPOSITIONS AND METHODS	FOR MOD	ULATING METAB	OLIC PATHWAYS
☐ for which a Unit. ☑ for which Applic ☐ for which Applic ☐ for which Applic ☐ for which Applic	ed States patent application is executed ation No. 13/549.381 was filed on July ation No was filed on in the U ation No was filed on in the lication was filed upon which a United	on even dat v 13, 2012 i S. Receivin	e herewith; in the United States Pr g Office of the Patent lice; and/or	stent Office; Cooperation Treaty;
and in and to all embodiments of collectively referred to as "Inve- thereon granted in the United St	if the inventions, heretofore conceived, ntions"), and in and to any and all puter ates, foreign countries, or under any in	made or dis made or dis nts, inventor ternational o	nterest in and to said eovered, whether join 's certificates and oth convention, agreement	s at 1600 Division St. Suite 230 Nashville, TN Application(s) and the inventions disclosed therein tily or severally, by said Inventor(s) (hereinafter er forms of protection (hereinafter "Patent(s)") i, protocol, or treaty.
NOW, THEREFORE said Assignee:	, in consideration of good and valuable	considerati	on acknowledged by	said Inventor(s) to have been received in full from
and corresponding non-United S Property, The Patent Cooperatio United States, in any foreign cot any and all Patent(s) granted on	tates patent applications and Patent(s), in Treaty or otherwise; (c) in and to an intry, or under any international conventional	o said inven including the y and all apportion, agrees whetitorion	tions and said Applications filed under the Prolications filed and an ment, protocol, or treaters are continuation, or contin	entire right, title and interest (a) in and to said ations; (b) in and to all rights to all United States aris Convention for the Protection of Industrial y and all Patent(s) granted on said Inventions in the ty, including each and every application filed and nuation-in-part of any of said Application(s); and
cooperation by said Inventor(s): specifications, declarations or of Assignee the right, title and inten- divisional, continuing or addition (e) for interference or other prior therefor and any Patent(s) grante	her papers, and other assistance all to the est herein conveyed; (b) for prosecution all applications covering said Invention with proceedings involving said Invention of thereon, including without limitation eedings, infringement actions and coursed in the papers and course and course and course and course and course are the papers and course and course and course and course and course are the papers and course and course are the papers and course and course are the papers and the papers are the papers are the papers are the papers are the papers and the papers are the pape	incres, or in inent facts a he extent do ig any applic is; (d) for fil ons; and (f) in treistures and	nder any international and documents, giving concd necessary or de- ations covering said l ling and prosceuting a for legal proceedings.	ole said Assignee to enjoy to the fullest extent the convention, agreement, protocol, or treaty. Such of testimony, execution of petitions, oaths, sirable by said Assignee (a) for perfecting in said inventions; (c) for filing and prosecuting substitute, pplications for reissuance of any said Patent(s); involving said Inventions and any applications osition proceedings, cancellation proceedings, the expense incurred by said Inventor(s) in
 The terms a representatives, and shall be bine 	nd covenants of this assignment shall it ling upon said Inventor(s), their respec-	nure to the t tive heirs, le	penefit of said Assign gal representatives an	ee, its successors, assigns and other legal d assigns.
4. Said Invent understanding in conflict herewi	or(s) hereby warrant and represent that h.	they have n	ot entered and will no	d enter into any assignment, contract, or
 Said Inventi agreement, protocoi, or treaty, be representatives and assigns. 	or(s) hereby request that any Patent(s) issued in the name of the Assignee, or	issuing in the	e United States, foreigns and assigns, for the	en countries, or under any international convention, e sole use of said Assignee, its successors, legal
ing britishes, it mily bitalized is	ii una instrument is tound to be thegat	Of Imentory	while the other provide	State of California, without regard to conflict of ions shall remain effective and enforceable to the ned an original, but all of which together constitute
_	EOF, said Inventor(s) have executed an	d delivered	this instrument to said	Assignce as of the dates written below:
Date:	chael Zemel	Date:	7/13/12	F. Douglas Grindstaff II
Date:		Date:		or reading community
An	tje Bruckbauer		The same of the sa	The second secon

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