503276166 04/23/2015

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

EPAS ID: PAT3322784

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
KECHUN ZHANG	02/06/2015
MINGYONG XIONG	02/10/2015
YI-SHU TAI	04/09/2015

RECEIVING PARTY DATA

Name:	REGENTS OF THE UNIVERSITY OF MINNESOTA	
Street Address:	600 MCNAMARA ALUMNI CENTER	
Internal Address:	200 OAK STREET SE	
City:	MINNEAPOLIS	
State/Country:	MINNESOTA	
Postal Code:	55455-2020	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14404125

CORRESPONDENCE DATA

Fax Number: (612)305-1228

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.

Email: joostra@mrgiplaw.com

CHRISTOPHER D. GRAM **Correspondent Name:**

Address Line 1: P.O. BOX 581336

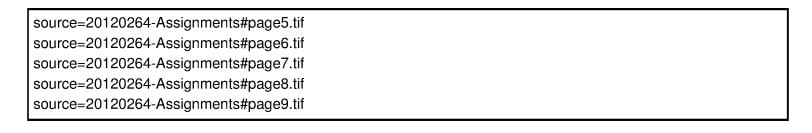
Address Line 4: MINNEAPOLIS, MINNESOTA 55458-1336

ATTORNEY DOCKET NUMBER:	110.03840101
NAME OF SUBMITTER:	CHRISTOPHER D. GRAM
SIGNATURE: /Christopher D. Gram/	
DATE SIGNED:	04/23/2015

Total Attachments: 9

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> **PATENT REEL: 035476 FRAME: 0682** 503276166



PATENT REEL: 035476 FRAME: 0683

ASSIGNMENT

WHEREAS, I, <u>Kechun Zhang</u>, have invented certain new and useful improvements in <u>BIOSYNTHETIC PATHWAYS</u>, <u>RECOMBINANT CELLS</u>, <u>AND METHODS</u>, for which applications for Letters Patents of the United States have been made, said applications being filed as follows: and Utility application no. <u>14/404.125</u> on <u>November 26, 2014</u> (hereafter, the "Application");

Whereas, the REGENTS OF THE UNIVERSITY OF MINNESOTA ("Assignee"), having offices at 600 McNamara Alumni Center, 200 Oak Street SE, Minneapolis, Minnesota 55455-2020, is desirous of acquiring the entire right, title and interest in and to said invention, said Applications and in, to and under any and all Letters Patent to be obtained therefore;

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, I have sold, assigned, transferred and set over and by these presents do sell, assign, transfer and set over unto Assignee, its successors and assigns, the entire right, title and interest in and to the inventions set forth hereinabove and the entire right, title and interest in and to any and all Letters Patent of the United States and any foreign countries which may be granted therefor on the Application including my rights under the International Convention for the Protection of Industrial Property, and in and to any and all extensions, divisions, continuations, continuations-in-part or reissues of said Application and Letters Patent that may be granted, the same to be held and enjoyed by Assignee for its own use and benefit and use and benefit of its successors and assigns to the full end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held and enjoyed by me had this assignment and sale not been made specifically including the right to enforce such Letters Patent in the name of Assignee and to recover damages for past infringement of the rights conveyed herein.

I hereby authorize said Assignee, its successors and assigns, or anyone it may properly designate, to apply for Letters Patent, in its own name if desired, in any and all foreign countries, and additionally to claim the filing date of any the Application and/or otherwise take advantage of the provisions of the International Convention.

Attorney Docket No.: 110.03840101

U of M Case No.: 20120264

Upon said consideration I do hereby covenant and agree with said Assignee, its successors and assigns, that I will not execute in writing or do any act whatsoever conflicting with these presents, and that I or my executors or administrators will at any time upon request, without further or additional consideration, but at the expense of said Assignee, its successors and assigns, execute such additional writings and do such additional acts as said Assignee, its successors and assigns, may deem necessary or desirable to perfect the Assignee's enjoyment of this grant, and render all necessary assistance in making application for and obtaining original, divisional, reissues or extended Letters Patent of the United States, or of any and all foreign countries on said invention, and in enforcing any rights occurring as a result of such application or patents, by giving testimony in any proceedings or transactions involving such applications or patents.

STATE OF Mingeso 14

COUNTY OF Honepin

On this bid day of FCOCASCU , 2015, before me personally appeared Kechun Zhang, to me known to be the person described in and who executed the foregoing instrument and acknowledged that she executed the same as his/her free act and deed.

IN WITNESS WHEREOF, I have hereumo affixed my official signature with the seal of my office, the day and year above written.

ASSIGNMENT

WHEREAS, I, Mingvong Xiong, have invented certain new and useful improvements in BIOSYNTHETIC PATHWAYS. RECOMBINANT CELLS. AND METHODS, for which applications for Letters Patents of the United States have been made, said applications being filed as follows: and Utility application no. 14/404,125 on November 26, 2014 (hereafter, the "Application");

Whereas, the REGENTS OF THE UNIVERSITY OF MINNESOTA ("Assignee"), having offices at 600 McNamara Alumni Center, 200 Oak Street SE, Minneapolis, Minnesota 55455-2020, is desirous of acquiring the entire right, title and interest in and to said invention, said Applications and in, to and under any and all Letters Patent to be obtained therefore;

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, I have sold, assigned, transferred and set over and by these presents do sell, assign, transfer and set over unto Assignee, its successors and assigns, the entire right, title and interest in and to the inventions set forth hereinabove and the entire right, title and interest in and to any and all Letters Patent of the United States and any foreign countries which may be granted therefor on the Application including my rights under the International Convention for the Protection of Industrial Property, and in and to any and all extensions, divisions, continuations, continuations-in-part or reissues of said Application and Letters Patent that may be granted, the same to be held and enjoyed by Assignee for its own use and benefit and use and benefit of its successors and assigns to the full end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held and enjoyed by me had this assignment and sale not been made specifically including the right to enforce such Letters Patent in the name of Assignee and to recover damages for past infringement of the rights conveyed herein.

I hereby authorize said Assignee, its successors and assigns, or anyone it may properly designate, to apply for Letters Patent, in its own name if desired, in any and all foreign countries, and additionally to claim the filing date of any the Application and/or otherwise take advantage of the provisions of the International Convention.

Upon said consideration I do hereby covenant and agree with said Assignee, its successors and assigns, that I will not execute in writing or do any act whatsoever conflicting with these presents, and that I or my executors or administrators will at any time upon request, without further or additional consideration, but at the expense of said Assignee, its successors and assigns, execute such additional writings and do such additional acts as said Assignee, its successors and assigns, may deem necessary or desirable to perfect the Assignee's enjoyment of this grant, and render all necessary assistance in making application for and obtaining original, divisional, reissues or extended Letters Patent of the United States, or of any and all foreign countries on said invention, and in enforcing any rights occurring as a result of such application or patents, by giving testimony in any proceedings or transactions involving such applications or patents.

I hereby request the Honorable Commissioner of Patents and Trademarks to issue the Letters Patent to Assignee in accordance with this instrument.
IN WITNESS WHEREOF, I have hereunto set my hand on this
STATE OF Wisconsil) COUNTY OF Manifoware)
On this / day of Fabruary , 2015, before me personally appeared Mingvons Xiong, to me known to be the person described in and who executed the foregoing instrument and acknowledged that s/he executed the same as his/her free act and deed.
IN WITNESS WHEREOF, I have hereunto affixed my official signature with the seal of my office, the day and year above written. GEORGE VALLESKEY Notary Public State of Wisconsin Notary Public

ASSIGNMENT

WHEREAS, I. <u>Yi-Shu Tai</u>, have invented certain new and useful improvements in <u>BIOSYNTHETIC PATHWAYS</u>. <u>RECOMBINANT CELLS</u>. <u>AND METHODS</u>. for which applications for Letters Patents of the United States have been made, said applications being filed as follows: and Utility application no. <u>14/404.125</u> on <u>November 26, 2014</u> (hereafter, the "Application");

Whereas, the REGENTS OF THE UNIVERSITY OF MINNESOTA ("Assignce"), having offices at 600 McNamara Alumni Center, 200 Oak Street SE, Minneapolis, Minnesota 55455-2020, is desirous of acquiring the entire right, title and interest in and to said invention, said Applications and in, to and under any and all Letters Patent to be obtained therefore:

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged. I have sold, assigned, transferred and set over and by these presents do sell, assign, transfer and set over unto Assignee, its successors and assigns, the entire right, title and interest in and to the inventions set forth hereinabove and the entire right, title and interest in and to any and all Letters Patent of the United States and any foreign countries which may be granted therefor on the Application including my rights under the International Convention for the Protection of Industrial Property, and in and to any and all extensions, divisions, continuations, continuations-in-part or reissues of said Application and Letters Patent that may be granted, the same to be held and enjoyed by Assignee for its own use and benefit and use and benefit of its successors and assigns to the full end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held and enjoyed by me had this assignment and sale not been made specifically including the right to enforce such Letters Patent in the name of Assignee and to recover damages for past infringement of the rights conveyed herein.

Thereby authorize said Assignee, its successors and assigns, or anyone it may properly designate, to apply for Letters Patent, in its own name if desired, in any and all foreign countries, and additionally to claim the filing date of any the Application and/or otherwise take advantage of the provisions of the International Convention.

Upon said consideration I do hereby covenant and agree with said Assignee, its successors and assigns, that I will not execute in writing or do any act whatsoever conflicting with these presents, and that I or my executors or administrators will at any time upon request, without further or additional consideration, but at the expense of said Assignee, its successors and assigns, execute such additional writings and do such additional acts as said Assignee, its successors and assigns, may deem necessary or desirable to perfect the Assignee's enjoyment of this grant, and render all necessary assistance in making application for and obtaining original, divisional, reissues or extended Letters Patent of the United States, or of any and all foreign countries on said invention, and in enforcing any rights occurring as a result of such application or patents, by giving testimony in any proceedings or transactions involving such applications or patents.

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PATENT REEL: 035476 FRAME: 0691

I hereby request the Honorable Com Assignee in accordance with this instrument.		arks to issue the Letters Patent to
IN WITNESS WHEREOF, I have h	ercunto set my hand on this	t ^t ^ day of
April		
	X4Shii Tui	ace.
en er en er en		
STATE OF MIGNESONO		
COUNTY OF HUMERIA		
On this OH day of NO Tai, to me known to be the person described that s/he executed the same as his/her free ac	d in and who executed the forego	e personally appeared <u>Yi-Shu</u> ing instrument and acknowledged
IN WITNESS WHEREOF, I have he day and year above written.		the with the seal of my office, the
	Notary Bublic	JANA O. FARES HOTHER PUBLIC MINES OF A HY COMMOD ON EXPRES OF A 2019 NY: YI - STU TO I ONLY

REEL: 035476 FRAME: 0692