### PATENT ASSIGNMENT

## Electronic Version v1.1 Stylesheet Version v1.1

 SUBMISSION TYPE:
 NEW ASSIGNMENT

 NATURE OF CONVEYANCE:
 SECURITY AGREEMENT

### **CONVEYING PARTY DATA**

Name	Execution Date
Myriant Corporation	03/23/2013

### **RECEIVING PARTY DATA**

Name:	PTT Global Chemical Public Company Limited	
Street Address:	Vibhavadi Rangsit Road Chatuchak, Chatuchak	
Internal Address:	555/1, Energy Complex, Building, 14th-18th Floor	
City:	Bangkok	
State/Country:	THAILAND	
Postal Code:	10900	

#### PROPERTY NUMBERS Total: 31

Property Type	Number
Application Number:	61281483
Application Number:	61281486
Application Number:	61281481
Application Number:	61335189
Application Number:	61400596
Application Number:	61402913
Application Number:	61459446
Application Number:	61467417
Application Number:	61514679
Application Number:	61573207
Application Number:	61631268
Application Number:	61632277
Application Number:	61608053
Application Number:	61740230
	PATENT

REEL: 030187 FRAME: 0111

Application Number:	61701293
PCT Number:	US2010057111
PCT Number:	US2010057291
PCT Number:	US2010057119
PCT Number:	US2010062635
PCT Number:	US2011032803
PCT Number:	US2011045001
PCT Number:	US2011046047
PCT Number:	US2011050707
PCT Number:	US2011064598
PCT Number:	US2012030553
PCT Number:	US2012049111
PCT Number:	US2012053543
PCT Number:	US2012070902
PCT Number:	US2013023690
PCT Number:	US2013029368
Application Number:	61342695

### **CORRESPONDENCE DATA**

**Fax Number**: 3026365454

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

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Address Line 4: Washington, DISTRICT OF COLUMBIA 20005

ATTORNEY DOCKET NUMBER:	625795-5
NAME OF SUBMITTER:	Jean Paterson
Signature:	/jep/
Date:	04/10/2013

### Total Attachments: 12

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Form <b>PTO-1595</b> (Rev. 03/01)  OMB No. 0651-0027 (exp. 5/31/2002)  Tab settings ⇔ ⇔ ♥	RECORDATION FORM PATENT		U.S. DEPARTMENT OF COMMERCE U.S. Patent and Trademark Office
To the Honorable Commissioner o	of Patents and Trademarks: I	Please record the attached or	iginal documents or copy thereof.
1. Name of conveying party(ies):		2. Name and address	of receiving party(ies)
MYRIANT CORPORATION		Name: PTT GLOBAL	CHEMICAL PUBLIC COMPANY LIMITED
		Internal Address: 55	55/1, ENERGY COMPLEX, BUILDING,
Additional name(s) of conveying party(ies) a	attached? 🎑 Yes 🍇 No	14TH-18TH FLOOR	
3. Nature of conveyance:			
🖳 Assignment I	📮 Merger		The state of the s
Security Agreement	Change of Name	Street Address: VII	BHAVADI RANGSIT ROAD
Other	•	CHATUCHAK, CHATU	CHAK
		City: BANGKOK	State: THAILAND Zip: 10900
Execution Date: MARCH 23, 2013		Additional name(s) & add	dress(es) attached? 📮 Yes 🙎 No
4. Application number(s) or patent number(s):			
If this document is being filed tog	ether with a new applic	cation, the execution dat	te of the application is:
A. Patent Application No.(s)		B. Patent No.(s)	
SEE SCHEDULE A ATTACHE	D HERETO.	SEE SCHEDULE A	ATTACHED HERETO.
	Additional numbers atta	ached? 🎇 Yes 🖳 No	
5. Name and address of party to wh		6. Total number of appli	ications and patents involved: 31
concerning document should be r	•	7 Total fee (37 CFR 3)	41)\$
Name:		_	Ψ1/
Internal Address:		☐ Enclosed	İ
		Authorized to be	e charged to deposit account
Street Address:		8. Deposit account num	nber:
City:State:	Zip:	(Attach duplicate copy of t	this page if paying by deposit account)
DO NOT USE THIS SPACE			
9. Statement and signature.	L.C. H. W. Harris Brown and State In	* 4	# 1 Lanuary
To the best of my knowledge and is a true copy of the original docu		formation is true and co.	rrect and any attached copy
Jonathan R. Larson		SH-	4/9/13
Name of Person Signing		Signature	Date
Total numb	her of pages including cover	sheet, attachments, and docu	uments: [[2]]

Mail documents to be recorded with required cover sheet information to:

Commissioner of Patents & Trademarks, Box Assignments

Washington, D.C. 20231

# **SCHEDULE A**

## **PATENTS**

## <u>PTO</u>

# Filing Number

- 1. 61/281,483
- 2. 61/281,486
- 3. 61/281,481
- 4. 61/335,189
- 5. 61/342,695
- 6. 61/400,596
- 7. 61/402,913
- 8. 61/459,446
- 9. 61/497,417
- 10. 61/514/679
- 11. 61/573,207
- 12. 61/631,268
- 13. 61/632,277
- 14. 61/608,053
- 15. 61/740,230
- 16. 61/701,293

# <u>PCT</u>

### Filing Number

- 1. PCT/US2010/057111
- 2. PCT/US2010/057291

- 3. PCT/US2010/057119
- 4. PCT/US2010/062635
- 5. PCT/US2011/032803
- 6. PCT/US2011/045001
- 7. PCT/US2011/046047
- 8. PCT/US2011/050707
- 9. PCT/US2011/064598
- 10. PCT/US2012/030553
- 11. PCT/US2012/049111
- 12. PCT/US2012/053543
- 13. PCT/US2012/070902
- 14. PCT/US2013/023690
- 15. PCT/US2013/029368

#### PATENT SECURITY AGREEMENT

This PATENT SECURITY AGREEMENT (this "Patent Security Agreement") is made as of this 22nd day of March, 2013, by the Debtor listed on the signature page hereof (the "Debtor"), in favor of PTT GLOBAL CHEMICAL PUBLIC COMPANY LIMITED, a corporation organized under the laws of the Kingdom of Thailand as lender (the "Lender"), pursuant to that certain Term Loan and Security Agreement, dated as of March 22, 2013 (as amended, modified or supplemented from time to time, the "Loan Agreement"), between Myriant Corporation, a Delaware corporation formerly known as Myriant Technologies, Inc., and the Lender.

#### WITNESSETH:

WHEREAS, pursuant to Section 4.7 of the Loan Agreement, Debtor is required to execute and deliver to the Lender this Patent Security Agreement.

NOW, THEREFORE, in consideration of the premises and mutual covenants herein contained and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Debtor hereby agrees as follows:

- 1. <u>DEFINED TERMS</u>. All capitalized terms used but not otherwise defined herein have the meanings given to them in the Loan Agreement.
- 2. <u>GRANT OF SECURITY INTEREST IN PATENT COLLATERAL</u>. Debtor hereby grants to the Lender a continuing first priority security interest in all of Debtor's right, title and interest in, to and under the following, whether presently existing or hereafter created or acquired (collectively, the "<u>Patent Collateral</u>"):
- (a) all of Debtor's Patents and Patent Licenses to which it is a party including those referred to on <u>Schedule I</u> hereto;
  - (b) all reissues, continuations or extensions of the foregoing; and
- (c) all products and proceeds of the foregoing, including, without limitation, any claim by Debtor against third parties for past, present or future infringement or dilution of any Patent or any Patent licensed under any Patent License.
- 3. <u>SECURITY FOR SECURED OBLIGATIONS</u>. This Patent Security Agreement and the security interest created hereby secures the payment and performance of all the Secured Obligations of Debtor, whether now existing or arising hereafter. Without limiting the generality of the foregoing, this Patent Security Agreement secures the payment of all amounts which constitute part of the Secured Obligations and would be owed by Debtor to the Lender but for the fact that they are unenforceable or not allowable due to the existence of an insolvency event involving Debtor.
- 4. <u>LOAN AGREEMENT</u>. The security interests granted pursuant to this Patent Security Agreement are granted as a supplement to, and not in limitation of, the security interests granted to the Lender pursuant to the Loan Agreement. Debtor hereby acknowledges and

affirms that the rights and remedies of the Lender with respect to the security interest in the Patent Collateral made and granted hereby are more fully set forth in the Loan Agreement, the terms and provisions of which are incorporated by reference herein as if fully set forth herein. This Patent Security Agreement has been executed and delivered by Debtor for the purpose of registering the security interest of the Lender in the Patent Collateral with the United States Patent and Trademark Office.

- 5. <u>AUTHORIZATION TO SUPPLEMENT</u>. If Debtor shall obtain rights to any new patentable inventions or become entitled to the benefit of any patent application or patent for any reissue, division or continuation of any patent, the provisions of this Patent Security Agreement shall automatically apply thereto. Debtor shall give prompt notice in writing to the Lender with respect to any such new patent rights. Without limiting Debtor's obligations under this <u>Section 5</u>, Debtor hereby authorizes the Lender to unilaterally modify this Patent Security Agreement by amending <u>Schedule I</u> to include any such new patent rights of Debtor. Notwithstanding the foregoing, no failure to so modify this Patent Security Agreement or amend <u>Schedule I</u> shall in any way affect, invalidate or detract from the Lender's continuing security interest in all Collateral, whether or not listed on Schedule I.
- 6. <u>COUNTERPARTS</u>. This Patent Security Agreement may be executed in any number of counterparts, each of which shall be deemed to be an original, but all such separate counterparts shall together constitute but one and the same instrument. In proving this Patent Security Agreement in any judicial proceedings, it shall not be necessary to produce or account for more than one such counterpart signed by the party against whom such enforcement is sought. Any signatures delivered by a party by facsimile transmission or by e-mail transmission shall be deemed an original signature hereto.

[SIGNATURE PAGE FOLLOWS]

DM\_US 41634735-1.085089.0052

IN WITNESS WHEREOF, Debtor has caused this Patent Security Agreement to be executed and delivered by its dufy authorized officer as of the date first set forth above.

DEBTOR:	MYRIANT CORPORATION  By: Stephen J. Gatto  Title: CEO
LENDER:	PTT GLOBAL CHEMICAL PUBLIC COMPANY LIMITED
	By:

IN WITNESS WHEREOF, Debtor has caused this Patent Security Agreement to be executed and delivered by its duly authorized officer as of the date first set forth above.

DEBTOR:	MYRIANT CORPORATION
	Ву:
	Name: Title;
LENDER:	PTT GLOBAL CHEMICAL PUBLIC COMPANY LIMITED
	By. Oiper Lx
	Name:

# SCHEDULE I TO PATENT SECURITY AGREEMENT

		s filed and registered LLC (n/k/a Myriant	in the name of Myriant Corporation)
Sr. No.	Title / Inventors / Attorney Docket No.	Filing Date / Application No.	Status
1	Metabolic evolution of Escherichia coli strains that produce organic acids.  Inventors: Tammy Grabar, Wei Gong, and Rogers Yocum  MT2009-02PRO	Nov 18, 2009 US Provisional Patent Application No. 61/281,483	Converted into an utility application on November 17, 2010.  International Application Number: PCT/US10/57111.  Same title as the original provisional application.  MT2010-02PCT
			Entered into National Stage in AU, BR, CA, CN, EPO, ID, IN, JP, KR, MX, MY, PH, SG, TH, VN and US
2	Role of glyoxylate bypass pathway in Succinic acid production.  Inventors: Sudhanshu Dole and Rogers Yocum	Nov 18, 2009 US Provisional Patent Application No. 61/281,486	Converted into an utility application on November 18, 2010.  International Application Number: PCT/US10/57291  Title of the PCT Application:
	MT2009-03PRO		Organic acid production in microorganisms by combined reductive and oxidative tricarboxylic acid cycle pathways.MT2010-03PCT  Entered into National Stage in US

3	Engineering bacteria for the maximum production of organic acids.  Applicants (Inventors): Wei Gong, Sudhanshu Dole, Tammy Grabar, Janice Pero, Rogers Yocum  MT2009-04PRO	Nov 18, 2009 US Provisional Patent Application No. 61/281,481	Converted into an utility application on November 17, 2010.  International Application Number: PCT/US10/57119  Title of the PCT Application: Engineering Microbes for Efficient Production of ChemicalsMT2010-04PCT  Entered into National Stage in BR, CN, EPO, JP, KR, TH and US
4	Purification of Succinic acid from the fermentation broth containing ammonium succinate  Inventors: Steve Gerberding, and Ramnik Singh  MT2009-05PRO	Dec 31, 2009  US Provisional Patent Application  No. 61/335,189	Converted into an utility application on December 31, 2010.  International Application Number: PCT/US2010/062635  Title of the PCT Application: Purification of succinic acid from fermentation broth containing ammonium succinate.  MT2010-05PCT  To be Entered into National Stage in BR, CN, EPO, JP, KR, TH and US before June 30, 2012
5	Production of organic acids from xylose rich hydrolysate by bacterial fermentation.  Inventors: Tammy Grabar, William Houser	April 16, 2010  US Provisional Patent Application	Converted into an utility application on April 16, 2011.  International Application Number: PCT/US11/32803  Title of the PCT Application: Production of organic acids

	MT2010-01PRO	No. 61/342,695	from xylose rich hydrolysate by bacterial fermentation
			MT2011-01PCT
6	Fermentation of glycerol to organic acids	July 22, 2011 PCT/US11/45001	Filed directly as a PCT Application.
7	Improved fermentation process for the production of organic acids.	July 30, 2010	Converted into an utility application on July 30, 2011
	Inventors: Theron Hermann, James Reinhardt. Xiaohui Yu,	US provisional Patent Application	International Application Number: PCT/US11/46047
	Russel Udani and Lauren Staples	No. 61/400,596	Title of the PCT Application: Improved fermentation process for the production of organic acids.
	MT2010-02PRO		
			MT2011-02PCT
8	Catalytic dehydration of lactic acid and lactic acid esters.  Inventors: Cenan Ozmeral,	September 7, 2010	Converted into an utility application on September 7, 2011.
	Joseph P. Glas, Rajesh Dasari, Tanielyan Setrak, Ramesh	US Provisional Patent Application	International Application Number: PCT/US11/50707.
	Deoram Bhagat and Mohan Reddy Kasireddy	No. 61/402,913	Title of the PCT Application: Catalytic dehydration of lactic acid and lactic acid esters
	MT2010-03PRO		MT2011-03PCT
9	Method of producing succinic acid and other chemicals using sucrose-containing feedstock.	December 13, 2010	Converted into an utility application on December 13, 2011.
	Inventors: Sudhanshu Dole and Rogers Yocum	US Provisional Patent Application No.:	International Application

	MT2010-04PRO	61/459,446	Number: PCT/US11/64598
			Title of the PCT Application: Method of producing succinic acid and other chemicals using sucrose-containing feedstock
			MT2011-04PCT
10	Environmentally friendly coalescing agents.	June 15, 2011	
	Inventors: Michael Mang and Brain Turk  MT2011-01PRO	US provisional Patent Application No.: 61/497,417	PCT/US12/30553 filed in March 26, 2012 MC2012-01PCT
11	Degradable six pack ring and compositions and methods related to.	August 3, 2011	On target for conversion into an utility application on or before August 3, 2012.
	Inventors: Michael Mang, Steve Gatto and Cenan Ozmeral	US Provisional Patent Application No.: 61/514/679	MT2011-02PRO
12	Method for conversion of diammonium succinate in fermentation broth to 2-pyrrolidone and N-methylpyrrolidone.  Inventor: Tina Tosukhowang	September 1, 2011  US Provisional Patent Application No.: 61/573,207	On target for conversion into an utility application on or before September 1, 2012.
			MT2011-03PRO
13	Integrated Biorefinery  Inventors: Bin Wang and Ramnik Singh	December 30, 2011  US Provisional Patent Application No:	On target for conversion into an utility application on or before December 30, 2012.
		61/631,268	MT2011-04PRO

14	Production of cis,cis-muconic acid from genetically engineered microorganisms  Inventors: Yocum, Gong, Dole, Sillers, Gandhi and Pero	January 30, 2012 US provisional Patent Application No.: 61/632,277	On target for conversion into an utility application on or before January 30, 2013.  MC2012-01PRO
15	Preparation of α, β- unsaturated carboxylic acids andesters thereof	March 7, 2012  US Provisional Patent Application No. 61/608,053	On target for conversion into an utility application on or before July 31, 2013
16	Preparation of alpha, beta – unsaturated carboxylic acids and ester thereof	December 20, 2012 US Provision Patent Application No. 61/740,230	On target for conversion into an utility application on or before March 7, 2013
17	Production of organic acids by fermentation at low pH	September 14, 2012 US Provisional Patent Application No. 61/701,293	On target for conversion into an utility application on or before September 14, 2013

License Agreement with Gene Bridges dated October 3, 2008

Amendment and Restatement of License Agreement, dated May 19, 2008, by and between BioEnergy International, LLC and PURAC Biochem BV (subsequently assigned to the Borrower)

**RECORDED: 04/10/2013**