## 504986524 07/02/2018

# PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE: NEW ASSIGNMENT

NATURE OF CONVEYANCE: ASSIGNMENT

EPAS ID: PAT5033270

#### **CONVEYING PARTY DATA**

Name	Execution Date
GREGORY BONITO	05/30/2018
ZHI-YAN DU	02/19/2018
CHRISTOPH BENNING	02/19/2018

### **RECEIVING PARTY DATA**

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City:	EAST LANSING	
State/Country:	MICHIGAN	
Postal Code:	48824	

### **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	15894457

### **CORRESPONDENCE DATA**

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ATTORNEY DOCKET NUMBER:	3000.164US1	
NAME OF SUBMITTER:	CHERYL BREYFOGLE	
SIGNATURE:	/Cheryl Breyfogle/	
DATE SIGNED:	07/02/2018	

**Total Attachments: 6** 

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PATENT 504986524 REEL: 046252 FRAME: 0398

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# RECORDATION FORM COVER SHEET PATENTS ONLY

Atty Ref/Docket No.: 3000.164US1 Patent and Trademark Office To the Director of the U.S. Patent and Trademark Office: Please record the attached original documents or copy thereof. Name and address of receiving party(ies): 1. Name of conveying party(ies): Name: Board of Trustees of Michigan State University Gregory Bonito, Zhi-Yan Du, Christoph Benning Street Address: 450 Administration Building Additional name(s) of conveying party(ies) attached? City: East Lansing State: MI Zip: 48824-1046 Country: United States of America [ ]Yes [X]No Additional name(s) & address(es) attached? [ [Yes [X]No 3. Nature of conveyance: [X] Assignment | Merger [ ] Security Agreement [ ] Change of Name [ ] Other Execution Date: May 30, 2018, February 19, 2018, February 19, 2018 4. Application number(s) or patent number(s): If this document is being filed together with a new application, the execution date of the application is: A. Patent Application No.(s) B. Patent No.(s) Serial No. 15/894,457 Additional numbers attached? [ ]Yes [X]No 6. Total number of applications and patents involved: 1 5. Name and address of party to whom correspondence 7. Total fee (37 CFR 3.41):\$ 0.00 concerning document should be mailed: Name: Robin A. Chadwick [[Enclosed [Authorized to be charged to deposit account 19-Address: 0743 Schwegman Lundberg & Woessner, P.A. P.O. Box 2938 Please charge any additional fees or credit any over Minneapolis, Minnesota 55402 payments to our Deposit Account No.: 19-0743 DO NOT USE THIS SPACE Statement and signature. To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. Robin A. Chadwick/Reg. No. 36.477 Name of Person Signing Total number of pages including cover sheet: 6 Mail documents to be recorded with required cover sheet information to: Commissioner of Patents and Trademarks Mail Stop Assignment Recordation Services P.O. Box 1450 Alexandria, VA 22313-1450

#### ASSIGNMENT

WHEREAS, Gregory Bonito, Zhi-Yan Du and Christoph Benning (hereinafter the "Undersigned") have made one or more inventions and other subject matter (hereinafter collectively referred to as the "Invention"); as described in the patent application filed on February 12, 2018, assigned US application serial number 15/894,457, and titled LIPID BIOSYNTHESIS AND ABIOTIC STRESS RESILIENCE IN PHOTOSYNTHETIC ORGANISMS and as described in a provisional patent application filed on February 13, 2017 assigned United States application serial number 62/458,236, and titled LIPID BIOSYNTHESIS AND ABIOTIC STRESS RESILIENCE IN PHOTOSYNTHETIC ORGANISMS.

FOR GOOD AND VALUABLE CONSIDERATION, the receipt, sufficiency, and adequacy of which are hereby acknowledged by the Undersigned, the Undersigned do hereby irrevocably and unconditionally:

CONVEY, ASSIGN, AND TRANSFER to Board of Trustees of Michigan State University (the "Assignee"), a corporation of the State of Michigan, having a place of business at 450 Administration Building, East Lansing, MI 48824-1046, the Undersigned's entire right, title, and interest for the United States and all foreign countries and jurisdictions in and to:

the Invention which is disclosed in the above-identified application or applications;

such application or applications, and all divisional, continuing (including continuation-in-part), substitute, renewal, reissue, and all other applications for a patent or patents which have been or shall be filed in the United States (including all provisional and non-provisional applications), and in all foreign countries and jurisdictions based in whole or in part on any of such Invention (including any application for a utility model or an innovation patent application);

all original and reissued patents which have been or shall be issued in the United States and all foreign countries and jurisdictions based in whole or in part on any of such Invention;

including the right to claim priority to the above-identified patent application or applications in relation to subject matter based in whole or in part on the above-identified patent application or applications and any of the foregoing including the right to file foreign applications under the provisions of any convention or treaty;

and including the right to all causes of action, remedies, and other enforcement rights related to the above-identified application or applications, including without limitation the right to sue for past, present, or future infringement, misappropriation, or violation of any and all rights related to the above-identified patent application or applications and any of the foregoing, including the right to obtain and collect damages for past, present, or future infringement;

AUTHORIZE AND REQUEST the issuing authority to issue any and all United States and foreign patents granted on such Invention to the Assignee;

AUTHORIZE AND REQUEST that any attorney associated with U.S. Patent and Trademark Office (USPTO) Customer No. 21186 may (directly or through his/her designee) delete, insert, or alter any

Assignment Docket No: 3000.164US1
Assignors: Gregory Bonito et al. Client Ref. No. TEC2016-0019-01

Title: LIPID BIOSYNTHESIS AND ABIOTIC STRESS RESILIENCE IN PHOTOSYNTHETIC ORGANISMS

Page 2 of 5

information related to the above-identified patent application or applications or any of the foregoing, after execution of this Assignment;

WARRANT AND COVENANT that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been or shall be made to others by the Undersigned, and that the full right to convey the same as herein expressed is possessed by the Undersigned;

COVENANT, that when requested and without compensation, but at the expense of the Assignee, in order to carry out in good faith the intent and purpose of this Assignment, the Undersigned shall (1) execute all provisional, non-provisional, divisional, continuing (including continuation-in-part), substitute, renewal, reissue, and all other patent applications for the Invention; (2) execute all rightful oaths, declarations, assignments, powers of attorney and other papers for the Invention; (3) communicate to the Assignee all facts known to the Undersigned relating to the Invention and the history thereof; (4) cooperate with the Assignee in any interference, reexamination, reissue, opposition, dispute, or litigation involving any of the applications or patents for the Invention; and (5) take such further actions as the Assignee shall reasonably consider necessary or desirable for vesting title to such Invention in the Assignee, or for securing, maintaining and enforcing proper patent protection for the Invention;

COVENANT, that should any provision of this agreement be held unenforceable by an authority of competent jurisdiction, such a ruling shall not affect the validity and enforceability of the remaining provisions. To the extent that any such provision is found to be unenforceable, the Undersigned, when requested and without compensation shall act in good faith to substitute for such provision a new provision with content and purpose as close as possible to the provision deemed unenforceable.

THIS AGREEMENT IS TO BE BINDING on the heirs, assigns, representatives, and successors of the Undersigned, and is to extend to the benefit of the successors, assigns, and nominees of the Assignee.

AGREED as of the date of my signature below:

Assignment Docket No: 3000.164US1
Assignors: Gregory Bonito et al. Docket No: TEC2016-0019-01

Title: LIPID BIOSYNTHESIS AND ABIOTIC STRESS RESILIENCE IN PHOTOSYNTHETIC ORGANISMS

Page 3 of 5

Assignor:

(Signature): /Gregory Bonito/

Name: <u>Gregory Bonito</u> City/State: <u>East Lansing</u>, <u>MI</u>

Date: May 30, 2018

Assignment

Docker No. 3000.164US1 Client Bef. No. TEC2016-0019-01

Assignment: Gregory Bunito et al.

ChiTitle: LIPID BIOSYNTHESIS AND ABIOTIC STRESS RESILIENCE IN PHOTOSYNTHETIC ORGANISMS

Page 4-1d 5

Assignor:

(Signature):

Name: Zhi-Yan Du

City/State: East Lansing, MI

Date:

3/19/2018

Assignment Decket No: 3000.164US1
Assigners: Gregory Bonito et al. Clicor Ref. No. TEC2016-0019-01
Title: LIPID BIOSYNTHESIS AND ABIOTIC STRESS BESILIENCE IN PHOTOSYNTHETIC ORGANISMS
Page 5 st 3

Assignor:

(Signature):

Name: Christoph Benning

City/State: East Lansing, MI

Date:

PATENT REEL: 046252 FRAME: 0405

**RECORDED: 07/02/2018**