PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
SHOTA ATSUMI	04/06/2015
JOHN W.K. OLIVER	04/27/2015
IARA M.P. MACHADO	04/04/2015

RECEIVING PARTY DATA

Name: THE REGENTS OF THE UNIVERSITY OF CALIFORNIA	
Street Address: 1111 FRANKLIN STREET	
Internal Address:	TWELFTH FLOOR
City:	OAKLAND
State/Country:	CALIFORNIA
Postal Code:	94607-5200

PROPERTY NUMBERS Total: 1

Property Type	Number		
Application Number:	14431747		

CORRESPONDENCE DATA

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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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ATTORNEY DOCKET NUMBER:	514112006300
NAME OF SUBMITTER:	CHRISTINE A. LEKUTIS
SIGNATURE:	/Christine A. Lekutis/
DATE SIGNED:	06/03/2015

Total Attachments: 6

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PATENT 503334346 REEL: 035816 FRAME: 0357

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PATENT REEL: 035816 FRAME: 0358

U.C. Case No.: 2012-280-2

ASSIGNMENT

For good and valuable consideration, the receipt of which is hereby acknowledged, ASSIGNOR(S),

- Shota ATSUMi
 c/o University of California, Davis
 One Shields Avenue
 Davis, California 95616
- John W.K. OLIVER
 c/o University of California, Davis
 One Shields Avenue
 Davis, California 95616
- Iara M.P. MACHADO c/o University of California, Davis One Shields Avenue Davis, California 95616

hereby sells, assigns and transfers to ASSIGNEE, The Regents of the University of California, a California Corporation, having its statewide administrative offices located 1111 Franklin Street, Twelfih Floor, Oakland, CA 94607-5200, and the successors, assigns and legal representatives of the ASSIGNEE all of its right, title and interest for the United States and its territorial possessions and in all foreign countries in and to, any and all improvements which are disclosed in the invention entitled:

METHODS OF PRODUCING ACETOIN AND 2,3-BUTANEDIOL USING PHOTOSYNTHETIC MICROORGANISMS

and	nd which is found in					
(a)		U.S. provisional application file	ed herewith and list	ing the above na	med persons as inventors	
(b)	**********	U.S. patent application filed he	rewith and listing th	ne above named j	persons as inventors	
(c)	X	U.S. application serial no.	14/431.747	filed on	9/27/2013 (int'l.)	
(d)	***********	U.S. Patent No.:	<u></u>	issued	<u></u>	
			. , , , , , , , , , , , , , , , , , , ,			

and any legal equivalent thereof in a foreign country, including the right to claim priority and, in and to, all Letters Patent to be obtained for said invention by the above application or any continuation, division, continuation-in-part, extension, conversion to 35 USC 111(a) or substitute thereof, and any reissue, reexamination or extension of said Letters Patent and all rights under all International Conventions for the Protection of Industrial Property;

ASSIGNOR(S) hereby agrees that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment;

ASSIGNOR(S) further agrees that ASSIGNEE will, upon its request, be provided promptly with all pertinent facts and documents relating to said invention and said Letters Patent and legal equivalents as may be known and accessible to ASSIGNOR and will testify as to the same in any interference, post grant review, inter partes review, litigation, or proceeding relating thereto and will promptly execute and deliver to ASSIGNEE or its legal representative any and all papers, instruments or affidavits required to apply for, obtain, maintain, issue or enforce said application, said invention and said Letters Patent and said equivalents thereof which may be necessary or desirable to carry out the purposes thereof. An attorney of record is authorized and requested by the execution of this assignment to insert into this assignment the filing date and serial number of said application when officially known.

sf-3521407

U.C. Case No.: 2012-280-2

AND the <u>ASSIGNOR(S)</u> requests the Commissioner of Patents and Trademarks to issue said Letters Patent of the United States and any reissue or extension thereof to the ASSIGNEE, The Regents of the University of California.

executed this	Signature of Inventor(s)
6th day of April 20 15	
, mark	Shota ATSUMI
executed this	Signature of Inventor(s)
day of	John W.K. OLIVER
executed this	Signature of Inventor(s)
	,
day of20	
	lara M.P. MACHADO
	<i>J</i>
Assignce hereby accepts this Assignment:	4_0^^.
Date: 26 MAY 2015	eleans of the University of California

U.C. Case No.: 2012-280-2

ASSIGNMENT

For good and valuable consideration, the receipt of which is hereby acknowledged, ASSIGNOR(S),

- Shota ATSUMI c/o University of California, Davis One Shields Avenue Davis, California 95616
- John W.K. OLIVER
 c/o University of California, Davis
 One Shields Avenue
 Davis, California 95616
- Iara M.P. MACHADO

 c/o University of California, Davis
 One Shields Avenue
 Davis, California 95616

hereby sells, assigns and transfers to ASSIGNEE, The Regents of the University of California, a California Corporation, having its statewide administrative offices located 1111 Franklin Street, Twelfth Floor, Oakland, CA 94607-5200, and the successors, assigns and legal representatives of the ASSIGNEE all of its right, title and interest for the United States and its territorial possessions and in all foreign countries in and to, any and all improvements which are disclosed in the invention entitled:

METHODS OF PRODUCING ACETOIN AND 2,3-BUTANEDIOL USING PHOTOSYNTHETIC MICROORGANISMS

and which i	is found in		
(a)	U.S. provisional application filed herewith and listing the above named persons as inventors		
(b)	U.S. patent application filed herewith and listing the above named persons as inventors		
(c) <u>x</u>	U.S. application serial no. 14/431,747 , filed on 9/27/2013 (Int'l.)		
(d)	U.S. Patent No.:, issued		
Patent to be extension,	gal equivalent thereof in a foreign country, including the right to claim priority and, in and to, all Letters e obtained for said invention by the above application or any continuation, division, continuation-in-part, conversion to 35 USC 111(a) or substitute thereof, and any reissue, reexamination or extension of said ent and all rights under all International Conventions for the Protection of Industrial Property;		

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executed this	Signature of Inventor(s)
day of 20	Shota ATSUMI
executed this	Significate of Anventor(s)
21 day of <u>April 2015</u>	Jun W.K. OLIVER
executed this	Signature of Inventor(s)
day of2020	lera M.P. MACHADO
Assignee hereby accepts this Assignment:	The Rygents of the University of California
Date: 28 Apr 2015	· ·

U.C. Case No.: 2012-280-2

ASSIGNMENT

For good and valuable consideration, the receipt of which is hereby acknowledged, ASSIGNOR(S),

- Shota ATSUMI
 c/o University of California, Davis
 One Shields Avenue
 Davis, California 95616
- John W.K. OLIVER
 c/o University of California, Davis
 One Shields Avenue
 Davis, California 95616
- Iara M.P. MACHADO c/o University of California, Davis One Shields Avenue Davis, California 95616

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					claim priority and, in and to	

Patent to be obtained for said invention by the above application or any continuation, division, continuation-in-part, extension, conversion to 35 USC 111(a) or substitute thereof, and any reissue, reexamination or extension of said Letters Patent and all rights under all International Conventions for the Protection of Industrial Property;

ASSIGNOR(S) hereby agrees that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment;

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executed this		Signature of Inventor(s)
day of		
		Shota ATSUMI
executed this		Signature of Inventor(s)
day of		
		John W.K. OLIVER
executed this		Signature of Inventor(s)
04 day of April	, 20_15	Jana M. P. Machada
Assignee hereby acce	pts this Assignment:	MAnner
Date: 6 April	2015	The Regents of the University of California
		Contraction of the Contraction o

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RECORDED: 06/03/2015