

## PATENT ASSIGNMENT COVER SHEET

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<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
PARAYIL K. AJIKUMAR	06/23/2014
GREGORY STEPHANOPOULOS	06/10/2014
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<b>State/Country:</b>	MASSACHUSETTS
<b>Postal Code:</b>	02139
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	16031509
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(617)646-8646
<i>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.</i>	
<b>Phone:</b>	6176468000
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<b>Correspondent Name:</b>	SARDIAA S. LENEY
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<b>ATTORNEY DOCKET NUMBER:</b>	M0656.70201US11
<b>NAME OF SUBMITTER:</b>	SARDIAA S. LENEY
<b>SIGNATURE:</b>	/Sardiaa S. Leney/
<b>DATE SIGNED:</b>	11/09/2018
<b>Total Attachments: 8</b>	
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## CONFIRMATORY ASSIGNMENT

For good and valuable consideration, the receipt of which is hereby acknowledged, I, the undersigned Assignor, hereby:

1. Confirm that, on or before October 27, 2010, I sold, assigned and transferred to Massachusetts Institute of Technology, a Massachusetts Non-profit Corporation having a place of business at 77 Massachusetts Avenue; Cambridge, Massachusetts 02139, its successors, assigns and legal representatives, hereinafter referred to as the Assignee, my entire right, title and interest for the United States and all foreign countries, in and to any and all inventions and designs which are disclosed in any of the patent applications listed in the following table:

<u>Title</u>	<u>Application</u>	<u>Filing Date</u>
MICROBIAL ENGINEERING FOR THE PRODUCTION OF CHEMICAL AND PHARMACEUTICAL PRODUCTS FROM THE ISOPRENOID PATHWAY	U.S. Application Serial Number 61/280,877	10-Nov-2009
MICROBIAL ENGINEERING FOR THE PRODUCTION OF CHEMICAL AND PHARMACEUTICAL PRODUCTS FROM THE ISOPRENOID PATHWAY	U.S. Application Serial Number 61/388,543	30-Sep-2010
MICROBIAL ENGINEERING FOR THE PRODUCTION OF CHEMICAL AND PHARMACEUTICAL PRODUCTS FROM THE ISOPRENOID PATHWAY	U.S. Application Serial Number 12/943477	10-Nov-2010
MICROBIAL ENGINEERING FOR THE PRODUCTION OF CHEMICAL AND PHARMACEUTICAL PRODUCTS FROM THE ISOPRENOID PATHWAY	U.S. Application Serial Number 13/249,388	30-Sep-2011
MICROBIAL ENGINEERING FOR THE PRODUCTION OF CHEMICAL AND PHARMACEUTICAL PRODUCTS FROM THE ISOPRENOID PATHWAY	U.S. Application Serial Number 13/944239	17-Jul-2013
MICROBIAL ENGINEERING FOR THE PRODUCTION OF CHEMICAL AND PHARMACEUTICAL PRODUCTS FROM THE ISOPRENOID PATHWAY	International Application Serial Number PCT/US2010/056206	10-Nov-2010

and in and to the applications and all corresponding non-provisional, divisional, continuing, substitute, renewal, reissue and all other applications for Letters Patent, utility models, industrial designs or similar intellectual property rights which have been or shall be filed in the United States, internationally, and in any foreign country, including but not limited to China, Japan and Korea, on any of the inventions; and in and to all original and reissued patents which have been

or shall be issued in the United States or any other jurisdiction on the inventions, including the right to apply for patent rights in each foreign country and all rights to priority, including the right to claim priority for China, Japan and Korea, as well as the right to sue in its own name and recover damages for past infringement of any United States Letters Patent and foreign patent;

2. Confirm that, on or before October 27, 2010, I agreed and that I continue to agree that the Assignee may apply for and receive Letters Patent and utility model and industrial design registrations for the inventions in its own name; and when requested, without charge to but at the expense of the Assignee, I agree to carry out in good faith the intent and purpose of this assignment, by executing all non-provisional, divisional, continuing, substitute, renewal, reissue, and all other patent, utility model and industrial design applications on any and all the inventions, by executing all rightful oaths, assignments, powers of attorney and other papers, by communicating to the Assignee all facts known to me relating to the inventions and the history thereof, and generally by doing everything reasonably possible which the Assignee shall consider desirable for aiding in securing and maintaining proper protection for the inventions and for vesting title to the inventions and all applications for patents and all patents on the inventions, in the Assignee;

3. Request the Director of the United States Patent and Trademark Office to issue the Letters Patent to the Assignee;

4. Authorize and request Wolf, Greenfield & Sacks, P.C. to supply any missing patent/application identification information or correct any errors in the patent/application identification information provided above, whether discovered prior to or after recordation;

5. Covenant with the Assignee that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made to others by me and that full right to convey the same as herein expressed is possessed by me; and

6. Appoint Assignee, through its designee, my attorney-in-fact to execute, in my name and on my behalf, any and all documents required to effectuate this Assignment, specifically including, but not limited to, those documents specified above and any necessary corrective assignments.

This instrument is executed under seal and signed under the pains and penalties of perjury under the laws of the United States of America.

06/23/2014  
Date

*Parayil R. Ajikumar*  
Inventor: Parayil R. Ajikumar  
Address: 227 Charles Street, No. 110, Second Street No. 106  
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Witness:

6/23/2014  
Date

*Christine Santos*  
Signature

Name: Christine Santos

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Witness:

06/23/2014  
Date

*Ryan Philippe*  
Signature

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Date

\_\_\_\_\_  
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Address: 4 Russet Lane  
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Witness:

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Date

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Signature

Name: \_\_\_\_\_

Address: \_\_\_\_\_  
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and in and to the applications and all corresponding non-provisional, divisional, continuing, substitute, renewal, reissue and all other applications for Letters Patent, utility models, industrial designs or similar intellectual property rights which have been or shall be filed in the United States, internationally, and in any foreign country, including but not limited to China, Japan and Korea, on any of the inventions; and in and to all original and reissued patents which have been

or shall be issued in the United States or any other jurisdiction on the inventions, including the right to apply for patent rights in each foreign country and all rights to priority, including the right to claim priority for China, Japan and Korea, as well as the right to sue in its own name and recover damages for past infringement of any United States Letters Patent and foreign patent;

2. Confirm that, on or before October 27, 2010, I agreed and that I continue to agree that the Assignee may apply for and receive Letters Patent and utility model and industrial design registrations for the inventions in its own name; and when requested, without charge to but at the expense of the Assignee, I agree to carry out in good faith the intent and purpose of this assignment, by executing all non-provisional, divisional, continuing, substitute, renewal, reissue, and all other patent, utility model and industrial design applications on any and all the inventions, by executing all rightful oaths, assignments, powers of attorney and other papers, by communicating to the Assignee all facts known to me relating to the inventions and the history thereof, and generally by doing everything reasonably possible which the Assignee shall consider desirable for aiding in securing and maintaining proper protection for the inventions and for vesting title to the inventions and all applications for patents and all patents on the inventions, in the Assignee;

3. Request the Director of the United States Patent and Trademark Office to issue the Letters Patent to the Assignee;

4. Authorize and request Wolf, Greenfield & Sacks, P.C. to supply any missing patent/application identification information or correct any errors in the patent/application identification information provided above, whether discovered prior to or after recordation;

5. Covenant with the Assignee that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made to others by me and that full right to convey the same as herein expressed is possessed by me; and

6. Appoint Assignee, through its designee, my attorney-in-fact to execute, in my name and on my behalf, any and all documents required to effectuate this Assignment, specifically including, but not limited to, those documents specified above and any necessary corrective assignments.

This instrument is executed under seal and signed under the pains and penalties of perjury under the laws of the United States of America.



\_\_\_\_\_  
Date

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Inventor: Parayil K. Ajikumar  
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Date

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Signature

Name: \_\_\_\_\_

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6/10/2014  
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6/10/2014  
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