

# PATENT ASSIGNMENT

Electronic Version v1.1

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<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT																
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT																
<b>CONVEYING PARTY DATA</b>																	
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 70%;">Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr><td>Richard B. Bailey</td><td>05/12/2009</td></tr> <tr><td>Kevin T. Madden</td><td>04/23/2009</td></tr> <tr><td>Joshua Trueheart</td><td>05/04/2009</td></tr> <tr><td>Reed Doten</td><td>04/23/2009</td></tr> <tr><td>Maria Mayorga</td><td>04/23/2009</td></tr> <tr><td>Dan Dueppen</td><td>05/12/2009</td></tr> <tr><td>Joshua Griffin Dunn</td><td>04/23/2009</td></tr> </tbody> </table>		Name	Execution Date	Richard B. Bailey	05/12/2009	Kevin T. Madden	04/23/2009	Joshua Trueheart	05/04/2009	Reed Doten	04/23/2009	Maria Mayorga	04/23/2009	Dan Dueppen	05/12/2009	Joshua Griffin Dunn	04/23/2009
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<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td><b>Name:</b></td><td>Microbia, Inc.</td></tr> <tr><td><b>Street Address:</b></td><td>60 Westview St.</td></tr> <tr><td><b>City:</b></td><td>Lexington</td></tr> <tr><td><b>State/Country:</b></td><td>MASSACHUSETTS</td></tr> <tr><td><b>Postal Code:</b></td><td>02421</td></tr> </table>		<b>Name:</b>	Microbia, Inc.	<b>Street Address:</b>	60 Westview St.	<b>City:</b>	Lexington	<b>State/Country:</b>	MASSACHUSETTS	<b>Postal Code:</b>	02421						
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<b>CORRESPONDENCE DATA</b>																	
<p><b>Fax Number:</b> (617)502-5002</p> <p><i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i></p> <p><b>Phone:</b> 617-248-5000</p> <p><b>Email:</b> patentdocket@choate.com</p> <p><b>Correspondent Name:</b> Choate Hall &amp; Stewart, LLP</p> <p><b>Address Line 1:</b> Two International Place</p> <p><b>Address Line 4:</b> Boston, MASSACHUSETTS 02110</p>																	
<b>ATTORNEY DOCKET NUMBER:</b>	2005862-0053																

OP \$40.00 12443362

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**PATENT**  
**REEL: 022767 FRAME: 0615**

NAME OF SUBMITTER:

Margo H. Furman, PhD

Total Attachments: 11

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## ASSIGNMENT

In consideration of One Dollar (\$1.00) and other good and valuable consideration, the receipt of which is hereby acknowledged, each of the undersigned **Richard B. BAILEY of South Natick, Massachusetts, Kevin T. MADDEN of Arlington, Massachusetts, Joshua TRUEHEART of Concord, Massachusetts, Reed DOTEN of Framingham, Massachusetts, Maria MAYORGA of Medford, Massachusetts, Joshua Griffin DUNN of Boston, Massachusetts, and Dan DUEPPEN of Woburn, Massachusetts** hereby

Sells, assigns and transfers to **Microbia, Inc.**, having a place of business at **60 Westview St., Lexington, Massachusetts 02421**, its successors, assigns and legal representatives, all hereinafter referred to as the ASSIGNEE, his/her entire right, title and interest for the United States and all foreign countries; in and to any and all inventions which are disclosed in the application for United States Letters Patent entitled **"PRODUCTION OF CAROTENOIDS IN OLEAGINOUS YEAST AND FUNGI"** filed **March 27, 2009**, and given serial number **12/443,362**, in and to said application and all divisional, continuing, substitute, renewal, reissue, reexamination or other application for Letters Patent which has been or shall be filed in the United States or any foreign country on any of said inventions, and in and to all original and reissued patents which have been or shall be issued in the United States and all foreign countries on said inventions including the right to apply for patent rights in each foreign country and all rights to priority.

Agrees that said ASSIGNEE may apply for and receive Letters Patent for said inventions in its own name and when requested, without charge to but at the expense of said ASSIGNEE, agrees to carry out in good faith the intent and purpose of this Assignment by executing all divisional, continuing, substitute, renewal, reissue, reexamination and all other patent applications on any and all said inventions; by executing all rightful declarations, oaths, assignments and other papers; by communicating to said ASSIGNEE all facts known to him/her relating to said inventions and the history thereof, and generally by doing everything possible which said ASSIGNEE shall consider desirable for aiding in securing and maintaining proper patent protection for said inventions and for vesting title to said inventions and all applications for patents and all patents on said inventions, in said ASSIGNEE. Each of the undersigned also hereby appoints ASSIGNEE as its common agent for purposes of prosecuting international patent applications and any material patent applications for which such common agency is recognized.

Hereby requests the Honorable Commissioner of Patents and Trademarks to issue said Letters Patent to said ASSIGNEE.

Covenants with said ASSIGNEE that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made to others by him/her, and that full right to convey the same as herein expressed is possessed by him/her.

Attorney Docket No.: 2005862-0053

SIGNED this 12<sup>th</sup> day of May, 2009.

*Richard B. Bailey*  
Name: **Richard B. Bailey**

STATE OF Massachusetts  
COUNTY OF Middlesex SS.

Before me this 12<sup>th</sup> day of May, 2009, personally appeared **Richard B. Bailey** proved to me through satisfactory evidence of identity which was personally known to be the person whose name is signed on the preceding or attached document, and acknowledged that he/she executed the same, of his/her own free will and for the purposes set forth.

*Shannon M. Roberts*  
NOTARY PUBLIC *Shannon M. Roberts*

[Notary's Seal Here]

My Commission Expires: March 11, 2016



SHANNON M. ROBERTS  
NOTARY PUBLIC  
COMMONWEALTH OF MASSACHUSETTS  
MY COMMISSION EXPIRES  
MARCH 11, 2016

Attorney Docket No.: 2005862-0053

SIGNED this 23 day of April, 2009.

Kevin T. Madden  
Name: **Kevin T. Madden**

STATE OF Massachusetts  
COUNTY OF Middlesex SS.

Before me this 23<sup>rd</sup> day of April, 2009, personally appeared **Kevin T. Madden** proved to me through satisfactory evidence of identity which was \_\_\_\_\_ to be the person whose name is signed on the preceding or attached document, and acknowledged that he/she executed the same, of his/her own free will and for the purposes set forth.

Shannon M. Roberts  
NOTARY PUBLIC Shannon M. Roberts

[Notary's Seal Here]

My Commission Expires: March 11, 2016



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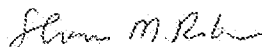
Attorney Docket No.: 2005862-0053

SIGNED this 4<sup>th</sup> day of May, 2009.

  
Name: **Joshua Trueheart**

STATE OF Massachusetts  
COUNTY OF Middlesex SS.

Before me this 4<sup>th</sup> day of May, 2009, personally appeared **Joshua Trueheart** proved to me through satisfactory evidence of identity which was personally known to be the person whose name is signed on the preceding or attached document, and acknowledged that he/she executed the same, of his/her own free will and for the purposes set forth.

  
NOTARY PUBLIC Shannon M. Roberts

[Notary's Seal Here]

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Attorney Docket No.: 2005862-0053

SIGNED this 23<sup>rd</sup> day of April, 2009.

Reed C. Doten  
Name: **Reed Doten**

STATE OF Massachusetts  
COUNTY OF Middlesex SS.

Before me this 23<sup>rd</sup> day of April, 2009, personally appeared **Reed Doten** proved to me through satisfactory evidence of identity which was personally known to be the person whose name is signed on the preceding or attached document, and acknowledged that he/she executed the same, of his/her own free will and for the purposes set forth.

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Attorney Docket No.: 2005862-0053

SIGNED this 23<sup>rd</sup> day of April, 2009.

Maria Mayorga  
Name: **Maria Mayorga**

STATE OF Massachusetts  
COUNTY OF Middlesex SS.

Before me this 23<sup>rd</sup> day of April, 2009, personally appeared **Maria Mayorga** proved to me through satisfactory evidence of identity which was personally known to be the person whose name is signed on the preceding or attached document, and acknowledged that he/she executed the same, of his/her own free will and for the purposes set forth.

Shannon M. Roberts  
NOTARY PUBLIC Shannon M. Roberts

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MARCH 11, 2016

Attorney Docket No.: 2005862-0053



See backpages

SIGNED this \_\_\_\_\_ day of \_\_\_\_\_, 200\_\_.

Name: **Joshua Griffin Dunn**

STATE OF \_\_\_\_\_  
SS.

COUNTY OF \_\_\_\_\_

Before me this \_\_\_\_\_ day of \_\_\_\_\_, 200\_\_, personally appeared **Joshua Griffin Dunn** proved to me through satisfactory evidence of identity which was \_\_\_\_\_ to be the person whose name is signed on the preceding or attached document, and acknowledged that he/she executed the same, of his/her own free will and for the purposes set forth.

NOTARY PUBLIC

[Notary's Seal Here]

My Commission Expires:

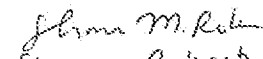
Attorney Docket No.: 2005862-0053

SIGNED this 12<sup>th</sup> day of May, 2007.

  
Name: **Dan Dueppen**

STATE OF Massachusetts  
COUNTY OF Middlesex SS.

Before me this 12<sup>th</sup> day of May, 2007, personally appeared **Dan Dueppen** proved to me through satisfactory evidence of identity which was personally known to be the person whose name is signed on the preceding or attached document, and acknowledged that he/she executed the same, of his/her own free will and for the purposes set forth.

  
NOTARY PUBLIC Shannon Roberts

[Notary's Seal Here]

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Sells, assigns and transfers to **Microbia, Inc.**, having a place of business at **60 Westview St., Lexington, Massachusetts 02421**, its successors, assigns and legal representatives, all hereinafter referred to as the ASSIGNEE, his/her entire right, title and interest for the United States and all foreign countries; in and to any and all inventions which are disclosed in the application for United States Letters Patent entitled "**PRODUCTION OF CAROTENOIDS IN OLEAGINOUS YEAST AND FUNGI**" filed **March 27, 2009**, and given serial number **12/443,362**, in and to said application and all divisional, continuing, substitute, renewal, reissue, reexamination or other application for Letters Patent which has been or shall be filed in the United States or any foreign country on any of said inventions, and in and to all original and reissued patents which have been or shall be issued in the United States and all foreign countries on said inventions including the right to apply for patent rights in each foreign country and all rights to priority. JGD

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Attorney Docket No.: 2005862-0053

# CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

State of California

County of San Francisco

On April 23, 2009

Date

before me, Adrian Borrero (Public Notary)

Here Insert Name and Title of the Officer

personally appeared Joshua Griffin Dunn

Name(s) of Signer(s)

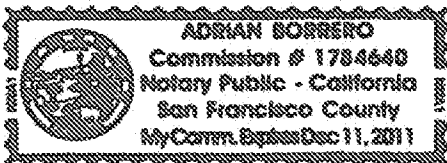
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature

Signature of Notary Public



Place Notary Seal Above

## OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

### Description of Attached Document

Title or Type of Document: Assignment for Attorney Docket # 2005862-0053

Document Date: April 23, 2009

Number of Pages: eight (8)

Signer(s) Other Than Named Above: \_\_\_\_\_

### Capacity(ies) Claimed by Signer(s)

Signer's Name: Joshua Griffin Dunn

☒ Individual

☐ Corporate Officer — Title(s): \_\_\_\_\_

☐ Partner — ☐ Limited ☐ General

☐ Attorney in Fact

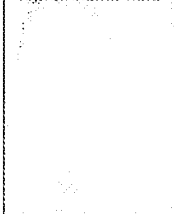
☐ Trustee

☐ Guardian or Conservator

☐ Other: \_\_\_\_\_

Signer Is Representing: \_\_\_\_\_

RIGHT THUMBPRINT  
OF SIGNER  
Top of thumb here



Signer's Name: \_\_\_\_\_

☐ Individual

☐ Corporate Officer — Title(s): \_\_\_\_\_

☐ Partner — ☐ Limited ☐ General

☐ Attorney in Fact

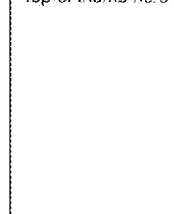
☐ Trustee

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☐ Other: \_\_\_\_\_

Signer Is Representing: \_\_\_\_\_

RIGHT THUMBPRINT  
OF SIGNER  
Top of thumb here



SIGNED this 23 day of April, 2009.

  
Name: **Joshua Griffin Dunn**

STATE OF \_\_\_\_\_  
SS.

COUNTY OF \_\_\_\_\_

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NOTARY PUBLIC

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My Commission Expires:

Attorney Docket No.: 2005862-0053

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RECORDED: 06/02/2009

**PATENT**  
**REEL: 022767 FRAME: 0627**