PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

| SUBMISSION TYPE: | NEW ASSIGNMENT |
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| NATURE OF CONVEYANCE: | ASSIGNMENT |

CONVEYING PARTY DATA

| Name | Execution Date |
|-----------------|----------------|
| Jimmy Dumornay | 04/23/2009 |
| Glen Rennie | 05/28/2009 |
| Gui Liu | 07/13/2009 |
| Darrell J. Koza | 07/14/2009 |
| Paul Sheahan | 04/01/2009 |

RECEIVING PARTY DATA

| Name: | Trustees of Tufts College |
|-----------------|---------------------------|
| Street Address: | Ballou Hall, 4th Floor |
| City: | Medford |
| State/Country: | MASSACHUSETTS |
| Postal Code: | 02155 |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 12351405 |

CORRESPONDENCE DATA

Fax Number: (617)542-2241

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

Phone: (617) 542-6000

Email: jfoley@mintz.com

Correspondent Name: lvor R. Elrifi

Address Line 1: One Financial Center

Address Line 2: Mintz, Levin

Address Line 4: Boston, MASSACHUSETTS 02111

ATTORNEY DOCKET NUMBER: 16534-519C02US

NAME OF SUBMITTER: Jennifer A. Karnakis

PATENT REEL: 023170 FRAME: 0654 OP \$40,00 12351405

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Total Attachments: 14
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ASSIGNMENT

We, Jimmy Dumornay, Glen Rennie, Gui Liu, Darrell J. Koza, Paul Sheahan, the undersigned, for good and valuable consideration, the receipt of which is hereby acknowledged, confirm that we have sold and assigned, and do hereby assign, sell and transfer to Trustees of Tufts College with offices at Ballou Hall, 4th Floor, Medford, Massachusetts 02155, and to its successors, assigns and legal representatives, collectively hereinafter referred to as the ASSIGNEE: (1) our entire right, title and interest for the United States and in all countries, in and to any and all inventions, discoveries and applications which are disclosed in the application for United States Letters Patent entitled:

9-SUBSTITUTED MINOCYCLINE COMPOUNDS

filed with the U.S. Patent and Trademark Office on **January 9, 2009** and assigned Application No. 12/351,405, including any subsequently filed utility applications, which claim priority to Application No. 12/1351,405, and including any renewals, revivals, reissues, reexaminations, extensions, continuations and divisions thereof and any substitute applications therefor; (2) the full and complete right to file patent applications in the name of the ASSIGNEE, its designee, or in my/our names as the ASSIGNEE, or its designee's election, on the aforesaid inventions, discoveries and applications in all countries of the world; (3) the entire right, title and interest in and to any Letters Patent which may issue thereon in the United States or in any country, and any renewals, revivals, reissues, reexaminations and extensions thereof, and any patents of confirmation, registration and importation of the same; and (4) the entire right, title and interest in all Convention and Treaty Rights of all kinds thereon, including without limitation all rights of priority in any country of the world, in and to the above inventions, discoveries and applications.

We hereby authorize and request the competent authorities to grant and to issue any and all such Letters Patent in the United States and throughout the world to the ASSIGNEE of the entire right, title and interest therein, as fully and entirely as the same would have been held and enjoyed by us had this assignment, sale and transfer not been made.

We agree, at any time, upon the request of the ASSIGNEE, to execute and to deliver to the ASSIGNEE any additional applications for patents for said inventions and discoveries, or any part or parts thereof, and any applications for patents of confirmation, registration and importation based on any Letters Patent issuing on said inventions, discoveries, or applications and divisions, continuations, renewals, revivals, reissues, reexaminations and extensions thereof.

We further agree at any time to execute and to deliver upon request of the ASSIGNEE such additional documents, if any, as are necessary or desirable to secure patent protection on said inventions, discoveries and applications throughout all countries of the world, and otherwise to do the necessary to give full effect to and to perfect the rights of the ASSIGNEE under this Assignment, including the execution, delivery and procurement of any and all further documents evidencing this assignment, transfer and sale as may be necessary or desirable.

We hereby covenant that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment.

First Inventor : Mark L. Nelson Application No. : 12/351,405 Filed : January 9, 2009

Page 2 of 6

We further covenant 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, litigation or proceeding related thereto and will promptly execute and deliver to ASSIGNEE or its legal representatives any and all papers, instruments or affidavits required to apply for, obtain, maintain, issue and 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.

| Date: | Signature of: Jimmy Dumornay |
|--|--|
| IN WITNESS WHEREOF, I, | , hereby declare (Printed Name of Witness) |
| that I was personally present and did sassignment. | see the above named person duly sign and execute the |
| (Signature of Witness) Date: | |
| IN WITNESS WHEREOF, I, | |
| that I was personally present and did assignment. | (Printed Name of Witness) see the above named person duly sign and execute the |
| (Signature of Witness) | |

| Filed Page 3 of 6 | : January 9, 2009 | |
|----------------------------|----------------------------|---|
| Date: | | Signature of: Glen Rennie |
| | | |
| IN WITNESS | S WHEREOF, I, | , hereby declare |
| | | (Printed Name of Witness) |
| that I was per assignment. | sonally present and did se | ee the above named person duly sign and execute the |
| (Signature of | Witness) | |
| Date: | | <u> </u> |
| IN WITNES | S WHEREOF, I, | |
| | | (Printed Name of Witness) |
| that I was perassignment. | rsonally present and did s | ee the above named person duly sign and execute the |
| (Signature of | Witness) | |

First Inventor : Mark L. Nelson Application No. : 12/351,405

Date: _____

First Inventor : Mark L. Nelson Application No. : 12/351,405 : January 9, 2009 Filed Page 4 of 6 Date: 7/13/09 Signature of: Gui Liu IN WITNESS WHEREOF, I, DANA SHKOLNY , hereby declare (Printed Name of Witness) that I was personally present and did see the above named person duly sign and execute the assignment. Date: 7/13/09 IN WITNESS WHEREOF, I, that I was personally present and did see the above named person duly sign and execute the assignment,

Date: 7/13/09

| Page 5 of 6 | |
|---|--|
| Date: | Signature of: Darrell J. Koza |
| IN WITNESS WHEREOF, I, | , hereby declare (Printed Name of Witness) |
| that I was personally present and did see the assignment. | above named person duly sign and execute the |
| (Signature of Witness) | |
| Date: | |
| IN WITNESS WHEREOF, I, | , hereby declare |
| | (Printed Name of Witness) |
| that I was personally present and did see the assignment. | above named person duly sign and execute the |
| (Signature of Witness) | |

First Inventor : Mark L. Nelson Application No. : 12/351,405

Filed

: January 9, 2009

Date: _____

First Inventor : Mark L. Nelson Application No. : 12/351,405 Filed : January 9, 2009 Page 6 of 6 4/1/09 Date: Signature of: Paul Sheahan IN WITNESS WHEREOF, I, Travis Hill , hereby declare (Printed Name of Witness) that I was personally present and did see the above named person duly sign and execute the assignment. (Signature of Witness) Date: 4/1/2009

Pacnel Ardonain, hereby declare
(Printed Name of Witness) IN WITNESS WHEREOF, I, __

that I was personally present and did see the above named person duly sign and execute the assignment.

(Signature of Witness)

Date: 4 1 09

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ASSIGNMENT

1 1

We, Jimmy Dumornay, Glen Rennie, Gui Liu, Darrell J. Koza, Paul Sheahan, the undersigned, for good and valuable consideration, the receipt of which is hereby acknowledged, confirm that we have sold and assigned, and do hereby assign, sell and transfer to Trustees of Tufts College with offices at Ballou Hall, 4th Floor, Medford, Massachusetts 02155, and to its successors, assigns and legal representatives, collectively hereinafter referred to as the ASSIGNEE: (1) our entire right, title and interest for the United States and in all countries, in and to any and all inventions, discoveries and applications which are disclosed in the application for United States Letters Patent entitled:

9-SUBSTITUTED MINOCYCLINE COMPOUNDS

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First Inventor **Application No.** : 12/351,405

: Mark L. Nelson

Filed

: January 9, 2009

Page 2 of 4

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| Date: | 4/23/2009 | Signature of: Jimmy Dumornay |
|----------------|---|---|
| | Florida | |
| County of _ | Hillsborough | <u> </u> |
| On this 2 | 3 day of April | , 2009, before me, the undersigned notary public, |
| | | roved to me through satisfactory evidence of |
| identification | n, which was a FIDL 10565 43 | 37787770, to be the person whose name is signed on |
| | *************************************** | to me that the contents of this document are truthful and |

Tunnud NORMA RECIO Notary Public, State of Florida Notary Public Commission# DD686188 My comm. expires June 17, 2011

accurate to the best of his/her knowledge and belief.

My commission expires 6/17/2011

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| Filed : January 9, 2009 Page 3 of 4 | |
|--|--|
| Date: 5/28/2009 | 9 |
| Date | Signature of: Glen Rennie |
| Date: 5/28/2009 State of MUSSACHUSCHS County of NOVFOIK | <u> </u> |
| personally appeared Glen Rennie, prove which was a V.S., Possou(+ *2025 28 | |
| Date: | Signature of: Gui Liu |
| State of | |
| State of County of | |
| On this day of | , 2009, before me, the undersigned notary public, me through satisfactory evidence of identification, which the person whose name is signed on this document and . ntents of this document are truthful and accurate to the best |
| | Notary Public |
| | My commission expires |

First Inventor : Mark L. Nelson Application No. : 12/351,405 First Inventor : Mark L. Nelson Application No. : 12/351,405 Filed : January 9, 2009

Page 4 of 4

| Date: | |
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| Date: | Signature of: Darrell J. Koza |
| State of | |
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| personally appeared Darrell J. Koza, proved | 2009, before me, the undersigned notary public, to me through satisfactory evidence of identification, be the person whose name is signed on this document atents of this document are truthful and accurate to the |
| | Notary Public |
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| Date: | Signature of: Paul Sheahan |
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| personally appeared Paul Sheahan , proved to which was a, to be | 2009, before me, the undersigned notary public, o me through satisfactory evidence of identification, be the person whose name is signed on this document attents of this document are truthful and accurate to the |
| | Notary Public |
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ASSIGNMENT

We, Jimmy Dumornay, Glen Rennie, Gui Liu, Darrell J. Koza, Paul Sheahan, the undersigned, for good and valuable consideration, the receipt of which is hereby acknowledged, Pauconfirm that we have sold and assigned, and do hereby assign, sell and transfer to Trustees of Tufts College with offices at Ballou Hall, 4th Floor, Medford, Massachusetts 02155, and to its successors, assigns and legal representatives, collectively hereinafter referred to as the ASSIGNEE: (1) our entire right, title and interest for the United States and in all countries, in and to any and all inventions, discoveries and applications which are disclosed in the application for United States Letters Patent entitled:

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First Inventor : Mark L. Nelson **Application No.** : 12/351,405 Filed

: January 9, 2009

Page 2 of 4

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| Date: | |
|---|---|
| | Signature of: Jimmy Dumornay |
| State of | |
| County of | |
| personally appeared Jimmy Du identification, which was a | , 2009, before me, the undersigned notary public, mornay, proved to me through satisfactory evidence of, to be the person whose name is signed on r affirmed to me that the contents of this document are truthful and nowledge and belief. |
| | Notary Public |
| | My commission expires |

First Inventor : Mark L. Nelson Application No. : 12/351,405 Filed : January 9, 2009

| Date: | |
|---|---|
| | Signature of: Glen Rennie |
| State of | |
| County of | |
| personally appeared Glen Rennie, p which was a | , 2009, before me, the undersigned notary public, proved to me through satisfactory evidence of identification,, to be the person whose name is signed on this document at the contents of this document are truthful and accurate to the contents. |
| | Notary Public |
| | My commission expires |
| Date: | Signature of: Gui Liu |
| State of | |
| County of | |
| personally appeared Gui Liu , proved was a, to | , 2009, before me, the undersigned notary public, d to me through satisfactory evidence of identification, which o be the person whose name is signed on this document and e contents of this document are truthful and accurate to the best |
| | Notary Public |
| | My commission expires |

| Filed : January 9, 2009 Page 4 of 4 | |
|---|--|
| Date: July 14, 2009 | Signature of: Darrell L Koza |
| State of Thole Island County of Washington | - |
| which was a to b | to me through satisfactory evidence of identification, be the person whose name is signed on this document atents of this document are truthful and accurate to the Notary Public |
| | My commission expires 8-30-09 |
| Date: | Signature of: Paul Sheahan |
| State of | |
| County of | - |
| personally appeared Paul Sheahan , proved to which was a, to b | 009, before me, the undersigned notary public, o me through satisfactory evidence of identification, be the person whose name is signed on this document tents of this document are truthful and accurate to the |
| | Notary Public |
| | My commission expires |

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RECORDED: 08/31/2009

First Inventor : Mark L. Nelson Application No. : 12/351,405