

<b>PATENT ASSIGNMENT COVER SHEET</b>
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Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT6845369

<b>SUBMISSION TYPE:</b>	CORRECTIVE ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	Corrective Assignment to correct the SPELLING OF THE THIRD INVENTOR'S NAME WHICH WAS CORRECT ON THE ASSIGNMENT DOCUMENT BUT RECORDED INCORRECTLY previously recorded on Reel 045806 Frame 0262. Assignor(s) hereby confirms the INVENTOR'S NAME IS MICHELLE NOT MICHELLE.

**CONVEYING PARTY DATA**

Name	Execution Date
CHASE LAWRENCE BIESEL	03/19/2018
AHMED ABDELSHAFY MAHMOUD GOMAA	01/24/2018
MICHELLE LUO	01/22/2018

**RECEIVING PARTY DATA**

<b>Name:</b>	NORTH CAROLINA STATE UNIVERSITY
<b>Street Address:</b>	1021 MAIN CAMPUS DRIVE, 2ND FLOOR
<b>City:</b>	RALEIGH
<b>State/Country:</b>	NORTH CAROLINA
<b>Postal Code:</b>	27606

**PROPERTY NUMBERS Total: 1**

Property Type	Number
<b>Application Number:</b>	15735028

**CORRESPONDENCE DATA**

**Fax Number:** (650)493-6811

*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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**Email:** lmiller@wsgr.com, patentdocket@wsgr.com

**Correspondent Name:** WILSON SONSINI GOODRICH & ROSATI

**Address Line 1:** 650 PAGE MILL ROAD

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<b>ATTORNEY DOCKET NUMBER:</b>	53240-703.831
<b>NAME OF SUBMITTER:</b>	LESLIE S. MILLER
<b>SIGNATURE:</b>	/Leslie S. Miller/
<b>DATE SIGNED:</b>	08/03/2021

**Total Attachments: 8**

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## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

EPAS ID: PAT4894508

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
CHASE LAWRENCE BEISEL	03/19/2018
AHMED ABDELSHAFY MAHMOUD GOMAA	01/24/2018
MICHELE LUO	01/22/2018
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	NORTH CAROLINA STATE UNIVERSITY
<b>Street Address:</b>	1021 Main Campus Drive, 2nd Floor
<b>City:</b>	RALEIGH
<b>State/Country:</b>	NORTH CAROLINA
<b>Postal Code:</b>	27606
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	15735028
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(919)854-1401
<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>	919-854-1400
<b>Email:</b>	msweazey@myersbigel.com
<b>Correspondent Name:</b>	MYERS BIGEL, P.A.
<b>Address Line 1:</b>	4140 PARKLAKE AVE
<b>Address Line 2:</b>	SUITE 600
<b>Address Line 4:</b>	RALEIGH, NORTH CAROLINA 27612
<b>ATTORNEY DOCKET NUMBER:</b>	5051-885
<b>NAME OF SUBMITTER:</b>	MELISSA SWEAZEY
<b>SIGNATURE:</b>	/mls/
<b>DATE SIGNED:</b>	04/02/2018
<b>Total Attachments: 6</b>	
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ASSIGNMENT

THIS ASSIGNMENT, made by us, Chase Lawrence Beisel, a citizen of the United States of America, having a mailing address of 807 E. Edenton St., Raleigh, North Carolina 27601; and; Ahmed Abdelshafy Mahmoud Gomaa, a citizen of Egypt, having a mailing address of 612 General Jos Martin Circle, Apt. 103, Raleigh, NC 27606; Michelle Luo, a citizen of the United States of America, residing at ~~440 Donaldson Dr., Cary, North Carolina 27511,~~ and

410 Overton St. BAL  
Apt. 516 01-22-18  
West Palm Beach, FL 33401

WITNESSETH: That,

WHEREAS, we are joint inventors of certain new and useful improvements in **METHODS AND COMPOSITIONS FOR EFFICIENT DELIVERY OF NUCLEIC ACIDS AND RNA-BASED ANTIMICROBIALS** for which U.S. Patent Application No. 15/735,028 was filed on December 8, 2017, in the United States Patent and Trademark Office; and for which Patent Cooperation Treaty (PCT) Application No. PCT/US2016/037493 was filed on June 15, 2016; and for which U.S. Provisional Application No. 62/175,749 was filed on June 15, 2015, in the United States Patent and Trademark Office; and

WHEREAS, North Carolina State University, a constituent institution of The University of North Carolina and an educational institution chartered under the laws of the State of North Carolina, having a principal office at 1021 Main Campus Drive, 2<sup>nd</sup> Floor, Raleigh, North Carolina, 27606, hereinafter referred to as assignee, is desirous of acquiring my entire right, title and interest in and to said invention as described in said application(s), and in and to any and all Letters Patent which shall be granted therefor in the United States of America and all foreign countries;

NOW, THEREFORE, To Whom It May Concern, be it known that for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, we have sold and by these presents do hereby sell, assign, transfer and convey unto said assignee, its successors and assigns, the entire right, title, and interest in and to the said invention and application(s), and in and to any and all continuations, continuations-in-part, or divisions thereof, and in and to any and all Letters Patent of the United States of America and all foreign countries or reissues or other forms of protection thereof which may be granted therefor or thereon, for the full end of the term for which said Letters Patent may be granted along with any term extensions thereon or therefor,

accordance with the International Convention, the same to be held and enjoyed by said assignee, its successors and assigns, as fully and entirely as the same would have been held and enjoyed by us if this assignment and sale had not been made.

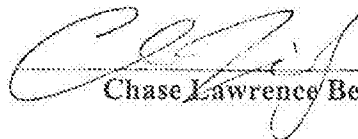
We hereby request that said Letters Patent be issued in accordance with this assignment.

To the extent we have not already assigned our rights to the assignee and/or are not already obligated to assign our rights to the assignee, we further covenant and agree that, at the time of the execution and delivery of these presents, as to any third party, we possess full title to the invention and provisional application above-mentioned, and that we have the unencumbered right and authority to make this assignment.

We further covenant and agree to promptly communicate to said assignee or its representatives any facts known to us relating to said invention, to testify in any interference or legal proceedings involving said invention, to execute any additional papers which may be requested to confirm the right of the assignee, its representatives, successors, or assigns to secure patent or similar protection for the said invention in all countries and to vest in the assignee complete title to the said invention and Letters Patent, without further compensation, but at the expense of said assignee, its successors, assigns, and other legal representatives; and we hereby instruct, and further covenant and agree to bind our heirs, legal representatives, and assigns, to do same, without further compensation, but at the expense of said assignee or its representatives.

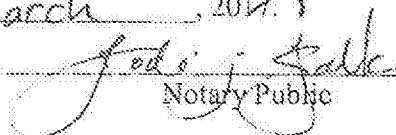
IN WITNESS WHEREOF, I have hereunto set my hand and seal on this 19<sup>th</sup> day of

March, 2017  
2018

  
Chase Lawrence Beisel

STATE OF North Carolina  
COUNTY OF Wake ) SS:

Before me personally appeared the person described in and who executed the foregoing instrument, and he/she acknowledged to me that he/she executed the same for the purposes therein stated, this 19<sup>th</sup> day of March, 2017.

  
Notary Public



My Commission Expires: July 29, 2019

IN WITNESS WHEREOF, I have hereunto set my hand and seal on this 24 day of January, 2017.

[Signature]  
Ahmed Abdelshafy Mahmoud Gomaa

STATE OF North Carolina  
COUNTY OF Wake ) ss:

Before me personally appeared the person described in and who executed the foregoing instrument, and he/she acknowledged to me that he/she executed the same for the purposes therein stated, this 24<sup>th</sup> day of January, 2017.

[Signature]  
Notary Public



My Commission Expires: July 29, 2019





WHEREBY North Carolina State University acknowledges and accepts the assignment;

IN WITNESS WHEREOF, I have hereunto set my hand and seal on this 19 day of March, 2017. The undersigned warrants and represents that he/she has the authority to sign this Assignment on behalf of the Assignee, North Carolina State University.

By: [Signature]  
Kultaran Chohan, Ph.D., LL.M.  
Director of Licensing

STATE OF NORTH CAROLINA)

) ss:

COUNTY OF WAKE )

Before me personally appeared the person described in and who executed the foregoing instrument, and he/she acknowledged to me that he/she executed the same for the purposes therein stated, this 19 day of March, 2017.



[Signature]  
Notary Public - Jodi J. Falk