

## 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>
	BRYAN ROTH	08/12/2016
<b>RECEIVING PARTY DATA</b>		
<b>Name:</b>	THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL	
<b>Street Address:</b>	100 EUROPA DR., SUITE 430	
<b>City:</b>	CHAPEL HILL	
<b>State/Country:</b>	NORTH CAROLINA	
<b>Postal Code:</b>	27517	
<b>PROPERTY NUMBERS Total: 2</b>		
	<b>Property Type</b>	<b>Number</b>
	<b>PCT Number:</b>	US2016040553
	<b>Application Number:</b>	16921843
<b>CORRESPONDENCE DATA</b>		
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<b>Address Line 4:</b>	BOSTON, MASSACHUSETTS 02111	
<b>ATTORNEY DOCKET NUMBER:</b>	048536-561D01US	
<b>NAME OF SUBMITTER:</b>	LUIS JARAMILLO, PATENT SPECIALIST	
<b>SIGNATURE:</b>	/Luis Jaramillo/	
<b>DATE SIGNED:</b>	08/18/2022	
<b>Total Attachments: 3</b>		
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## ASSIGNMENT

WHEREAS I, Bryan Roth, a citizen of the United States of America residing at 3655 Pineview Circle, Durham, North Carolina 27705 am a co-inventor of certain new and useful improvements in the invention and patent application(s) as set forth in “*MU Opioid Receptor Modulators*”, U.S. Provisional Application No. 62/190,390 filed on July 9, 2015 in the United States Patent and Trademark Office.

NOW, THEREFORE, To All Whom It May Concern, be it known that for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I have sold and do hereby sell, assign, transfer, and convey to THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL, 100 Europa Dr., Suite 430, Chapel Hill, NC, 27517 (hereinafter the “Assignee”) its successors and assigns, the entire right, title, and interest in and to the invention and patent application(s) and in and to any and all subsequent patent applications which claim the benefit of priority from said application including regular utility, continuation, continuation-in-part, and divisions thereof, 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, for the full end of the term for which said patents may be granted along with any term extensions, together with the right to claim the priority of said application in all foreign countries, 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 me if this assignment and sale had not been made.

I covenant and agree that, at the time of the execution and delivery of this assignment, I possesses full title to the invention and patent application, and that I have the unencumbered right and authority to make this assignment and I hereby authorize the Assignee to file patent applications in any and all countries on any or all said inventions in my name or in the name of the Assignee or otherwise as the Assignee may deem necessary under U.S. and international patent laws.

I further covenant and agree to promptly communicate to said Assignee or its representatives any facts known to the me relating to said invention, to testify in any

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**PATENT**  
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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 I hereby instruct, and further covenant and agree to bind my legal representatives and assigns, to do same, without further compensation, but at the expense of said Assignee or its representatives.

I hereby grant an authorized representative of Assignee the power to insert in this Assignment any further identification that may be necessary to comply with the rules of the U.S. Patent and Trademark Office for recordation of this Assignment.

IN WITNESS WHEREOF, I have hereto set my hand and seal on this 12 day of August, 2016.

By: Bryan Roth (SEAL)

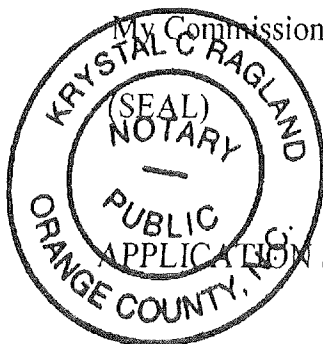
STATE OF North Carolina )  
COUNTY OF Orange ) ss:

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 12<sup>th</sup> day of August, 2016

Krystal C. Ragland  
Notary Public

My Commission Expires:

06/20/2017



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WHEREBY The University of North Carolina at Chapel Hill acknowledges and accepts the assignment;

IN WITNESS WHEREOF, I have hereunto set my hand and seal on this 18<sup>th</sup> day of August, 2016. The undersigned warrants and represents that he/she has the authority to sign this Assignment on behalf of the Assignee, The University of North Carolina at Chapel Hill.

By: Jacqueline Quay (SEAL)  
Jacqueline Quay  
Director of Licensing

STATE OF NORTH CAROLINA )  
 ) ss:  
COUNTY OF ORANGE )

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 18<sup>th</sup> day of August, 2016.

Doris Bonita Perry  
Notary Public



Commission Expires:

June 28, 2020

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