

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

EPAS ID: PAT4912601

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
KARL DEISSEROTH	03/01/2013
FENG ZHANG	01/28/2013
VIVIANA GRADINARU	09/08/2016
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	THE BOARD OF TRUSTEES OF THE LELAND STANFORD JUNIOR UNIVERSITY
<b>Street Address:</b>	OFFICE OF THE GENERAL COUNSEL
<b>Internal Address:</b>	BUILDING 170, 3RD FLOOR, MAIN QUAD P.O. BOX 20386
<b>City:</b>	STANFORD
<b>State/Country:</b>	CALIFORNIA
<b>Postal Code:</b>	94305-2038
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	15799881
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(650)327-3231
<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>	6503273400
<b>Email:</b>	lam@bozpat.com
<b>Correspondent Name:</b>	BOZICEVIC FIELD & FRANCIS LLP
<b>Address Line 1:</b>	201 REDWOOD SHORES PARKWAY
<b>Address Line 2:</b>	SUITE 200
<b>Address Line 4:</b>	REDWOOD CITY, CALIFORNIA 94065
<b>ATTORNEY DOCKET NUMBER:</b>	STAN-896DIV3
<b>NAME OF SUBMITTER:</b>	PAULA A. BORDEN
<b>SIGNATURE:</b>	/Paula A. Borden, Reg. No. 42,344/
<b>DATE SIGNED:</b>	04/12/2018
<b>Total Attachments: 5</b>	
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source=STAN-896DIV2 EXECUTED Assignment#page5.tif

ASSIGNMENT OF APPLICATION

Atty Docket No. STAN-896WO

Page 1 of 2

THIS ASSIGNMENT, by Deisseroth, Karl A. residing in Palo Alto, California, Zhang, Feng residing in Cambridge, Massachusetts, (hereinafter referred to as the assignors), witnesseth:

WHEREAS, the said assignors have invented certain new and useful improvements in:

"Opsin Polypeptides and Methods of Use Thereof"

X filed on December 12, 2012 as PCT International Application No. PCT/US2012/069133 designating the United States.
for which an application for a United States Patent was executed on \_\_\_\_\_, and

WHEREAS, The Board of Trustees of the Leland Stanford Junior University, a non-profit organization duly organized under and pursuant to the laws of California, and having its principal place of business at 1705 El Camino Real, Palo Alto, California 94306-1106 (hereinafter referred to as the assignee), is desirous of acquiring their right, title and interest in and to said invention and said application for Letters Patent of the United States, and in and to any Letters Patent or Patents, United States or foreign, to be obtained therefor and thereon:

NOW THEREFORE, for good and sufficient considerations, the receipt of which is hereby acknowledged, said assignors have sold, assigned, transferred and set over, and by these presents do sell, assign, transfer and set over, unto the assignee, its successors, legal representatives and assigns, all of their right, title and interest in and to the above-mentioned invention, application for Letters Patent, and any and all Letters Patent or Patents in the United States of America and all foreign countries which may be granted therefor and thereon, and in and to any and all divisions, continuations, and continuations-in-part of said application, or reissues or extensions of said Letters Patent or Patents, and all rights under the International Convention for the Protection of Industrial Property, the same to be held and enjoyed by said assignee, for its own use and behalf and the use and behalf of its successors, legal representatives and assigns, to the full end of the term or terms for which Letters Patent or Patents may be granted, as fully and entirely as the same would have been held and enjoyed by the assignors, had this sale and assignment not been made.

AND for the same consideration, said assignors hereby covenant and agree to and with said assignee, its successors, legal representatives and assigns, that, at the time of execution and delivery of these presents, no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment and that said assignors have good and full right and lawful authority to sell and convey the same in the manner herein set forth.

AND for the same consideration, said assignors hereby covenant and agree to and with said assignee, its successors, legal representatives and assigns, that said assignors will, whenever counsel of said assignee, or the counsel of its successors, legal representatives and assigns, shall advise that any proceeding in connection with said invention, or said application for Letters Patent, or any proceeding in connection with Letters Patent for said invention in any country, including interference proceedings, is lawful and desirable, or that any division, continuation or continuation-in-part of any application for Letters Patent or any reissue or extension of any Letters Patent, to be obtained thereon, is lawful and desirable, sign all papers and documents, take all lawful oaths, and do all acts necessary or required to be done for the procurement, maintenance, enforcement and defense of Letters Patent for said invention, without charge to said assignee, its successors, legal representatives and assigns, but at the cost and expense of said assignee, its successors, legal representatives and assigns.

AND said assignors hereby request the Commissioner of Patents to issue said Letters Patent of the United States to said assignee as the assignee of said invention and the Letters Patent to be issued thereon for the use and behalf of said assignee, its successors, legal representatives and assigns.

Date 3/1/13

Name of Inventor [Signature]
Deisseroth, Karl A.

Date \_\_\_\_\_

Name of Inventor \_\_\_\_\_
Zhang, Feng

ASSIGNMENT OF APPLICATION

Atty Docket No. STAN-896WO

Page 1 of 2

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NOW THEREFORE, for good and sufficient considerations, the receipt of which is hereby acknowledged, said assignors have sold, assigned, transferred and set over, and by these presents do sell, assign, transfer and set over, unto the assignee, its successors, legal representatives and assigns, all of their right, title and interest in and to the above-mentioned invention, application for Letters Patent, and any and all Letters Patent or Patents in the United States of America and all foreign countries which may be granted therefor and thereon, and in and to any and all divisions, continuations, and continuations-in-part of said application, or reissues or extensions of said Letters Patent or Patents, and all rights under the International Convention for the Protection of Industrial Property, the same to be held and enjoyed by said assignee, for its own use and behalf and the use and behalf of its successors, legal representatives and assigns, to the full end of the term or terms for which Letters Patent or Patents may be granted, as fully and entirely as the same would have been held and enjoyed by the assignors, had this sale and assignment not been made.

AND for the same consideration, said assignors hereby covenant and agree to and with said assignee, its successors, legal representatives and assigns, that, at the time of execution and delivery of these presents, no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment and that said assignors have good and full right and lawful authority to sell and convey the same in the manner herein set forth.

AND for the same consideration, said assignors hereby covenant and agree to and with said assignee, its successors, legal representatives and assigns, that said assignors will, whenever counsel of said assignee, or the counsel of its successors, legal representatives and assigns, shall advise that any proceeding in connection with said invention, or said application for Letters Patent, or any proceeding in connection with Letters Patent for said invention in any country, including interference proceedings, is lawful and desirable, or that any division, continuation or continuation-in-part of any application for Letters Patent or any reissue or extension of any Letters Patent, to be obtained thereon, is lawful and desirable, sign all papers and documents, take all lawful oaths, and do all acts necessary or required to be done for the procurement, maintenance, enforcement and defense of Letters Patent for said invention, without charge to said assignee, its successors, legal representatives and assigns, but at the cost and expense of said assignee, its successors, legal representatives and assigns.

AND said assignors hereby request the Commissioner of Patents to issue said Letters Patent of the United States to said assignee as the assignee of said invention and the Letters Patent to be issued thereon for the use and behalf of said assignee, its successors, legal representatives and assigns.

Date \_\_\_\_\_

Name of Inventor \_\_\_\_\_

Deisseroth, Karl A.

Date 1-28-2013

Name of Inventor 

Zhang, Feng

PATENT

REEL: 045521 FRAME: 0966

**ASSIGNMENT OF APPLICATION**

Atty Docket No. STAN-896WO  
US2012/069133 Filed December 12, 2012  
Page 2 of 2

Hereby accepted on behalf of the assignee

*Katharine Ku*

Signature

March 6, 2013

Katharine Ku

Date

Name (print)

Director of Technology Licensing, Stanford University

Title and Company

ASSIGNMENT

For good and valuable consideration, the receipt of which is hereby acknowledged, ASSIGNOR(S),

1. Viviana Gradinaru

hereby sells, assigns and transfers to ASSIGNEE, **THE BOARD OF TRUSTEES OF THE LELAND STANFORD JUNIOR UNIVERSITY**, a non-profit organization duly organized under and pursuant to the laws of California, having its principal place of business at the **OFFICE OF THE GENERAL COUNSEL, BUILDING 170, 3<sup>RD</sup> FLOOR, MAIN QUAD, P.O. BOX 20386, STANFORD, CA 94305-2038**, and the successors, assigns and legal representatives of the ASSIGNEE all of its right, title and interest for the United States and its territorial possessions and in all foreign countries in and to, any and all improvements which are disclosed in the invention entitled:

"OPSIN POLYPEPTIDES AND METHODS OF USE THEREOF"

and which is found in

(a) X U.S. Application Serial No. 15/097,925 filed on April 13, 2016  
(b)          PCT Patent Application No.                                  filed on                                 

and any legal equivalent thereof in a foreign country, including the right to claim priority and, in and to, all Letters Patent to be obtained for said invention by the above application or any continuation, division, continuation-in-part, extension, conversion to 35 USC 111(a) or substitute thereof, and any reissue, reexamination or extension of said Letters Patent and all rights under all International Conventions for the Protection of Industrial Property;

ASSIGNOR(S) hereby agrees that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment;

ASSIGNOR(S) further agrees 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, post grant review, inter partes review, litigation, or proceeding relating thereto and will promptly execute and deliver to ASSIGNEE or its legal representative any and all papers, instruments or affidavits required to apply for, obtain, maintain, issue or 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. An attorney of record is authorized and requested by the execution of this assignment to insert into this assignment the filing date and serial number of said application when officially known.

AND the ASSIGNOR(S) requests the Commissioner of Patents and Trademarks to issue said Letters Patent of the United States and any reissue or extension thereof to the ASSIGNEE.

Executed this

Signature of Inventor(s)

8<sup>th</sup> day of September 2016



**Viviana Gradinaru**

**Hereby accepted on behalf of the assignee:**

/Paula A. Borden/

Patent Agent

October 24, 2016

Name

Title

Date