506928185 10/18/2021

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	ASSIGNMENT	

CONVEYING PARTY DATA

Name	Execution Date
HOWARD HUGHES MEDICAL INSTITUTE	10/07/2021

RECEIVING PARTY DATA

Name:	CALIFORNIA INSTITUTE OF TECHNOLOGY		
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State/Country:	CALIFORNIA		
Postal Code:	91125		

PROPERTY NUMBERS Total: 3

Property Type	Number	
Application Number:	17460120	
PCT Number:	US2021048100	
Application Number:	63072014	

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ATTORNEY DOCKET NUMBER:	30KJ-302435-P/US/WO	
NAME OF SUBMITTER:	Y. PAUL CHANG	
SIGNATURE:	/ Y. Paul Chang /	
DATE SIGNED:	10/18/2021	

Total Attachments: 2

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PATENT REEL: 057825 FRAME: 0622 506928185

App. No.: 17/460,120

Docket No: 30KJ-302435-US / CIT 8514

Filing Date: August 27, 2021

App. No.: PCT/US2021/048100

Docket No: 30KJ-302435-WO / CIT 8514-PCT

Filing Date: August 27, 2021

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ASSIGNMENT

WHEREAS, **Howard Hughes Medical Institute**, a Delaware Corporation, having an address at 4000 Jones Bridge Road, Chevy Chase, MD, 20815-6789 (hereinafter "ASSIGNOR"), have rights and interests in certain new and useful improvements, technology, inventions, developments, ideas, ornamental design or discoveries related to **SYNTHETIC MAMMALIAN SIGNALING CIRCUITS FOR ROBUST CELL POPULATION CONTROL** (collectively hereinafter referred to as the "Work") for which patent applications have been filed (identified above) with the United States Patent and Trademark Office (hereinafter the "Application");

AND WHEREAS, **California Institute of Technology**, having an address at 1200 E. California Blvd., Pasadena, CA 91125 (hereinafter the "ASSIGNEE"), desires to acquire the entire right, title, and interest in and to the Application and the Work.

AND WHEREAS the ASSIGNOR has appointed **Michael B. Elowitz** as its agent for the purposes of assigning its right, title, and interest in and to the Application and Work to ASSIGNEE.

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, ASSIGNOR hereby acknowledges that ASSIGNOR has sold, assigned, transferred and set over, and by these presents does hereby sell, assign, transfer and set over, unto said ASSIGNEE, its successors, legal representatives and assigns, the entire right, title, and interest throughout the world in the Application and the Work, including all provisional applications relating thereto (including but not limited to U.S. Provisional Application No. 63/072,014, filed August 28, 2020), and all non-provisional applications claiming priority thereto, including, all divisions, continuations, continuations-in-part, reissues, and reexaminations thereof, and all Letters Patent of the United States which may be granted thereon and all reissues and extensions thereof, and all rights of priority under International Conventions and any related Letters Patent which may hereafter be granted or filed in any country or countries foreign to the United States, all extensions, renewals and reissues thereof; and ASSIGNOR hereby authorizes and requests the Commissioner of Patents of the United States, and any Official of any country or countries foreign to the United States, whose duty it is to issue patents on applications as aforesaid, to issue all related Letters Patent to the ASSIGNEE, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

AND ASSIGNOR DOES HEREBY sell, assign, transfer, and convey to ASSIGNEE, its successors, legal representatives, and assigns, all claims for damages and all remedies arising out of any violation of the rights assigned hereby that may have accrued prior to the date of assignment to ASSIGNEE, or may accrue hereafter, including, but not limited to, the right to sue for, collect, and retain damages for past infringements of said Letters Patent before or after issuance.

AND ASSIGNOR DOES HEREBY covenant and agree that ASSIGNOR will communicate to said ASSIGNEE, its successors, legal representatives and assigns, any facts known to ASSIGNOR respecting the Work, and testify in any legal proceeding, assist in the preparation of any other provisional or non-provisional applications relating to the Application and the Work or any improvements made thereto, sign all lawful papers, authorize the filing of and execute and make all rightful oaths and/or declarations in connection with the Application and the Work including any improvements made thereto, any patent applications filed therefrom, and any continuing application filed from any of the aforementioned applications, and generally do everything possible to aid the ASSIGNEE, its successors, legal representatives and assigns, to obtain and enforce proper patent protection for the Work in all countries.

PATENT REEL: 057825 FRAME: 0623 App. No.: 17/460,120

Docket No: 30KJ-302435-US / CIT 8514

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Filing Date: August 27, 2021

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ASSIGNOR (Conveying Party)

Howard Hughes Medica	l Institute, a	Delaware	Corporation
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By: Michael Howitz

Michael B. Elowitz

Agent for Howard Hughes Medical Institute

Date: $\frac{10/7/2021}{}$

PATENT REEL: 057825 FRAME: 0624

RECORDED: 10/18/2021