506945893 10/27/2021

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6992730

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
HOWARD HUGHES MEDICAL INSTITUTE	10/25/2021

RECEIVING PARTY DATA

Name:	THE BOARD OF TRUSTEES OF THE LELAND STANFORD JUNIOR UNIVERSITY	
Street Address:	treet Address: OFFICE OF THE GENERAL COUNSEL	
Internal Address:	BUILDING 170, 3RD FLOOR, MAIN QUAD, P.O. BOX 20386	
City:	STANFORD	
State/Country:	CALIFORNIA	
Postal Code:	94305-2038	

PROPERTY NUMBERS Total: 4

Property Type	Number
Application Number:	14861650
Application Number:	15377894
Application Number:	15377901
Application Number:	15377904

CORRESPONDENCE DATA

Fax Number: (650)327-3231

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.

Phone: 650-327-3400

Email: rabanal@bozpat.com

Correspondent Name: BOZICEVIC, FIELD & FRANCIS LLP Address Line 1: 201 REDWOOD SHORES PARKWAY

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Address Line 4: REDWOOD CITY, CALIFORNIA 94065

ATTORNEY DOCKET NUMBER:	STAN-1368DIV-DIVCON3
NAME OF SUBMITTER:	PAMELA J. SHERWOOD
SIGNATURE:	/Pamela J. Sherwood, Reg. No. 36,677/
DATE SIGNED:	10/27/2021

Total Attachments: 4

PATENT REEL: 057937 FRAME: 0194

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> PATENT REEL: 057937 FRAME: 0195

ASSIGNMENT OF APPLICATION

Atty Docket No. STAN-1368 Family

THIS ASSIGNMENT, by **Howard Hughes Medical Institute** (hereinafter referred to as the assignor), having its principal place of business at 4000 Jones Bridge Road, Chevy Chase, Maryland, 20815-6789, U.S., witnesseth:

WHEREAS, the said assignor has invented certain new and useful improvements in:

"Methods for Profiling and Quantitating Cell-Free RNA"

\boxtimes	for which an application was filed on November 6, 2013 as U.S. Application Serial No. 61/900,927;
	for which an application was filed on January 28, 2013 as U.S. Application Serial No. 13/752,131;
	for which an application was filed on September 22, 2015 as U.S. Application Serial No. 14/861,650;
	for which an application was filed on May 5, 2016 as U.S. Application Serial No. 15/034,746;
\boxtimes	for which an application was filed on December 13, 2016 as U.S. Application Serial No. 15/377,894;
	for which an application was filed on December 13, 2016 as U.S. Application Serial No. 15/377,901;
	for which an application was filed on December 13, 2016 as U.S. Application Serial No. 15/377,904; and
\boxtimes	for which an application was filed on November 6, 2014 as PCT International Application No. PCT/US2014/064355.

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 **Office of the General Counsel**, **Building 170**, 3rd **Floor**, **Main Quad**, **P.O. Box 20386**, **Stanford**, **California 94305-2038** (hereinafter referred to as the assignee) is desirous of acquiring said assignor's right, title and interest in and to said invention and said application, 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 assignor has sold, assigned, transferred and set over, and by these presents does sell, assign, transfer and set over, unto the assignee, its successors, legal representatives and assigns, all of said assignor's right title and interest in and to, as well as the right to claim priority of, the above-mentioned invention, application, 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 assignor, had this sale and assignment not been made

AND for the same consideration, said assignor hereby covenants and agrees 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 assignor has good and full right and lawful authority to sell and convey the same in the manner herein set forth.

AND for the same consideration, the said assignor hereby covenants and agrees to and with said assignee, its successors, legal representatives and assigns, that said assignor 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, 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 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 the said assignor hereby requests 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	10/25/2021	Name of Inventor	Stephen Guake

Stephen R. Quake
For himself and as an agent for the Howard Hughes
Medical Institute

PATENT REEL: 057937 FRAME: 0196

Hereby accepted on behalf of the assignee	
Int 20	
Signature	
October 26, 2021	Justin Zahrt
Date	Name (print)
Assistant Director of Intellectual Property at Title and Company	The Board of Trustees of the Leland Stanford Junior University
The and Company	
}	

PATENT REEL: 057937 FRAME: 0197

STANFORD UNIVERSITY • OFFICE OF TECHNOLOGY LICENSING

3000 EL CAMINO REAL * BUILDING FIVE SUITE 300 * PALO ALTO CA 94306-2100 (650) 723-0651 * FAX (650) 725-7295

KARIN H. IMMERGLUCK EXECUTIVE DIRECTOR OFFICE OF TECHNOLOGY LICENSING

TO:

Justin Zahrt

FROM:

Karin Immergluck Executive Director

DATE:

March 9, 2020

RE:

DELEGATION OF SIGNATURE AUTHORITY: Assistant Director, Intellectual

Property, Office of Technology Licensing

Pursuant to the Delegation of Signature Authority from the Vice Provost and Dean of Research to me as Executive Director by memorandum dated June 4, 2018, I hereby further delegate Signature Authority for transactions specified below to the Assistant Director, Intellectual Property. The Assistant Director, Intellectual Property, has the authority to sign documents or approve transactions relating to the filing, prosecution, registration and maintenance of intellectual property assets of Stanford University, including patent applications, patents, copyright works, and trademarks. This authority includes the powers to sign and certify official intellectual property-related government and patent office documents, including power of attorney documents and intellectual property assignment documents on behalf of the University as the assignee.

Even though the authority may exist to sign documents, custom, sound business practice and judgement, as well as the involvement of any novel legal issues or potentially significant legal exposure, should result in bringing matters of significant policy, budget, or legal impact to the attention of the Executive Director, and in the case of legal impact, to the Office of General Counsel, for approval. The authority granted here is not a substitute for compliance with existing University policies.

This Signature Authority may not be further delegated without the approval and further delegation from the Executive Director.

All delegations of Signature Authority must be filed with the Vice Provost and Dean of Research and the Office of General Counsel.

Karin H. Immergluck

Executive Director

Office of Technology Licensing

APPOINTMENT OF INVESTIGATOR AS AGENT

Appointment by the Howard Hughes Medical Institute ("HHMI") of Stephen R. Quake, PhD, an employee of HHMI, as its agent for the purpose of assigning certain rights to The Board of Trustees of the Leland Stanford Junior University ("Institution").

WHEREAS, HHMI and Institution collaborate in the active conduct of medical research pursuant to an Agreement between them dated as of August 31, 2002 (the "Agreement"):

WHEREAS, pursuant to the Agreement, HHMI has agreed to assign to Institution HHMI's rights with respect to inventions, discoveries, improvements, and other intellectual property, whether patentable or copyrightable (each a "Subject Property"), conceived or reduced to practice in the course of the research program conducted under the Agreement by employees of HHMI;

WHEREAS, research conducted pursuant to the Agreement by Stephen R. Quake, PhD while employed by HHMI at Institution has resulted in the invention of a certain Subject Property entitled "Profiling Maternal Plasma Cell-Free RNA by RNA-Sequencing and Its Application for Biomarker Identification in Preterm Pregnancies," which is the subject of a patent application entitled "Methods For Profiling Cell-Free RNA in Maternal Plasma" filed in the U.S. Patent and Trademark Office on January 27, 2012 with Serial Number 61/591,642 (the "Invention"), and the Invention is a Subject Property; and

WHEREAS, HHMI wishes Stephen R. Quake, PhD to act as its agent for the purpose of assigning to Institution the rights HHMI has in the Invention by reason of the research program conducted at Institution.

NOW THEREFORE, HHMI hereby appoints Stephen R. Quake, PhD as its agent for the purpose of assigning the rights HHMI has or may acquire in the Invention by reason of the research program conducted at Institution to Institution in accordance with and subject to the conditions of the Agreement.

Executed: April 5, 2012

HOWARD HUGHES MEDICAL INSTITUTE

By:

Jackj E. Dixon, PhD Vice President and Chief Scientific Officer

ATTESTED:

Cong A. Dheford Craig A Alexander

Vice President and General Counsel

S12-013 HHMI 05064

> **PATENT REEL: 057937 FRAME: 0199**

RECORDED: 10/27/2021