505409995 04/03/2019

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	06/25/2013

RECEIVING PARTY DATA

Name:	CASE WESTERN RESERVE UNIVERSITY	
Street Address:	10900 EUCLID AVENUE	
City:	CLEVELAND	
State/Country:	ОНЮ	
Postal Code:	44106-7219	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15413108

CORRESPONDENCE DATA

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ATTORNEY DOCKET NUMBER:	1848493-0002-020-107	
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DATE SIGNED:	04/03/2019	

Total Attachments: 1

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PATENT 505409995 REEL: 048786 FRAME: 0324

CONFIRMATION OF ASSIGNMENT

Confirmation of Assignment by Howard Hughes Medical Institute ("HHMI") to Case Western Reserve University ("Institution"), through Sanford D. Markowitz, MD, PhD, an investigator employed by HHMI.

WHEREAS, HHMI and Institution collaborate in the active conduct of medical research pursuant to an Agreement between them dated as of January 30, 1998 (the "Agreement");

WHEREAS, pursuant to the Agreement, HHMI has agreed to assign to Institution HHMI's rights with respect to intellectual property resulting from research by HHMI employees, alone or with others, at the Institution during the term of the Agreement, whether or not patentable or copyrightable, and whether funded in whole or in part by HHMI (each a "Subject Property");

WHEREAS, research conducted pursuant to the Agreement by Sanford D. Markowitz, MD, PhD while employed by HHMI at Institution has resulted in an invention entitled "Aberrant Vimentin DNA Methylation as a Biomarker of Upper Gastrointestinal Neoplasias" (the "Invention"), (including, without limitation, the patent application entitled "Methods and Compositions for Detecting Gastrointestinal and Other Cancers" filed in the United States Patent and Trademark Office on June 23, 2011 with Serial Number 13/167,670, issued as Patent Number 8,415,100 on April 9, 2013; "Methods and Compositions for Detecting Gastrointestinal and Other Cancers" filed in the United States Patent and Trademark Office on June 22, 2012 with Application Number PCT/US2012/043834; and "Methods and Compositions for Detecting Gastrointestinal and Other Cancers" filed in the United States Patent and Trademark Office on November 6, 2012 with Serial Number 13/670,155), and the Invention is a subject property;

WHEREAS, in connection with the pursuit of the patent application, it is desirable to confirm that HHMI's rights in the Invention by reason of the research program conducted at Institution have been validly assigned to Institution by and through the assignment of Dr. Markowitz dated September 30, 2011.

NOW, THEREFORE, HHMI hereby confirms that HHMI's rights in the Invention by reason of the research program conducted at Institution have been validly assigned to Institution by and through the assignment of Dr. Markowitz dated September 30, 2011.

Executed: June 25, 2013

HOWARD HUGHES MEDICAL INSTITUTE

Av.

Jack E. Dizon, PhD Vice President and Chief Scientific Officer

ATTESTED:

Heidi Henning

Vice President and General Counsel

Will Henry

2011-2097 HHMI 05010

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PATENT REEL: 048786 FRAME: 0325

RECORDED: 04/03/2019