

## PATENT ASSIGNMENT COVER SHEET

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EPAS ID: PAT4849089

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
ALEX BURGIN	01/03/2018
MONICA SCHENONE	01/08/2018
XIAOYUN WU	01/03/2018
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<b>State/Country:</b>	MASSACHUSETTS
<b>Postal Code:</b>	02142
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	15752130
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<b>ATTORNEY DOCKET NUMBER:</b>	167741.011205/US
<b>NAME OF SUBMITTER:</b>	MELISSA HUNTER-ENSOR, PH.D.
<b>SIGNATURE:</b>	/MELISSA HUNTER-ENSOR, PH.D./
<b>DATE SIGNED:</b>	03/02/2018
<b>Total Attachments: 6</b>	
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**PATENT**

**REEL: 045092 FRAME: 0632**

**ASSIGNMENT BY INVENTORS**

**THIS ASSIGNMENT**, made this 8<sup>th</sup> day of January, 2018, by Alex Burgin, Monica Schenone and Xiaoyun Wu, all c/o The Broad Institute, 415 Main Street, Cambridge, MA 02142 (hereinafter referred to as Assignor).

**WHEREAS**, Assignor(s) have invented certain new and useful improvements in "COMPOSITIONS AND METHODS FOR CANCER PATIENT STRATIFICATION", as set forth in an application already filed on August 12, 2016, as PCT Patent Application No.: PCT/US2016/046912; designating the United States which claims the benefit of United States Provisional Application No. 62/204,875; filed August 13, 2015;

**WHEREAS**, The Broad Institute, Inc., a Corporation, organized under and pursuant to the laws of Massachusetts having a principal place of business at 415 Main Street, Cambridge, MA 02142 hereinafter referred to as Assignee), is desirous of acquiring the entire right, title and interest in and to said inventions and said Application for Letters Patent of the United States, and in and to any Letters Patent of the United States to be obtained therefore and thereon.

**NOW, THEREFORE**, Assignor has sold, assigned, transferred and set over, and by these presents do sell, assign, transfer and set over, unto Assignees, their successors, legal representatives and assigns, the entire right, title and interest in and to the above-mentioned inventions and application for Letters Patent, and in and to any and all direct and indirect divisions, continuations and continuations-in-part of said application, and any and all Letters Patent in the United States and all foreign countries which may be granted therefor and thereon, and reissues, reexaminations and extensions of said Letters Patent, and all rights under the International Convention for the Protection of Industrial Property, the same to be held and enjoyed by Assignees, for their own use and benefit and the use and benefit of their successors, legal representatives and assigns, to the full end of the term or terms for which Letters Patent may be granted and/or extended,

as fully and entirely as the same would have been held and enjoyed by Assignors, had this sale and assignment not been made.

AND for the same consideration, Assignor hereby represents and warrants to Assignees, their successors, legal representatives and assigns, that, at the time of execution and delivery of these presents, except for any rights, titles and/or interests that have arisen to Assignees under law or that have already been transferred to Assignees, Assignors are the sole and lawful owners of the entire right, title and interest in and to the said inventions and application for Letters Patent above- mentioned, and that the same are unencumbered and that 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, Assignor hereby covenants and agrees to and with Assignees, their successors, legal representatives and assigns, that Assignor will 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 any Letters Patent and applications for Letters Patent for said inventions, without charge to Assignees, their successors, legal representatives and assigns, whenever counsel of Assignees, or counsel of their successors, legal representatives and assigns, shall advise: that any proceeding in connection with said inventions, or said Provisional application for Letters Patent, or any proceeding in connection with any Letters Patent or applications for Letters Patent for said inventions in any country, including but not limited to interference proceedings, is lawful and desirable; or, that any division, continuation or continuation-in-part of any application for Letters Patent, or any reissue, reexamination or extension of any Letters Patent, to be obtained thereon, is lawful and desirable.

AND Assignor hereby requests the Commissioner of Patent and Trademarks to issue said Letters Patent of the United States to Assignees, as Assignees of said inventions and the Letters Patent to be issued thereon, for the sole use and benefit of Assignees, their successors, legal representatives and assigns.

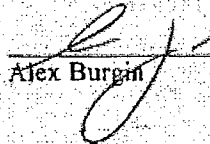
AND Assignor hereby grants the following individuals the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document:

GREENBERG TRAURIG LLP

All practitioners at Customer Number 35893

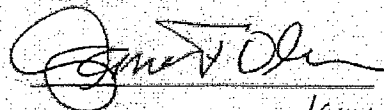
AND Assignor acknowledges an obligation of assignment of this invention to Assignees at the time the invention was made.

Date: January 3, 2018

  
Alex Burgin

IN TESTIMONY WHEREOF, the Assignor(s) have signed their names on the dates indicated.

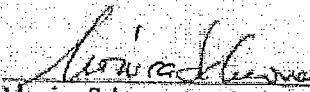
Date: January 3, 2018

Witness:   
James Olesen

Date: 1-3-18

Witness: Christine O'Day  
Christine O'Day

Date: Jan 8, 2012

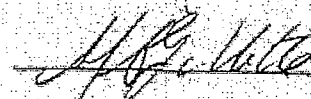
  
Monica Schenone

IN TESTIMONY WHEREOF, the Assignor(s) have signed their names on the dates indicated.


Date: 1/9/2018

Witness: 

Date: 1/8/2018

Witness: 

Date: 1/3/2018

  
Xiaoyun Wu

IN TESTIMONY WHEREOF, the Assignor(s) have signed their names on the dates indicated.

Date: 1/3/18

Witness: Christine O'Day  
Christine O'Day

Date: 1/3/18

Witness: Terence Ke  
Terence Ke