

PATENT ASSIGNMENT COVER SHEET

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EPAS ID: PAT4377336

SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	ASSIGNMENT	
CONVEYING PARTY DATA		
	Name	Execution Date
	DAVID E. ROOT	11/17/2016
RECEIVING PARTY DATA		
Name:	THE BROAD INSTITUTE INC.	
Street Address:	415 MAIN STREET	
City:	CAMBRIDGE	
State/Country:	MASSACHUSETTS	
Postal Code:	02142	
PROPERTY NUMBERS Total: 1		
	Property Type	Number
	Application Number:	15298895
CORRESPONDENCE DATA		
Fax Number:	(212)407-7799	
<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>		
Phone:	2124077700	
Email:	ipdocketny@vedderprice.com	
Correspondent Name:	THOMAS J. KOWALSKI	
Address Line 1:	1633 BROADWAY	
Address Line 2:	VEDDER PRICE P.C.	
Address Line 4:	NEW YORK, NEW YORK 10019	
ATTORNEY DOCKET NUMBER:	46783.01.2147	
NAME OF SUBMITTER:	JOSHUA HAMLET	
SIGNATURE:	/Joshua Hamlet/	
DATE SIGNED:	04/20/2017	
Total Attachments: 3		
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ASSIGNMENT

I, David E. Root, residing at: 17 Newell Rd., Brookline, MA 02446,
being the inventor(s) of certain improvements in the international application entitled:
**COMPOSITIONS AND METHODS FOR TARGETING CANCER-SPECIFIC
SEQUENCE VARIATIONS** for good and valuable consideration, the receipt and sufficiency of
which is hereby acknowledged, hereby assign unto **THE BROAD INSTITUTE INC.** having a
place of business at 415 Main Street, Cambridge, MA 02142, its successors and assigns (1) the
entire right, title and interest in all countries throughout the world in and to any and all of my
inventions and discoveries in my United States Provisional Application No. 62/246,988 filed
October 27, 2015 and a PCT International Application filed under the Patent Cooperation Treaty
in the PCT United States Receiving Office (RO/US) on October 20, 2016 identified as
International Application No. PCT/US2016/057915, and designating all PCT member
countries/states, as well as in any renewals, revivals, reissues, reexaminations, extensions,
continuations and divisions thereof, and any substitute applications therefore; (2) the full and
complete right to file patent applications in the name of **THE BROAD INSTITUTE INC.**, or
their designee's election, on the aforesaid inventions, discoveries and applications in all countries
of the world; (3) the entire right title and interest in and to any Letters Patent which may issue on
the aforesaid inventions, discoveries and applications in any country of the world and any
renewals, revivals, reissues, reexaminations and extensions thereof, and any patents of
confirmation, registration and importation of the same; and (4) the entire right, title and interest
in and to all Convention and Treaty Rights of all kinds thereon, including without limitation all
rights of priority in any country of the world, in and to the following application(s):

United States Provisional Application No. 62/246,988 filed October 27, 2015 and all
rights of priority in any country of the world deriving from the above-identified International
Application.

I hereby authorize and request the competent authorities to grant and to issue any and all
such Letters Patent in any country throughout the world to **THE BROAD INSTITUTE INC.** as
the assignee of the entire right, title and interest therein, as fully and entirely as the same would
have been held and enjoyed by me had this assignment, sale and transfer not been made.

I agree, at any time, upon the request of **THE BROAD INSTITUTE INC.** to execute
and to deliver to **THE BROAD INSTITUTE INC.** any additional applications for patents for

said inventions and discoveries, or any part or parts thereof, and any applications for patents of confirmation, registration and importation based on any Letters Patent issuing on said inventions, discoveries or applications, and divisions, continuations, renewals, revivals, reissues, reexaminations and extensions thereof.

I further agree, at any time, upon request of **THE BROAD INSTITUTE INC.**, to execute and to deliver to **THE BROAD INSTITUTE INC.**, such additional documents, if any, as are necessary or desirable to secure patent protection on said inventions, discoveries and applications throughout all countries of the world, and otherwise to do what is necessary to give full effect to and to perfect any and all rights of **THE BROAD INSTITUTE INC.**, under this Assignment, including the execution, delivery and procurement of any and all further documents evidencing this assignment, transfer and sale as may be necessary or desirable.

In testimony of which I have hereupon affixed my signature it is my intention that this Assignment instrument be effective, and all rights transferred herein shall be considered to have vested in **THE BROAD INSTITUTE INC.** as from the October 27, 2015 filing date of the first filed United States Provisional Application No. 62/246,988 from which priority is hereby claimed.

I, David E. Root, hereby authorize the attorneys of record, Vedder Price P.C., to insert the PCT Application Serial No. for the instant application entitled **COMPOSITIONS AND METHODS FOR TARGETING CANCER-SPECIFIC SEQUENCE VARIATIONS**, even if the PCT Application Serial No. and filing date are after the execution date of this document as this document is to be effective as to such a PCT Application.

11/17/2016
Date

David E. Root
David E. Root

Commonwealth of Massachusetts)

) SS

COUNTY OF Middlesex)

I, Carmelina M. Commiato, a Notary Public in and for the county and Commonwealth aforesaid, do hereby certify that David E. Root, personally known to me to be the same person whose name is subscribed to the foregoing instrument, appeared before me this day in person and acknowledged that he signed and delivered the said instrument as his free and voluntary act for the uses and purposes therein set forth.

Patent
46783.99.2147/BI-2015/120

IN WITNESS WHEREOF, I have hereunto set my hand and Notarial Seal, this 17th day of
November, 2016.

Carmelina M. Consisto
Notary Public

My Commission Expires:

SEAL

