505477268 05/15/2019

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5524072

NATURE OF CONVEYANCE: Corrective Assignment to correct the MISSING COMMA FROM	SUBMISSION TYPE:	CORRECTIVE ASSIGNMENT
APPLICANT'S NAME previously recorded on Reel 042675 Frame 02 Assignor(s) hereby confirms the ASSIGNMENT.		APPLICANT'S NAME previously recorded on Reel 042675 Frame 0230.

CONVEYING PARTY DATA

Name	Execution Date
JAMES E. DAHLMAN	06/01/2016

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:	15619735

CORRESPONDENCE DATA

Fax Number: (240)359-4879

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: 9122574864

Email: BROD.Assignments@JMI-IPLAW.COM

Correspondent Name: F. BRENT NIX, ESQ.

Address Line 1: PO BOX 691

Address Line 2: JOHNSON, MARCOU & ISAACS, LLC

Address Line 4: HOSCHTON, GEORGIA 30548

ATTORNEY DOCKET NUMBER:	BROD-3270US
NAME OF SUBMITTER:	COLLEEN F. SULLIVAN
SIGNATURE:	/COLLEEN F. SULLIVAN/
DATE SIGNED:	05/15/2019

Total Attachments: 3

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PATENT 505477268 REEL: 049185 FRAME: 0163

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4454815

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
JAMES E. DAHLMAN	06/01/2016

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:	15619735

CORRESPONDENCE DATA

Fax Number: (212)407-7799

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: 212 407 7700

Email: ipdocketny@vedderprice.com

VEDDER PRICE P.C. **Correspondent Name:**

Address Line 1: 1633 BROADWAY, 31ST FLOOR Address Line 4: NEW YORK, NEW YORK 10019

ATTORNEY DOCKET NUMBER:	47627.02.2004
NAME OF SUBMITTER:	BRENDY LYNN BELONY
SIGNATURE:	/Brendy Lynn Belony/
DATE SIGNED:	06/12/2017

Total Attachments: 2

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> **PATENT** REEL: 049185 FRAME: 0164

ASSIGNMENT

having a correspondence address of c/o 415 Main Street, Cambridge, MA 02142

I. James E. Dahlman, residing at: 86 Rice Street, Cambridge, MA 02140, USA, being the inventor of certain improvements in the international application entitled: ESCORTED AND FUNCTIONALIZED GUIDES FOR CRISPR-CAS SYSTEMS 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, USA, 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 Nos, 62/180,692 filed June 17, 2015; 62/091,456 filed December 12, 2014 and PCT International Application filed under the Patent Cooperation Treaty in the PCT United States Receiving Office (ROIUS) on December 11, 2015, identified as International Application No. PCT/US15/65396, 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 applications:

United States Provisional Application No. 62/180,692 filed June 17, 2015 and United States Provisional Application No. 62/091,456 filed December 12, 2014 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 NEWYORK#422668.1

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PATENT REEL: 049185 FRAME: 0165

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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 December 12, 2014 the filing date of the first filed United States Provisional Application No. 62/091,456 from which priority is

hereby claimed.
6/1//6

James . Dahlman

Witness 1

6/1/16

Date

Signaturé

Print Name

Witness 1

6/1/16

Date

Signature

ELISABETH SUTO. BARDOCT

Print Name

NEWYORK/#422668.1

RECORDED: 05/15/2019

PATENT REEL: 049185 FRAME: 0166