502836469 06/04/2014

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT2883065

		NEW ASSIGNMENT		
NATURE OF CONVEYAN	ICE:	ASSIGNMENT		
CONVEYING PARTY DA	АТА			
		Name	Execution Date	
J. Keith Joung			04/17/2014	
Jeffry D. Sander			04/18/2014	
Morgan Maeder			04/11/2014	
Yanfang Fu			04/17/2014	
RECEIVING PARTY DA	ТА			
Name:	THE GE	ENERAL HOSPITAL CORPORATIO)N	
Street Address:	55 FRU	IT STREET		
City:	возто	N		
State/Country:	MASSA	CHUSETTS		
Postal Code:	02114			
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Property Type		Number		
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Application Number: CORRESPONDENCE D Fax Number: Correspondence will be using a fax number, if p Phone: Email: Correspondent Name: Address Line 1: Address Line 2: Address Line 4: ATTORNEY DOCKET NU	ATA e sent to provided (; ; ; ;	(877)769-7945 <i>the e-mail address first; if that is</i> <i>; if that is unsuccessful, it will be</i> (617) 542-5070 apsi@fr.com JANICE K. DEYOUNG FISH & RICHARDSON P.C. P.O.BOX 1022 MINNEAPOLIS, MINNESOTA 5544	sent via US Mail.	
Application Number: CORRESPONDENCE D Fax Number: Correspondence will be using a fax number, if p Phone: Email: Correspondent Name: Address Line 1: Address Line 2: Address Line 4:	ATA e sent to provided (; ; ; ;	14213723 (877)769-7945 <i>the e-mail address first; if that is</i> <i>; if that is unsuccessful, it will be</i> (617) 542-5070 apsi@fr.com JANICE K. DEYOUNG FISH & RICHARDSON P.C. P.O.BOX 1022 MINNEAPOLIS, MINNESOTA 5544 00786-0894001	sent via US Mail.	
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ASSIGNMENT

For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, we, J. Keith Joung, of Winchester, Massachusetts; Jeffry D. Sander, of Ames, Iowa; Morgan Maeder, of Brookline, Massachusetts; and Yanfang Fu, of Malden, Massachusetts, hereby assign to: THE GENERAL HOSPITAL CORPORATION, a corporation of Massachusetts, having a place of business 55 Fruit Street, Boston, Massachusetts 02114; and its successors and assigns (collectively hereinafter called "the Assignee"), the entire right, title, and interest throughout the world in the inventions and improvements which are the subject of and described and/or claimed in a utility application for United States Patent, entitled "USING TRUNCATED GUIDE RNAS (TRU-GRNAS) TO INCREASE SPECIFICITY FOR RNA-GUIDED GENOME EDITING," filed on March 14, 2014, and assigned U.S. Serial Number 14/213,723; this assignment including said application, any and all United States and foreign patents, utility patents and models, continuations, continuations-in-part, divisionals, reexaminations, reissues, and design registrations granted for any of said inventions or improvements, and the right to claim priority based on the filing date of said application under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other treaties of like purposes; and this assignment also including, without limitation, any claims (known or unknown, suspected or unsuspected) of any nature that we have or may have against any party for infringement of any of the patents and patent applications listed herein, and the right to sue for past infringement and to recover and retain damages and profits in respect thereof; and

we authorize the Assignee to apply in all countries in our name or in its own name for patents, utility models, design registrations, and like rights of exclusion and for inventors' certificates for said inventions and improvements; and

we hereby covenant and agree that we will communicate to the Assignee or nominees all facts known to us pertaining to said inventions and improvements, and we agree for ourselves and our respective heirs, legal representatives, and assigns, without further compensation to perform such lawful acts and to sign such further applications, assignments, reissues, Preliminary Statements, and other lawful documents, testify in all legal proceedings, make all rightful oaths and declarations, and in general perform or cause to be performed all lawful acts necessary or proper to aid the Assignee or nominees in obtaining, maintaining, and enforcing all lawful patent protection for the inventions and improvements in the United States and in foreign countries; and

we hereby covenant that we have the full right to convey the entire right, title, and interest herein assigned and that we have not executed and will not execute any agreement in conflict herewith.

Page 1 of 5

DATE: 4/17/14

J. KEITH JOUNG

Þ	WITNESS WHEREOF, I hereto) set my hand and seal at χ	ma <u>es Ber</u>	ered Hospital
this	1 day of April	, 20 <u>7 y</u>		
State of	<u></u> ;			
County o	N <u>SUFFOLK</u> : ss.		÷.	
B	efore me this <u>/7 ⁷²</u> da	y of <u>April</u>	, 20 <u>_/ / //</u>	_, personally
	J. <u>KE17H</u> JAING regoing Assignment and ackno			
	for the purposes therein cont			
		Notary Public /	64.0°	
	A Children and Chi	Notary Public / My Commission Expi	res: 8-1-2-0	14
	No conversion of the second se	North Contraction Not		

Page 2 of 5

DATE: 4/18/2014	JEFFRY D. SANDER
IN WITNESS WHEREOF, I hereto this <u>19</u> day of <u>April</u>	set my hand and seal at $2^{-5}4\rho_{M}$, $20/4$
State of \underline{fowa} ; County of \underline{folk} ; ss. Before me this \underline{fgl} day appeared \underline{folk} ; \underline{fgl} day to the foregoing Assignment and acknow and deed for the purposes therein contains	of $Apt: 1$, $20 - 14$, personally cnown to me to be the person whose name is subscribed wledged that she/he executed the same as her/his free act ined. $Apt. Ellis Apr. Apr. Apr. Apr. Apr. Apr. Apr. Apr.$
	Spencer Ellis Bagby Commission Number: 778470 My Commission Expires: 01/15/2016

DATE:		N MAEDER	
IN WITNESS WHER	EOF, I hereto set my hand an	d seal at	
this day of _	, 20,		
State of	:		
County of	: ss. :		
Before me this appeared to the foregoing Assignme and deed for the purposes	day of known to me to ent and acknowledged that sh therein contained.	, 20, 20 be the person whose na he/he executed the same	, personally me is subscribed as her/his free act
	Notary Publ	ic	<u> </u>

Aun DATE: 4/17/2014 IN WITNESS WHEREOF, I hereto set my hand and seal at Mars Deveral Harpital this 1773 day of april .2014 State of <u>MA</u>: County of <u>SUFFOLM</u>: : ss. Before me this 177 day of 4277, 20_{14} , personally appeared 4AHFANGFU known to me to be the person whose name is subscribed , personally to the foregoing Assignment and acknowledged that she/he executed the same as her/his free act and deed for the purposes therein contained. d. <u>Stracky Q. Berjord</u> Notary Public My Commission Expires: 8-1-2-014 AND ARY PUE

Page 5 of 5

ASSIGNMENT

For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, we, J. Keith Joung, of Winchester, Massachusetts; Jeffry D. Sander, of Ames, Iowa; Morgan Maeder, of Brookline, Massachusetts; and Yanfang Fu, of Malden, Massachusetts, hereby assign to: THE GENERAL HOSPITAL CORPORATION, a corporation of Massachusetts, having a place of business 55 Fruit Street, Boston, Massachusetts 02114; and its successors and assigns (collectively hereinafter called "the Assignee"), the entire right, title, and interest throughout the world in the inventions and improvements which are the subject of and described and/or claimed in a utility application for United States Patent, entitled "USING TRUNCATED GUIDE RNAS (TRU-GRNAS) TO INCREASE SPECIFICITY FOR RNA-GUIDED GENOME EDITING," filed on March 14, 2014, and assigned U.S. Serial Number 14/213,723; this assignment including said application, any and all United States and foreign patents, utility patents and models, continuations, continuations-in-part, divisionals, reexaminations, reissues, and design registrations granted for any of said inventions or improvements, and the right to claim priority based on the filing date of said application under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other treaties of like purposes; and this assignment also including, without limitation, any claims (known or unknown, suspected or unsuspected) of any nature that we have or may have against any party for infringement of any of the patents and patent applications listed herein, and the right to sue for past infringement and to recover and retain damages and profits in respect thereof; and

we authorize the Assignee to apply in all countries in our name or in its own name for patents, utility models, design registrations, and like rights of exclusion and for inventors' certificates for said inventions and improvements; and

we hereby covenant and agree that we will communicate to the Assignee or nominees all facts known to us pertaining to said inventions and improvements, and we agree for ourselves and our respective heirs, legal representatives, and assigns, without further compensation to perform such lawful acts and to sign such further applications, assignments, reissues, Preliminary Statements, and other lawful documents, testify in all legal proceedings, make all rightful oaths and declarations, and in general perform or cause to be performed all lawful acts necessary or proper to aid the Assignee or nominees in obtaining, maintaining, and enforcing all lawful patent protection for the inventions and improvements in the United States and in foreign countries; and

we hereby covenant that we have the full right to convey the entire right, title, and interest herein assigned and that we have not executed and will not execute any agreement in conflict herewith.

Page 1 of 5

DATE:			
	J. KI	EITH JOUNG	
IN WITNESS WHI	REOF Thereto set my hav	nd and seal at	
	,		
State of			
County of	: 88 <i>.</i> :		
Before me this	day of	, 20	, personally
appeared	known to r	ne to be the person whose na	me is subscribed
and deed for the purpose		hat she/he executed the same	as her/his free act
	Notary	Public	

DATE:				
		JEFFRY D. S.	ANDER	
IN WITNESS V	WHEREOF, I hereto set	t my hand and sea	ıl at	
this day	' of	, 20		
State of				
County of	: SS. 			
Before me thi	is day of	own to me to be t	, 20, 20	, personally
to the foregoing Assi	gnment and acknowle poses therein containe	edged that she/he	executed the same a	as her/his free act
		Notary Public		

Notary Public

DATE: 4/11/14

MØRGAN MAEDER

IN WITNESS WHEREOF, I hereto set my hand and seal at Editas Medicine. this 1 day of $A \rho ci$, 20

State of \underline{MA} : County of \underline{MA} : ss.

Before me this $\underline{\square}$ day of \underline{Apci} , 20, $\underline{\square}$, personally appeared \underline{Mcsqcn} , \underline{Mcs} , \underline{Asc} known to me to be the person whose name is subscribed to the foregoing Assignment and acknowledged that she/he executed the same as her/his free act to the foregoing Assignment and assume and deed for the purposes therein contained. Notary Public Jewish D. Franklich 2005-202

My Commission Expires: 2 -5 - 2021



Page 4 of 5

DATE:			
	YANFAI	NG FU	
IN WITNESS WHE	REOF, I hereto set my hand a	nd seal at	
this day of _	, 20		

State of	:		
	: ss.		
County of	:		
Before me this	day of	, 20	, personally
appeared	known to me t	o be the person whose na	me is subscribed
	ent and acknowledged that s		
a a star frank frank			

Notary Public