

## PATENT ASSIGNMENT COVER SHEET

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 Stylesheet Version v1.2

EPAS ID: PAT4982415

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
TIM TOWNES	02/16/2018
LEI DING	02/15/2018
CHIA-WEI CHANG	02/02/2018
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	THE UAB RESEARCH FOUNDATION
<b>Street Address:</b>	1720 2ND AVENUE SOUTH
<b>Internal Address:</b>	ADMINISTRATION BUILDING 770
<b>City:</b>	BIRMINGHAM
<b>State/Country:</b>	ALABAMA
<b>Postal Code:</b>	35294-0107
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	15737132
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(202)585-0046
<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>	
<b>Phone:</b>	404-815-6500
<b>Email:</b>	nito@kilpatricktownsend.com
<b>Correspondent Name:</b>	KILPATRICK TOWNSEND & STOCKTON LLP
<b>Address Line 1:</b>	1100 PEACHTREE STREET
<b>Address Line 2:</b>	SUITE 2800
<b>Address Line 4:</b>	ATLANTA, GEORGIA 30309
<b>ATTORNEY DOCKET NUMBER:</b>	035979-1071098 (177US1)
<b>NAME OF SUBMITTER:</b>	LIZETTE M FERNANDEZ
<b>SIGNATURE:</b>	/Lizette M. Fernandez/
<b>DATE SIGNED:</b>	05/30/2018
<b>Total Attachments: 5</b>	
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**ASSIGNMENT**  
(Patent Application)

We, Tim Townes of 4687 Bridgewater Rd., Birmingham, AL, 35243; Lei Ding of 1133 Winward Lane, Vestavia, AL 35216; and Chia-Wei Chang of 805 Castlemaine Ct., Birmingham, AL 35226, the undersigned, have invented certain inventions and improvements disclosed in a utility patent application entitled

“CRISPR/CAS9 COMPLEX FOR GENOMIC EDITING,”

filed with the U.S. Patent & Trademark Office on June 17, 2016, and assigned U.S. application no. 15/737,132, which is a US National Phase Application of International Application No. PCT/US2016/038161, filed June 17, 2016, which claims priority to U.S. Provisional Application Nos. 62/181,138 filed June 17, 2015 and 62/266,316 filed December 11, 2015.

For one dollar (\$1.00) and other good and valuable consideration, the receipt and sufficiency of which we acknowledge, we:

1. Agree to assign, transfer, convey, and sell, hereby assign, transfer, convey, and sell and have assigned, transferred, conveyed, and sold to The UAB Research Foundation, a corporation of the State of Alabama having a principal place of business at 1720 2nd Avenue South, Administration Building 770, Birmingham, Alabama 35294-0107 (“Assignee”), the entire right, title, and interest in and to:
  - (a) all intellectual property (including, without limitation, any innovation, information, invention, discovery, product, process, work or design) disclosed, embodied, shown, or claimed in the above-referenced patent application, implicitly or explicitly;
  - (b) the above-referenced patent application, and all applications based in whole or in part upon the above-referenced patent application, including, without limitation, all applications that are a provisional, non-provisional, design, divisional, continuation, continuation-in-part, registration, utility model, industrial design, reissue, renewal, substitute, extension, reexamination, post-grant review, inter partes review, supplemental examination or non-U.S. patent application or application for other rights based in whole or in part on the above-referenced patent application;
  - (c) the right to claim priority to the above-referenced patent application, and any and all applications referenced in subsection (b); and
  - (d) all patents (including, without limitation, all U.S. and non-U.S. patents, registrations, utility models, industrial designs, design patents, counterparts, continuations, continuations-in-part, divisionals, reissues, renewals, substitutes, extensions, reexaminations, post-grant reviews, inter partes reviews and supplemental examinations) that are granted or issued upon, or that claim priority to, any and all applications described in (b) of this paragraph or that disclose or

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claim intellectual property described in (a) of this paragraph, in whole or in part;  
and

(e) all claims for damages by reason of past infringement of any rights under the applications or patents described in (a), (b) or (c) of this paragraph (including provisional rights to reasonable royalties pursuant to 35 U.S.C. §154(d)) and the right to sue for and collect such damages and royalties for Assignee's own use.

2. Authorize and request the U.S. Patent and Trademark Office or any other U.S. or non-U.S. agency to issue to the Assignee any and all patent(s), or other rights or documents, resulting from the intellectual property, patent application(s) and patents described in paragraph 1 of this Assignment.
3. Agree to sign all papers and documents, including without limitation, applications, declarations, oaths and petitions, and, at the Assignee's expense, perform any other acts that are necessary in connection with prosecution of patent application(s) or intellectual property described in paragraph 1 of this Assignment and the enforcement of patent(s) or other rights resulting from such patent application(s) or intellectual property.
4. Agree that the terms, covenants, and conditions of this Assignment shall inure to the benefit of the Assignee, its successors, assigns and other legal representative, and shall be binding upon us, as well as our heirs, legal representatives, and assigns.
5. Promise and affirm that we have not entered, and will not enter, into any assignment, contract, or understanding that conflicts with this Assignment.
6. Authorize Kilpatrick Townsend & Stockton to insert above the application number and filing date of the above-described patent application when known.

Signed on the dates indicated beside our signatures.

ASSIGNMENT

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Signature: \_\_\_\_\_

**Tim Townes**

Date: \_\_\_\_\_

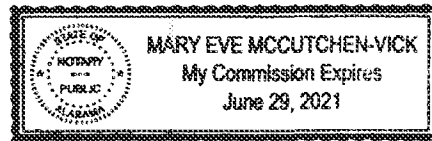
02/16/2018

STATE OF Alabama

Before me, a Notary Public in and for the State of Alabama on this 16<sup>th</sup> day of February 2018, personally appeared **Tim Townes**, who being duly sworn, signed and acknowledged the foregoing Assignment as his/her free act and deed.

(Seal)

Mary Eve McCutchen-Vick  
NOTARY PUBLIC  
My Commission Expires: 06.29.2021



**PATENT**

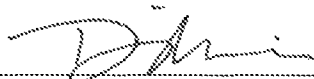
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ASSIGNMENT

U.S. Serial No. 15/737,132

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Signature: 

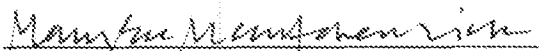
**Lei Ding**

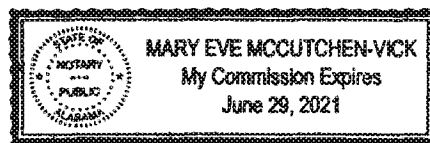
Date: 2/15/18

STATE OF Alabama

Before me, a Notary Public in and for the State of Alabama on this 15<sup>th</sup> day of February 20 18, personally appeared **Lei Ding**, who being duly sworn, signed and acknowledged the foregoing Assignment as his/her free act and deed.

(Seal)

  
NOTARY PUBLIC  
My Commission Expires: 06/29/2021



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Page 5 of 5

Signature: \_\_\_\_\_

**Chia-Wei Chang**

Date: \_\_\_\_\_

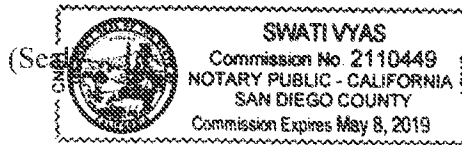
05/02/2018

STATE OF ~~Alabama~~

*California*

Before me, a Notary Public in and for the State of ~~Alabama~~ *California* on this 2 day of February

2018, personally appeared **Chia-Wei Chang**, who being duly sworn, signed and acknowledged the foregoing Assignment as his/~~her~~ free act and deed.



*Swati Vyas*  
\_\_\_\_\_  
NOTARY PUBLIC

My Commission Expires:

*May 8 2019*

*5 Pages Attorney Docket No.  
035979-1071098 (177US1)  
Patent Application vs serial No. 15/737,132  
CADL # Y4516022*