

<b>PATENT ASSIGNMENT COVER SHEET</b>
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Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT4186814

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
ROCHE MOLECULAR SYSTEMS, INC.	11/28/2016
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	454 LIFE SCIENCES CORPORATION
<b>Street Address:</b>	20 COMMERCIAL STREET
<b>City:</b>	BRANFORD
<b>State/Country:</b>	CONNECTICUT
<b>Postal Code:</b>	06405
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	14466063
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(202)842-7899
<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>	6179372383
<b>Email:</b>	lromano@cooley.com
<b>Correspondent Name:</b>	CHRISTINA K. STOCK
<b>Address Line 1:</b>	COOLEY LLP
<b>Address Line 2:</b>	1299 PENNSYLVANIA AVENUE NW, SUITE 700
<b>Address Line 4:</b>	WASHINGTON, D.C. 20004
<b>ATTORNEY DOCKET NUMBER:</b>	454L-058/001US
<b>NAME OF SUBMITTER:</b>	CHRISTINA K. STOCK
<b>SIGNATURE:</b>	/Christina K. Stock/
<b>DATE SIGNED:</b>	12/15/2016
<b>Total Attachments: 3</b>	
source=454L-058001US - Assignment from RMSI to 454 Life Sciences Corp#page1.tif	
source=454L-058001US - Assignment from RMSI to 454 Life Sciences Corp#page2.tif	
source=454L-058001US - Assignment from RMSI to 454 Life Sciences Corp#page3.tif	

**ASSIGNMENT AGREEMENT**

**Roche Molecular Systems, Inc.** ("ASSIGNOR") a corporation duly organized under the laws of the State of Delaware, and having its principal place of business at 4300 Hacienda Drive, Pleasanton, California 94588, United States of America

acknowledges the previous transfer to / hereby assigns to

**454 Life Sciences Corporation** ("ASSIGNEE") a corporation duly organized under the laws of Delaware and having its principal place of business at 20 Commercial Street, Branford, Connecticut, 06405, United States of America,

for good and valuable consideration paid to ASSIGNOR by ASSIGNEE, the receipt and sufficiency of which is hereby acknowledged, of all right, title, and interest in, to, and deriving from the invention(s) disclosed in the patent application(s) set forth below and its possessions by operation of law, contract, or otherwise, and any Letters Patent which may hereafter be granted on the same including any application claiming priority, divisions, renewals, continuations in whole or in part, substitutions, conversions, reissues, reexaminations, prolongations or extensions thereof.

As far as the right, title, and interest of ASSIGNOR in, to, and deriving from the invention(s) disclosed in the patent application(s) set forth below may not have been transferred, for good and valuable consideration paid to ASSIGNOR by ASSIGNEE, the receipt and sufficiency of which is hereby acknowledged, ASSIGNOR hereby assigns, sells and transfers to ASSIGNEE, and to ASSIGNEE'S successors and assigns, all of ASSIGNOR'S right, title and interest in, to, and deriving from the invention(s) described in the patent application(s) listed below, including any divisions, renewals, continuations in whole or in part, substitutions, conversions, reissues, reexaminations, prolongations or extensions thereof, or other patent applications claiming the benefit of the filing date of the following patent application(s):

Case No.	Country	Filing Date	Serial No.
P31722-US1	United States	22 August 2014	14/466,063

entitled

**SYSTEM AND METHOD FOR NUCLEIC ACID AMPLIFICATION**

ASSIGNEE, by virtue of this Assignment, shall have the right to file and own patent applications that claim priority to and are based in whole or in part on the patent application(s) cited above and to own Letters Patents that issue thereon. Accordingly, ASSIGNOR hereby authorizes and requests to issue any Letters Patent which may issue for such patent applications, including any divisions, renewals, continuations in whole or in part, substitutions, conversions, reissues, reexaminations, prolongations or extensions thereof, to ASSIGNEE, its successors and assigns.

ASSIGNOR does hereby covenant and agree with ASSIGNEE, its successors and assigns, that ASSIGNOR will not execute any writing or do any act conflicting with this assignment, and ASSIGNOR further agrees that he will, without charge to said ASSIGNEE, but at ASSIGNEE'S expense, cooperate with ASSIGNEE in the prosecution of said Letters Patent and/or applications, execute, verify, acknowledge and deliver all such further papers, including applications for Letters Patent and for the reissue thereof, and instruments of assignment and transfer thereof, and will perform such other acts as ASSIGNEE lawfully may request, to obtain or maintain Letters Patent for said invention and improvement in any and all countries, and to vest title thereto in said ASSIGNEE, or ASSIGNEE'S successors and assigns.

ASSIGNOR

Roche Molecular Systems, Inc.

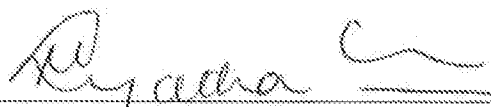
Pleasanton, CA 28 / Nov / 2016  
Place, Date

  
Charles M. Doyle, Senior Director, Patents

ASSIGNEE

454 Life Sciences Corporation

Pleasanton, CA Nov 28, 2016  
Place, Date

  
Signatures Suja Subramaniam  
Senior Director, Patents

ACKNOWLEDGMENT

United States of America

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached and not the truthfulness, accuracy or validity of that document.

State of California )

) ss.

County of Alameda )

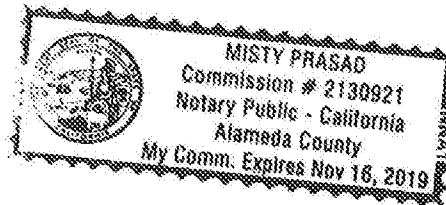
On Nov 28, 2016, before me, Misty Prasad, Notary Public for the State of California, personally appeared CHARLES M. DOYLE, who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

*Misty Prasad*

(Seal)



Notary Public