

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT4354337

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
JEONG-YEOL YOON	11/18/2015
DUSTIN HARSHMAN	11/16/2015
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	ARIZONA BOARD OF REGENTS ON BEHALF OF THE UNIVERSITY OF ARIZONA
<b>Street Address:</b>	P.O. BOX 210300A
<b>Internal Address:</b>	TECH LAUNCH ARIZONA, UNIVERSITY SERVICES ANNEX, 4TH FLOOR
<b>City:</b>	TUCSON
<b>State/Country:</b>	ARIZONA
<b>Postal Code:</b>	85721
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	15517028
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(503)595-5301
<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>	503-595-5300
<b>Email:</b>	deborah.martin@klarquist.com
<b>Correspondent Name:</b>	S. RYBAK, PH.D./KLARQUIST SPARKMAN, LLP
<b>Address Line 1:</b>	121 SW SALMON STREET
<b>Address Line 2:</b>	ONE WORLD TRADE CENTER, SUITE 1600
<b>Address Line 4:</b>	PORTLAND, OREGON 97204-2988
<b>ATTORNEY DOCKET NUMBER:</b>	8085-93917-03
<b>NAME OF SUBMITTER:</b>	SHEREE LYNN RYBAK, PH.D.
<b>SIGNATURE:</b>	/Sheree Lynn Rybak/
<b>DATE SIGNED:</b>	04/05/2017
<b>Total Attachments: 6</b>	
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**PATENT**

**REEL: 041859 FRAME: 0248**

## ASSIGNMENT OF PATENT RIGHTS

Assignors: Jeong-Yeol Yoon  
Dustin Harshman

Assignee: The Arizona Board of Regents on Behalf of the University of Arizona, a body corporate duly formed in accordance with Title 15 of the Arizona Revised Statutes, with an address as follows: The University of Arizona, Tech Transfer Arizona, University Services Annex, 4<sup>th</sup> Floor, P.O. Box 210300A, Tucson, AZ 85721 (physically located at The University of Arizona, Tech Transfer Arizona, 220 West Sixth Street, 4<sup>th</sup> Floor, Tucson, AZ 85701).

For good and valuable consideration, the receipt of which is hereby acknowledged, Assignor hereby sells, assigns, transfers, and conveys unto Assignee all right, title, and interest that exist today and may exist in the future in and to any and all of the following (collectively, the "*Patent Rights*");

(a) the provisional patent applications, patent applications and patents listed in the table below (the "*Patents*");

<u>UA Ref. No.</u>	<u>Patent or Application No.</u>	<u>Country</u>	<u>Filing Date</u>	<u>Title of Patent and First Named Inventor</u>
UA15-071	PCT/US2015/057081	US	10/23/15	Interfacial Effects Enable Droplet Actuation, Inhibition Relief, and Early Sensing of Polymerase Chain Reaction; - Jeong-Yeol Yoon

(b) all patents and patent applications (i) to which any of the Patents directly or indirectly claims priority, (ii) for which any of the Patents directly or indirectly forms a basis for priority, and/or (iii) that were co-owned applications that directly or indirectly incorporate by reference the Patents;

(c) all reissues, reexaminations, extensions, continuations, continuations in part, continuing prosecution applications, requests for continuing examinations, divisions, registrations of any item in any of the foregoing categories (a) and (b);

(d) all foreign patents, patent applications, and counterparts relating to any item in any of the foregoing categories (a) through (c), including, without limitation, certificates of invention, utility models, industrial design protection, design patent protection, and other governmental grants or issuances, including, without limitation, all rights under the Paris Convention for the Protection of Industrial Property, the International Patent Cooperation Treaty, or any other convention, treaty, agreement, or understanding; and

(e) all inventions, invention disclosures, and discoveries described in any item in any of the foregoing categories and all other rights arising out of such inventions, invention disclosures, and discoveries, and all causes of action (whether known or unknown or whether currently pending, filed, or otherwise) and other enforcement rights under, or on account of, any of the Patents and/or any item in any of the foregoing categories, including, for past, current, and future infringement.

Assignor confirms that, at the time the invention was made, Assignor was obligated to assign, and did assign, the invention to Assignee. Assignor represents, warrants and covenants that Assignor has the full power and authority, and has obtained all third party consents, approvals and/or other authorizations required to enter into this Agreement and to carry out its obligations hereunder, including the assignment of the Patent Rights to Assignee.

Assignor hereby authorizes the respective patent office or governmental agency in each jurisdiction to issue any and all patents, certificates of invention, utility models or other governmental grants or issuances that may be granted upon any of the Patent Rights in the name of Assignee, as the assignee to the entire interest therein.

Assignor will, at the reasonable request of Assignee and without demanding any further consideration therefor, do all things necessary, proper, or advisable, including without limitation, the execution, acknowledgment, and recordation of specific assignments, oaths, declarations, and other documents on a country-by-country basis, to assist Assignee in obtaining, perfecting, sustaining, and/or enforcing the Patent Rights. Assignor has not executed, and will not execute, any agreement in conflict herewith.

The undersigned hereby grant(s) the firm of Klarquist Sparkman, the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

The terms and conditions of this Assignment of Patent Rights will inure to the benefit of Assignee, its successors, assigns, and other legal representatives and will be binding upon Assignor, its successors, assigns, and other legal representatives.

IN WITNESS WHEREOF this Assignment of Patent Rights is executed on the dates below.

ASSIGNOR:

By:

Jeong-Yeol Yoon

Date:

11/18/15

Printed Name:

Jeong-Yeol Yoon

STATE OF Arizona

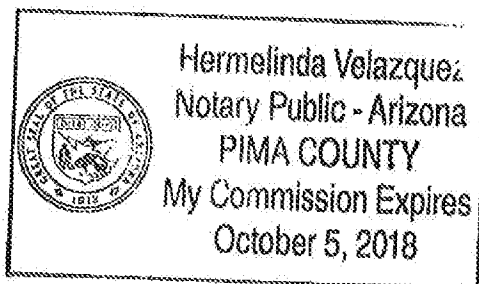
COUNTY OF Pima

)  
)  
)

ss.

On this 18<sup>th</sup> day of November, in the year of 2015, before me, the undersigned Notary Public or Witness, personally appeared the above-named ASSIGNOR (Jeong-Yeol Yoon), known to me (or proven to me on the basis of satisfactory evidence) to be the persons whose names are subscribed to the within instrument, and acknowledged that they executed the same.

SEAL



[Signature]  
NOTARY PUBLIC or WITNESS

MY COMMISSION EXPIRES:

10/5/2018

ASSIGNOR:

By: \_\_\_\_\_

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

Printed Name: Dustin Harshman

STATE OF \_\_\_\_\_ )  
COUNTY OF \_\_\_\_\_ ) ss.

On this \_\_\_\_\_ day of \_\_\_\_\_, in the year of \_\_\_\_\_, before me, the undersigned Notary Public or Witness, personally appeared the above-named ASSIGNOR (Dustin Harshman), known to me (or proven to me on the basis of satisfactory evidence) to be the persons whose names are subscribed to the within instrument, and acknowledged that they executed the same.

\_\_\_\_\_  
NOTARY PUBLIC or WITNESS  
MY COMMISSION EXPIRES: \_\_\_\_\_

SEAL

## ASSIGNMENT OF PATENT RIGHTS

**Assignors:** Jeong-Yeol Yoon  
Dustin Harshman

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<u>UA Ref. No.</u>	<u>Patent or Application No.</u>	<u>Country</u>	<u>Filing Date</u>	<u>Title of Patent and First Named Inventor</u>
UA15-071	PCT/US2015/057081	US	10/23/15	Interfacial Effects Enable Droplet Actuation, Inhibition Relief, and Early Sensing of Polymerase Chain Reaction; - Jeong-Yeol Yoon

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(d) all foreign patents, patent applications, and counterparts relating to any item in any of the foregoing categories (a) through (c), including, without limitation, certificates of invention, utility models, industrial design protection, design patent protection, and other governmental grants or issuances, including, without limitation, all rights under the Paris Convention for the Protection of Industrial Property, the International Patent Cooperation Treaty, or any other convention, treaty, agreement, or understanding; and

(e) all inventions, invention disclosures, and discoveries described in any item in any of the foregoing categories and all other rights arising out of such inventions, invention disclosures, and discoveries, and all causes of action (whether known or unknown or whether currently pending, filed, or otherwise) and other enforcement rights under, or on account of, any of the Patents and/or any item in any of the foregoing categories, including, for past, current, and future infringement.

Assignor confirms that, at the time the invention was made, Assignor was obligated to assign, and did assign, the invention to Assignee. Assignor represents, warrants and covenants that Assignor has the full power and authority, and has obtained all third party consents, approvals and/or other authorizations required to enter into this Agreement and to carry out its obligations hereunder, including the assignment of the Patent Rights to Assignee.

Assignor will, at the reasonable request of Assignee and without demanding any further consideration therefor, do all things necessary, proper, or advisable, including without limitation, the execution, acknowledgment, and recordation of specific assignments, oaths, declarations, and other documents on a country-by-country basis, to assist Assignee in obtaining, perfecting, sustaining, and/or enforcing the Patent Rights. Assignor has not executed, and will not execute, any agreement in conflict herewith.

The terms and conditions of this Assignment of Patent Rights will inure to the benefit of Assignee, its successors, assigns, and other legal representatives and will be binding upon Assignor, its successors, assigns, and other legal representatives.

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

Printed Name: Jeong-Yeol Yoon

STATE OF )  
 ) ss.  
COUNTY OF )

NOTARY PUBLIC or WITNESS  
MY COMMISSION EXPIRES: \_\_\_\_\_

**PATENT**  
**REEL: 041859 FRAME: 0253**

ASSIGNOR:

By:

*Dustin Harshman*

Date: 16 Nov 2015

Printed Name: Dustin Harshman

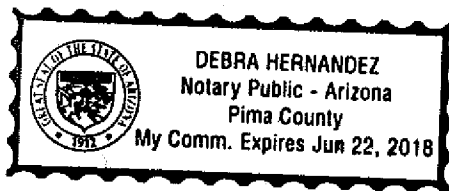
STATE OF Arizona )

COUNTY OF Pima )

ss.

On this 16<sup>th</sup> day of November, in the year of 2015, before me, the undersigned Notary Public or Witness, personally appeared the above-named ASSIGNOR (Dustin Harshman), known to me (or proven to me on the basis of satisfactory evidence) to be the persons whose names are subscribed to the within instrument, and acknowledged that they executed the same.

SEAL



*Debra Hernandez*  
NOTARY PUBLIC or WITNESS  
MY COMMISSION EXPIRES: June 22, 2018