

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT4972683

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
DAEYEON LEE	04/11/2017
FRANCESCO ANGILE	12/14/2016
KEVIN VARGO	12/12/2016
DANIEL A. HAMMER	09/27/2017
CHANDRA M. SEHGAL	03/17/2017
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	THE TRUSTEES OF THE UNIVERSITY OF PENNSYLVANIA
<b>Street Address:</b>	3160 CHESTNUT STREET
<b>Internal Address:</b>	SUITE 200
<b>City:</b>	PHILADELPHIA
<b>State/Country:</b>	PENNSYLVANIA
<b>Postal Code:</b>	19104
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
Application Number:	15320177
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(610)407-0701
<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>	6104070700
<b>Email:</b>	KSPINA@RATNERPRESTIA.COM
<b>Correspondent Name:</b>	ALYSSA R.M. PUGH, REG. NO. 75,253
<b>Address Line 1:</b>	2200 RENAISSANCE BLVD.
<b>Address Line 2:</b>	SUITE 350
<b>Address Line 4:</b>	KING OF PRUSSIA, PENNSYLVANIA 19406
<b>ATTORNEY DOCKET NUMBER:</b>	UOP-510US
<b>NAME OF SUBMITTER:</b>	ALYSSA R.M. PUGH, REG. NO. 75,253
<b>SIGNATURE:</b>	/Alyssa RM Pugh/
<b>DATE SIGNED:</b>	05/22/2018

**Total Attachments: 7**

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UOP-510US

PATENT

(Pending International Application No. PCT/US2015/036678)

ASSIGNMENT

WHEREAS, We Daeyeon LEE, Francesco ANGILE, Kevin VARGO, Daniel A. HAMMER, Chandra M. SEHGAL, residing at 1510 Crest Road, Wynnewood, PA 19096, residing at 2429 Locust Street, Apt. 406, Philadelphia, PA 19103, residing at 1815 John F. Kennedy Blvd., Apt 1114, Philadelphia, PA 19103, residing at ~~621 Cedar Lane, Villanova, PA 19085~~ and residing at 612 Wallace Drive, Wayne, PA 19087, hereinafter referred to as the "assignors" are the inventor of certain inventions or improvements for which we have made application for Letters Patent of the United States, identified as Application No. \_\_\_\_\_, filed \_\_\_\_\_, entitled **APPARATUS AND METHODS FOR MAKING RECOMBINANT PROTEIN-STABILIZED MONODISPERSE MICROBUBBLES;** and

WHEREAS, The Trustees Of The University Of Pennsylvania hereinafter referred to as the assignee, of 3160 Chestnut Street, Suite 200, Philadelphia, Pennsylvania 19104, a university of higher education in Pennsylvania, is desirous of acquiring the entire right, title and interest in and to the said inventions or improvements and in and to the said patent application, and to any patent application(s) corresponding thereto, and in, to and under any and all Letters Patent which may be granted on or as a result thereof in any and all countries:

NOW, THEREFORE, for and in exchange for valuable consideration from the receipt of which is hereby acknowledged and intending to be bound, we, the said assignors, have sold, assigned, transferred and set over, effective as of the earliest date listed below, and by these presents do hereby sell, assign, transfer and set over to said assignee, the entire right, title and interest in and to said inventions or improvements and said patent application and any and all corresponding patent application(s) and continuations, divisions and renewals of and substitutes for said corresponding patent application(s), and in, to and under any and all Letters Patent which may be granted on or as a result thereof in the United States and any and all other countries, and any reissue or reissues or extension or extensions of said Letters Patent, and assign to and authorize said assignee, to file in our names corresponding patent applications for Letters Patent in all countries, the same to be held and enjoyed by said assignee, its successors, assigns, nominees or legal representatives, to the full end of the term or terms for which said Letters Patent respectively may be granted, reissued or extended, as fully and entirely as the same would have been held and enjoyed by us had this assignment, sale and transfer not been made.

AND we hereby covenant that we have full right to convey the entire interest herein assigned, and that we have not executed and will not execute any agreement in conflict herewith, and we further covenant and agree that we will each time request is made and without undue delay, execute and deliver all such papers as may be necessary or desirable to perfect the title to said inventions or improvements, said patent application, said corresponding patent application(s) and said Letters Patent to said assignee, its successors,

assigns, nominees or legal representatives, and we agree to communicate to said assignee, or to its nominee all known facts respecting said inventions or improvements, said patent application, said corresponding patent application(s) and said Letters Patent, to testify in any legal proceedings, to sign all lawful papers, to execute all disclaimers and divisional, continuing, reissue and foreign applications, to make all rightful oaths, and generally to do everything possible to aid said assignee, its successors, assigns, nominees and legal representatives to obtain and enforce for its or their own benefit proper patent protection for said inventions or improvements in any and all countries.

AND we hereby authorize and request the Commissioner of Patents and Trademarks of the United States and any official of any country or countries foreign to the United States whose duty it is to issue patents on any applications as aforesaid, to issue to said assignee, as assignee of the entire right, title and interest, any and all Letters Patent for said inventions or improvements, including any and all Letters Patent of the United States which may be issued and granted on or as a result of any corresponding patent application(s) aforesaid, in accordance with the terms of this assignment.

This Assignment may be executed in counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. IN WITNESS WHEREOF, we have hereunto set our hand and seal.

April 11, 2017  
Date

Daejeon LEE (L.S.)

STATE OF Pennsylvania :  
COUNTY OF Philadelphia : SS

On this 11<sup>th</sup> day of April, year of 2017, before me personally came the above named Daejeon Lee to me personally known and known to me to be the same individual who executed the foregoing assignment, and who acknowledged to me that execution of the same was of that person's own free will for the use and purposes therein set forth.

Jessica Coyle Brennan  
Notary Public

COMMONWEALTH OF PENNSYLVANIA  
NOTARIAL SEAL  
Jessica Coyle Brennan, Notary Public  
City of Philadelphia, Philadelphia County  
My Commission Expires Feb. 26, 2021  
MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

\_\_\_\_\_  
Date

Francesco ANGILE (L.S.)

STATE OF \_\_\_\_\_ :  
COUNTY OF \_\_\_\_\_ : SS

On this \_\_\_\_\_ day of \_\_\_\_\_, year of \_\_\_\_\_, before me personally came the above named \_\_\_\_\_ to me personally known and known to me to be the same individual who executed the foregoing assignment, and who acknowledged to me that execution of the same was of that person's own free will for the use and purposes therein set forth.

\_\_\_\_\_  
Notary Public

UOP-510US

(Pending International Application No. PCT/US2015/036678)

PATENT

\_\_\_\_\_  
Date **Daeyeon LEE** (L.S.)

STATE OF \_\_\_\_\_ :  
: SS  
COUNTY OF \_\_\_\_\_ :

On this \_\_\_\_\_ day of \_\_\_\_\_, year of \_\_\_\_, before me personally came the above named \_\_\_\_\_ to me personally known and known to me to be the same individual who executed the foregoing assignment, and who acknowledged to me that execution of the same was of that person's own free will for the use and purposes therein set forth.

\_\_\_\_\_  
Notary Public

12/14/2016  
Date *Francesco Angile* (L.S.)  
**Francesco ANGILE**

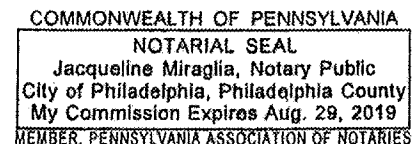
STATE OF PENNSYLVANIA :  
: SS  
COUNTY OF PHILADELPHIA :

On this 14 day of December, year of 2016, before me personally came the above named Francesco Angile to me personally known and known to me to be the same individual who executed the foregoing assignment, and who acknowledged to me that execution of the same was of that person's own free will for the use and purposes therein set forth.

*Jacqueline Miraglia*  
Notary Public

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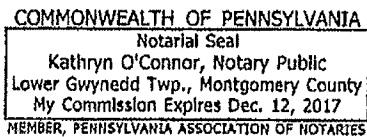


PATENT  
REEL: 045874 FRAME: 0175

12/12/16 \_\_\_\_\_ (L.S.)  
Date Kevin VARGO

STATE OF Pennsylvania :  
COUNTY OF Montgomery : SS

On this 12 day of December, year of 2016, before me personally came the above named Kevin VARGO to me personally known and known to me to be the same individual who executed the foregoing assignment, and who acknowledged to me that execution of the same was of that person's own free will for the use and purposes therein set forth.



Kathryn O'Connor  
Notary Public

\_\_\_\_\_  
Date Daniel A. HAMMER (L.S.)

STATE OF \_\_\_\_\_ :  
COUNTY OF \_\_\_\_\_ : SS

On this \_\_\_\_\_ day of \_\_\_\_\_, year of \_\_\_\_\_, before me personally came the above named \_\_\_\_\_ to me personally known and known to me to be the same individual who executed the foregoing assignment, and who acknowledged to me that execution of the same was of that person's own free will for the use and purposes therein set forth.

\_\_\_\_\_  
Notary Public

UOP-510US

PATENT

(Pending International Application No. PCT/US2015/036678)

\_\_\_\_\_  
Date **Kevin VARGO** (L.S.)

STATE OF \_\_\_\_\_:  
: SS  
COUNTY OF \_\_\_\_\_:

On this \_\_\_\_\_ day of \_\_\_\_\_, year of \_\_\_, before me personally came the above named \_\_\_\_\_ to me personally known and known to me to be the same individual who executed the foregoing assignment, and who acknowledged to me that execution of the same was of that person's own free will for the use and purposes therein set forth.

\_\_\_\_\_  
Notary Public

**9.27.17**  
Date **Daniel A. HAMMER** (L.S.)

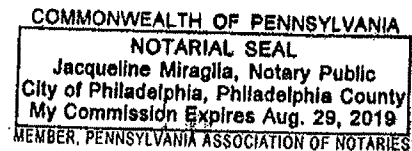
STATE OF Pennsylvania:  
COUNTY OF Philadelphia: SS

On this 27 day of September year of 2017, before me personally came the above named Daniel A. Hammer to me personally known and known to me to be the same individual who executed the foregoing assignment, and who acknowledged to me that execution of the same was of that person's own free will for the use and purposes therein set forth.

Jacqueline Miraglia  
Notary Public

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PATENT  
REEL: 045874 FRAME: 0177



UOP-510US

(Pending International Application No. PCT/US2015/036678)

PATENT

3-17-2017 Chandra M. Sehgal (L.S.)  
Date Chandra M. SEHGAL

STATE OF Pennsylvania :  
COUNTY OF Philadelphia : SS

On this 17<sup>th</sup> day of March, year of 2017, before me personally came the  
above named Chandra M. Sehgal to me personally known and known to me  
to be the same individual who executed the foregoing assignment, and who acknowledged to  
me that execution of the same was of that person's own free will for the use and purposes  
therein set forth.

Samantha Soyoung Koo  
Notary Public

