503759556 03/30/2016

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
CHAO-WEI HWANG	02/02/2016
ZHIYONG XIA	02/02/2016
VIRGINIA E. BOGDAN	03/02/2016
JEFFREY A. BRINKER	03/23/2016
GARY GERSTENBLITH	02/03/2016
PETER V. JOHNSTON	02/12/2015
STEVEN P. SCHULMAN	03/24/2016
GORDON TOMASELLI	03/29/2016
ROBERT G. WEISS	03/23/2016

RECEIVING PARTY DATA

Name:	THE JOHNS HOPKINS UNIVERSITY
Street Address:	34TH AND CHARLES STREET
City:	BALTIMORE
State/Country:	MARYLAND
Postal Code:	21218

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15025902

CORRESPONDENCE DATA

Fax Number: (240)228-5254

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.

Phone: 240-228-5640

Email: noah.hayward@jhuapl.edu

THE JOHNS HOPKINS UNIVERSITY APPLIED PHY **Correspondent Name:**

Address Line 1: 11100 JOHNS HOPKINS ROAD

Address Line 2: MAIL STOP 7-127

LAUREL, MARYLAND 20723-6099 Address Line 4:

ATTORNEY DOCKET NUMBER:	3656-SPL-US
NAME OF SUBMITTER:	NOAH J. HAYWARD

PAIENI **REEL: 038130 FRAME: 0978** 503759556

SIGNATURE:	/Noah J. Hayward/
DATE SIGNED:	03/30/2016
	This document serves as an Oath/Declaration (37 CFR 1.63).
Total Attachments: 9	·
source=hwang#page1.tif	
source=xia#page1.tif	
source=bogdan#page1.tif	
source=brinker#page1.tif	
source=gerstenblith#page1.tif	
source=johnston#page1.tif	
source=schulman#page1.tif	
source=tomaselli#page1.tif	

source=weiss#page1.tif

PATENT REEL: 038130 FRAME: 0979

		
Title of Invention	CELL IMPREGNATED SLEEVE FOR PARACRINE AND OTHER FACTOR PRODUCTION	
As the below nam	ed inventor. I hereby declare that:	
This declaration is directed to:	The attached application, or United States application or PCT international application number PCT/US2014/059400 filed on October 7, 2014	
The above-identif	ied application was made or authorized to be made by me.	
I believe that I am	the original inventor or an original joint inventor of a claimed invention in the application.	
I hereby acknowle by fine or impriso	edge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 nment of not more than five (5) years, or both.	
WHEREAS, The Johns Hopkins University, a corporation organized and existing under the laws of the State of Maryland and having its principal place of business at Baltimore, Maryland, hereinafter referred to as the ASSIGNEE, desires to acquire the entire right, title and interest in and to said invention and to any Letters Patent that may be generated therefore in the United States and its territories and in any and all foreign countries.		
NOW, THEREFORE, in consideration of the ASSIGNEE attempting to patent and license the invention and incurring costs associated therewith. I do hereby sell, assign and transfer to the ASSIGNEE the entire right, title and interest in and to said invention in the United States and its territories and in all foreign countries and the entire right, title and interest in and to any and all Letters Patent which may be granted for said invention in the United States and its territories and in any and all foreign countries and in and to any and all divisions, reissues, continuations, substitutions and renewals thereof.		
I hereby authorize and request the Patent Office Officials in the United States and its territories and any and all foreign countries to issue any and all of said Letters Patent, when granted, to said ASSIGNEE as the assignee of my entire right, title and interest in and to the same, for the sole use and behoof of said ASSIGNEE, its successors and assigns, to the full end of the term for which said Letters Patent may be granted.		
I hereby further agree to make, execute and deliver to the ASSIGNEE, its successors, assigns and legal representatives, upon request but at the expense of the ASSIGNEE, any and all papers, documents, affidavits, statements or other instruments that may be necessary in the prosecution of the aforesaid application, and of any United States or foreign applications, and of any divisions, reissues, continuations, substitutions and renewals of said application, or applications for reissues of said Letters Patents, and to aid the ASSIGNEE, its successors, assigns and legal representatives in every way in protecting said invention as may be requested, provided, however that I shall not have to pay any expenses arising from extending such assistance.		
LEGAL NAME O	FINVENTOR	
Inventor: Chao-	Wei Hwang	
Signature:	Date: 2/2/2016	

JHU/APL Docket No. 3656-SPL-US
PATENT
REEL: 038130 FRAME: 0980

Title of Invention	CELL IMPREGNATED SLEEVE FOR PARACRINE AND OTHER FACTOR PRODUCTION
As the below nam	ed inventor, I hereby declare that:
This declaration is directed to:	The attached application, or United States application or PCT international application number PCT/US2014/059400 filed on October 7, 2014
The above-identifi	ed application was made or authorized to be made by me.
I believe that I am	the original inventor or an original joint inventor of a claimed invention in the application.
I hereby acknowle by fine or imprisor	dge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 iment of not more than five (5) years, or both.
Maryland and havi ASSIGNEE, desire	ohns Hopkins University, a corporation organized and existing under the laws of the State of ng its principal place of business at Baltimore, Maryland, hereinafter referred to as the to acquire the entire right, title and interest in and to said invention and to any Letters Patent ted therefore in the United States and its territories and in any and all foreign countries.
to the ASSIGNEE and in all foreign c granted for said in	RE, in consideration of my employment by the ASSIGNEE, I do hereby sell, assign and transfer the entire right, title and interest in and to said invention in the United States and its territories ountries and the entire right, title and interest in and to any and all Letters Patent which may be vention in the United States and its territories and in any and all foreign countries and in and to as, reissues, continuations, substitutions and renewals thereof.
foreign countries to entire right, title an	and request the Patent Office Officials in the United States and its territories and any and all issue any and all of said Letters Patent, when granted, to said ASSIGNEE as the assignee of my d interest in and to the same, for the sole use and behoof of said ASSIGNEE, its successors and end of the term for which said Letters Patent may be granted.
representatives, up- statements or other United States or for said application, or assigns and legal re	ree to make, execute and deliver to the ASSIGNEE, its successors, assigns and legal on request but at the expense of the ASSIGNEE, any and all papers, documents, affidavits, instruments that may be necessary in the prosecution of the aforesaid application, and of any reign applications, and of any divisions, reissues, continuations, substitutions and renewals of applications for reissues of said Letters Patents, and to aid the ASSIGNEE, its successors, appresentatives in every way in protecting said invention as may be requested, provided, however to pay any expenses arising from extending such assistance.
LEGAL NAME OF	INVENTOR
Inventor: Zhiyon	g Xia
Signature:	Date: 02/02/2016
	3656-SPL-US

JHU/APL Docket No.: 3656-SPL-US

PATENT REEL: 038130 FRAME: 0981

Title of Invention	CELL IMPREGNATED SLEEVE FOR PARA PRODUCTION	CRINE AND OTHER FACTOR
As the below nam	med inventor, I hereby declare that:	
This declaration is directed to:	The attached application, or United States application or PCT international applied on October 7, 2014	pplication number PCT/US2014/059400
The above-identif	fied application was made or authorized to be made b	y me.
I believe that I am	n the original inventor or an original joint inventor of	a claimed invention in the application.
	I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.	
WHEREAS, The Johns Hopkins University, a corporation organized and existing under the laws of the State of Maryland and having its principal place of business at Baltimore, Maryland, hereinafter referred to as the ASSIGNEE, desires to acquire the entire right, title and interest in and to said invention and to any Letters Patent that may be generated therefore in the United States and its territories and in any and all foreign countries.		
NOW, THEREFORE, in consideration of the ASSIGNEE attempting to patent and license the invention and incurring costs associated therewith, I do hereby sell, assign and transfer to the ASSIGNEE the entire right, title and interest in and to said invention in the United States and its territories and in all foreign countries and the entire right, title and interest in and to any and all Letters Patent which may be granted for said invention in the United States and its territories and in any and all foreign countries and in and to any and all divisions, reissues, continuations, substitutions and renewals thereof.		
I hereby authorize and request the Patent Office Officials in the United States and its territories and any and all foreign countries to issue any and all of said Letters Patent, when granted, to said ASSIGNEE as the assignee of my entire right, title and interest in and to the same, for the sole use and behoof of said ASSIGNEE, its successors and assigns, to the full end of the term for which said Letters Patent may be granted.		
I hereby further agree to make, execute and deliver to the ASSIGNEE, its successors, assigns and legal representatives, upon request but at the expense of the ASSIGNEE, any and all papers, documents, affidavits, statements or other instruments that may be necessary in the prosecution of the aforesaid application, and of any United States or foreign applications, and of any divisions, reissues, continuations, substitutions and renewals of said application, or applications for reissues of said Letters Patents, and to aid the ASSIGNEE, its successors, assigns and legal representatives in every way in protecting said invention as may be requested, provided, however that I shall not have to pay any expenses arising from extending such assistance.		
LEGAL NAME C	OF INVENTOR	
	nia E. Bogdan	
Signature: 063		Date: March 2, 2016

JHU/APL Docket No.: 3656-SPL-US **PATENT**

Title of Invention	CELL IMPREGNATED SLEEVE FOR PARACRINE AND OTHER FACTOR PRODUCTION
As the below nam	ned inventor, I hereby declare that:
This declaration is directed to:	The attached application, or United States application or PCT international application number FCT/US2014/059400 filed on October 7, 2014
The above-identif	ied application was made or authorized to be made by me.
I believe that I an	the original inventor or an original joint inventor of a claimed invention in the application.
	edge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 nament of not more than five (5) years, or both.
Maryland and have ASSIGNEE, desired	Johns Hopkins University, a corporation organized and existing under the laws of the State of ving its principal place of business at Baltimore, Maryland, hereinafter referred to as the res to acquire the entire right, title and interest in and to said invention and to any Letters Patent rated therefore in the United States and its territories and in any and all foreign countries.
incurring costs as interest in and to right, title and interest States and its terri	ORE, in consideration of the ASSIGNEE attempting to patent and license the invention and sociated therewith, I do hereby sell, assign and transfer to the ASSIGNEE the entire right, title and said invention in the United States and its territories and in all foreign countries and the entire erest in and to any and all Letters Patent which may be granted for said invention in the United stories and in any and all foreign countries and in and to any and all divisions, reissues, estitutions and renewals thereof.
foreign countries entire right, title a	e and request the Patent Office Officials in the United States and its territories and any and all to issue any and all of said Letters Patent, when granted, to said ASSIGNEE as the assignee of my and interest in and to the same, for the sole use and behoof of said ASSIGNEE, its successors and lend of the term for which said Letters Patent may be granted.
representatives, u statements or othe United States or f said application, of assigns and legal	gree to make, execute and deliver to the ASSIGNEE, its successors, assigns and legal pon request but at the expense of the ASSIGNEE, any and all papers, documents, affidavits, or instruments that may be necessary in the prosecution of the aforesaid application, and of any foreign applications, and of any divisions, reissues, continuations, substitutions and renewals of or applications for reissues of said Letters Patents, and to aid the ASSIGNEE, its successors, representatives in every way in protecting said invention as may be requested, provided, however we to pay any expenses arising from extending such assistance.
LEGAL NAME (OF INVENTOR
Inventor: Jeffre	y A. Brinker
Signature:	Date: 3/23/2016
	JHU/APL Docket No.: 3656-SPL-US

PATENT REEL: 038130 FRAME: 0983

Title of Invention	CELL IMPREGNATED SLEEVE FOR PARACRINE AND OTHER FACTOR PRODUCTION		
As the below nam	As the below named inventor, I hereby declare that:		
This declaration is directed to:	The attached application, or United States application or PCT international application number filed on October 7, 2014 PCT/US2014/059400 PCT/US2014/059400		
The above-identifi	ied application was made or authorized to be made by me.		
I believe that I am	the original inventor or an original joint inventor of a claimed invention in the application.		
	edge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 nment of not more than five (5) years, or both.		
WHEREAS, The Johns Hopkins University, a corporation organized and existing under the laws of the State of Maryland and having its principal place of business at Baltimore, Maryland, hereinafter referred to as the ASSIGNEE, desires to acquire the entire right, title and interest in and to said invention and to any Letters Patent that may be generated therefore in the United States and its territories and in any and all foreign countries.			
NOW, THEREFORE, in consideration of the ASSIGNEE attempting to patent and license the invention and incurring costs associated therewith, I do hereby sell, assign and transfer to the ASSIGNEE the entire right, title and interest in and to said invention in the United States and its territories and in all foreign countries and the entire right, title and interest in and to any and all Letters Patent which may be granted for said invention in the United States and its territories and in any and all foreign countries and in any and all divisions, reissues, continuations, substitutions and renewals thereof.			
I hereby authorize and request the Patent Office Officials in the United States and its territories and any and all foreign countries to issue any and all of said Letters Patent, when granted, to said ASSIGNEE as the assignee of my entire right, title and interest in and to the same, for the sole use and behoof of said ASSIGNEE, its successors and assigns, to the full end of the term for which said Letters Patent may be granted.			
I hereby further agree to make, execute and deliver to the ASSIGNEE, its successors, assigns and legal representatives, upon request but at the expense of the ASSIGNEE, any and all papers, documents, affidavits, statements or other instruments that may be necessary in the prosecution of the aforesaid application, and of any United States or foreign applications, and of any divisions, reissues, continuations, substitutions and renewals of said application, or applications for reissues of said Letters Patents, and to aid the ASSIGNEE, its successors, assigns and legal representatives in every way in protecting said invention as may be requested, provided, however that I shall not have to pay any expenses arising from extending such assistance.			
LEGAL NAME C	OF INVENTOR		
Inventor: Gary	Gerstenblith		
Signature:	puy Surhibi Date: 2/3/16		

JHU/APL Docket No.: 3656-SPL-US

Title of Invention	CELL IMPREGNATED SLEEVE FOR PARACRINE AND OTHER FACTOR PRODUCTION
As the below nam	ed inventor, I hereby declare that:
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The above-identif	ned application was made or authorized to be made by me.
I believe that I am	the original inventor or an original joint inventor of a claimed invention in the application.
I hereby acknowled by fine or impriso	edge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 onment of not more than five (5) years, or both.
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LEGAL NAME	
Inventor: Peter	V. Johnston
Signature:	Date: 2/12/2015

JHU/APL Docket No.: 3656-SPL-US

Title of Invention	CELL IMPREGNATED SLEEVE FOR PARACRINE AND OTHER FACTOR PRODUCTION
As the below named inventor, I hereby declare that:	
This declaration is directed to:	The attached application, or United States application or PCT international application number PCT/US2014/059400 PCT/US20
The above-identified application was made or authorized to be made by me.	
I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.	
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LEGAL NAME OF INVENTOR	
Inventor: Steven P. Schulman	
Signature: 124/2016	

JHU/APL Docket No.: 3656-SPL-US

JHU/APL Docket No.: 3656-SPL-US

PATENT

REEL: 038130 FRAME: 0987

111112 01	ELL IMPREGNATED SLEEVE FOR PARACRINE AND OTHER FACTOR RODUCTION	
As the below named inventor, I hereby declare that:		
is directed to:	The attached application, or United States application or PCT international application number	
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I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.		
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LEGAL NAME OF INVENTOR		
Inventor: Robert G. Weiss		
Signature: 1	56W	

JHU/APL Docket No.: 3656-SPL-US

PATENT REEL: 038130 FRAME: 0988

RECORDED: 03/30/2016