505875150 01/22/2020

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
JAMES E. GALEN	05/29/2018
THANH PHAM	05/29/2018
JIN-YUAN WANG	01/16/2020

RECEIVING PARTY DATA

Name:	UNIVERSITY OF MARYLAND, BALTIMORE
Street Address:	620 WEST LEXINGTON STREET, 4TH FLOOR
Internal Address:	OFFICE OF RESEARCH & DEVELOPMENT, OTT
City:	BALTIMORE
State/Country:	MARYLAND
Postal Code:	21201

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16614261

CORRESPONDENCE DATA

Fax Number: (410)706-1066

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: 410-706-5534

Email: dmmeyer@umaryland.edu

Correspondent Name: DENISE M. MEYER

Address Line 1: 620 WEST LEXINGTON STREET, 4TH FLOOR
Address Line 2: OFFICE OF RESEARCH & DEVELOPMENT, OTT

Address Line 4: BALTIMORE, MARYLAND 21201

ATTORNEY DOCKET NUMBER:	JG-2017-049US UMB-044US1
NAME OF SUBMITTER:	DENISE M. MEYER
SIGNATURE:	/Denise M. Meyer/
DATE SIGNED:	01/22/2020

Total Attachments: 3

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PATENT REEL: 051578 FRAME: 0645 UMB Docket No: JG-2017-049

ASSIGNMENT

In consideration of UMB's agreement to consider Assignors as a "UMB Inventors" who are entitled to revenue distributions under the University System of Maryland Policy on Intellectual Property, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, James E. Galen, Thanh Pham, Dacie R. Bridge and Jin-Yuan Wang ("Assignors") hereby convey, assign, and transfers to the University of Maryland, Baltimore, a public university that is part of the University System of Maryland (which is a public corporation and an instrumentality of the State of Maryland) ("UMB"), and having an office c/o Office of Research and Development, 620 W. Lexington Street, 4th floor, Baltimore, MD 21201, their entire right, title, and interest in and to the invention known as "Live Salmonella Typhi Vectors Engineered to Express Heterlogous Outer Membrane Protein Antigens and Methods of Use Thereof" (the "Invention"):

check applicable space(s)

[x] for the United States of America (as defined in 35 U.S.C. §100)

[x] and throughout the world,

for which application(s) for patent was under the Patent Cooperation Treaty on May 15, 2018 (also known as international patent application number PCT/US2018/032662, and in any and all non-provisional and/or international or foreign patent applications thereon, continuing patent applications thereon (including without limitation substitutions, divisionals, continuations, and continuations-in-part), patents or Letters Patent issued therefrom, and reissues, extensions, renewals, and reexaminations of such applications or patents.

Such entire right, title, and interest in the Invention are to be held and enjoyed by UMB to the same extent as they would have been held and enjoyed by Assignors had this Assignment not been made, to the full end of the term or terms for which any such patent(s) issue. Assignors hereby represent and warrant that they have full right to convey their right, title, and interest in the Invention herein assigned, and that they have not executed and will not execute any agreement or other document in conflict therewith.

Assignors agree to execute and deliver separate Assignments, patent applications, and other documents necessary or expedient in connection with, and to cooperate with and to assist UMB in connection with: further perfecting the assignment of the Invention to UMB; UMB's preparation, filing, prosecution (including without limitation defense in interference proceedings, reexaminations, or litigation), enforcement, and/or maintenance of the patents and patent applications; or for UMB to protect and commercialize its intellectual property right, title, and interests in the Invention (including without limitation copyright and/or trademarks).

IN WITNESS WHEREOF, executed by Assignor(s) on the date opposite his/her name.

	ASSIGNOR:	
MAY 29, 2018	James E. Galen (SEAL)	
	Address:	
	5807 Victor Drive	
	Eldersburg, Maryland 21784-8439	
STATE OF <u>Mary land</u> CITY/COUNTY OF <u>Baltimore</u>))	
I HEREBY CERTIFY, that on this 29 day of of Mary land, personally appeared James	May, 20 <u>18</u> , before me, Notary Public of the State s E. Galen, known to me (or satisfactorily proven) to be the person nowledged that, being authorized to do so, he or she executed the	
IN WITNESS WHEREOF, I have hereunto set my l	hand and official seal the day and year last above mentioned.	
	hand and official seal the day and year last above-montioned. Wernse M. Mey SEAL] Notary Public NOTARY	
	Notary Public O S NOTARY	
My Commission Expires: 4-11-2021	PUBLIC	
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REEL: 051578 FRAME: 0646

UMB Docket No: JG-2017-049			
,		ASSIGNOR:	
05/29/2018		Thank Pham	(SEAL)
zate		Address: 6803 Old Waterloo Rd., Apt 803 Elkridge, MD 21075	,
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ame as for the purposes contained therein.		, 20, before me, Notary th Pham, known to me (or satisfactorily prove knowledged that, being authorized to do so, he o	
IN WITNESS WHEREOF, I have he	ereunto set my	hand and official seal the day and year last abov	
		Notary Public	[SEAL]
My Commission Expires:			
		ASSIGNOR:	
		ASSIGNOR:	(SEAL)
Date		Dacie R. Bridge	(SEAL)
Date			(SEAL)
		Dacie R. Bridge Address: 272 Pizza Barn Road	(SEAL)
STATE OF	day of day of appeared Dad	Dacie R. Bridge Address: 272 Pizza Barn Road	
STATE OF CITY / COUNTY OF I HEREBY CERTIFY, that on this person whose name is subscribed to the wexecuted the same as for the purposes contain	day of appeared Dad vithin instrument therein.	Dacie R. Bridge Address: 272 Pizza Barn Road Blairsville, Pennsylvania 15715	Public of the State proven) to be the o do so, he or she
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PATENT REEL: 051578 FRAME: 0647

UMB Docket No: JG-2017-049			
Y16/2020 Date		ASSIGNOR: Jin-Yuan Wang Address: 13105 Shinnecock Drive Silver Spring, Maryland 2090	(SEAL)
STATE OF)		
I HEREBY CERTIFY, that on this of, personally a person whose name is subscribed to the with executed the same as for the purposes contained IN WITNESS WHEREOF, I have here	i therein.		
IN WITNESS WHEREOF, I have here	anto set my h		[SEAL]
A. C. and in Erralman		Notary Public	
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