505571943 07/15/2019

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 EPAS ID: PAT5618741

Stylesheet Version v1.2

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
VLADIMIR ROUSKOV KHRISTOV	02/21/2018
ARVYDAS MIMINISHKIS	02/09/2018
KAPIL BHARTI JR	02/23/2018

RECEIVING PARTY DATA

Name:	THE UNITED STATES OF AMERICA, AS REPRESENTED BY THE SECRETARY, DEPARTMENT OF HEALTH AND HUMAN SERVICES	
Street Address:	6011 EXECUTIVE BOULEVARD	
City:	BETHESDA	
State/Country:	MARYLAND	
Postal Code:	20892-7660	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16478093

CORRESPONDENCE DATA

Fax Number: (503)595-5301

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: 503-595-5300

Email: tamara.daw@klarquist.com

Correspondent Name: KLARQUIST SPARKMAN, LLP (OTT-NIH)

Address Line 1: 121 S.W. SALMON STREET

Address Line 2: SUITE #1600

Address Line 4: PORTLAND, OREGON 97204-2988

ATTORNEY DOCKET NUMBER:	4239-98058-07	
NAME OF SUBMITTER:	SANDON M. DUNCAN	
SIGNATURE:	/Sandon M. Duncan/	
DATE SIGNED:	07/15/2019	

Total Attachments: 3

source=Assignment#page1.tif source=Assignment#page2.tif

PATENT 505571943 REEL: 049756 FRAME: 0021

source=Assignment#page3.tif

PATENT REEL: 049756 FRAME: 0022

ASSIGNMENT FOR NIH/CDC INVENTIONS AIA (NIH OR CDC CO-INVENTORS ONLY)

WHEREAS, we, Vladimir Rouskov Khristov, Arvydas Maminishkis, and Kapil Bharti, Jr., employees and/or contractors of the National Institutes of Health, are each employed and/or contracted by a component of the United States Department of Health and Human Services having an address at the Office of Technology Transfer, National Institutes of Health, 6011 Executive Boulevard, Suite 325, MSC 7660, Bethesda, MD 20892-7660, and have made certain inventions as described and claimed in:

U.S. Provisional Patent Application No. 62/453,148, filed on February 1, 2017, entitled "DEVICES FOR TISSUE CRYOPRESERVATION AND RECOVERY," and

PCT Patent Application No. PCT/US2018/016101, filed on January 31, 2018, entitled "DEVICES FOR TISSUE CRYOPRESERVATION AND RECOVERY,"

both applications are referred to herein as "The Patent Application(s)"; and

WHEREAS, we are the inventors named in The Patent Application(s); and

WHEREAS, the inventions described and claimed in The Patent Application(s) were made under conditions such as to entitle THE UNITED STATES OF AMERICA, as represented by the Secretary, Department of Health and Human Services [hereinafter THE GOVERNMENT] under Executive Order 10096 and its amendments, 35 U.S.C. §§200-201, §§206-207, and §210 and 37 C.F.R. Part 501 to the entire right, title, and interest in such inventions; and

WHEREAS, THE GOVERNMENT is desirous of acquiring all domestic and foreign right, title, and interest in the inventions described and claimed in The Patent Application(s);

NOW, THEREFORE, having the legal obligation to assign our right, title and interest in the inventions described and claimed in **The Patent Application(s)** to **THE GOVERNMENT**, having a place of business at the Office of Technology Transfer, National Institutes of Health, 6011 Executive Boulevard, Suite 325, MSC 7660, Bethesda, MD 20892-7660 and for consideration, the receipt and sufficiency of which are hereby acknowledged, we hereby assign and transfer to **THE GOVERNMENT**:

the entire right, title, and interest in and to any and all inventions described and claimed in **The Patent Application(s)** and any and all Letters Patent which may be granted thereon, and any and all continuations, divisions, reissues or extensions thereof; and

all rights to claim priority on the basis of **The Patent Application(s)** including but not limited to applications filed through the provisions of the Patent Cooperation Treaty ("PCT Applications"); and

all applications for Letters Patent that may be filed for any and all inventions described and claimed in **The Patent Application(s)** that may be filed in any foreign country and all Letters Patent that may be granted thereon in any foreign country and all extensions, renewals, and reissues thereof; and

ASSIGNMENT - Page 1 of 3

PATENT REEL: 049756 FRAME: 0023 any and all such Letters Patent as may be granted in the United States or any foreign country to be held by **THE GOVERNMENT** to the end of the term for which the same would have been held by the inventor(s) had this assignment not been made.

We further agree to make, execute, and deliver to **THE GOVERNMENT**, upon request, any and all papers, documents, affidavits, or other instruments that may be necessary in the prosecution of any application or applications for improvements or reissues of Letters Patent, and to assist **THE GOVERNMENT** in every way as may be requested in protecting said invention.

IN WITNESS WHEREOF we subscribe our hands and seals on the dates shown below:

Inventor: Vladimir Rouskov Khristov	
Date <u>02/21/2018</u>	Inventor Signature
County of Jorghn Ord	
State of	ist of and
Subscribed and sworn to before me this 🕢	<u></u>
Seal COMMONWEALTH OF PENNSYLVANIA	Notary Signature
NOTARIAL SEAL DAWN M MORGAN, Notary Public	Do II
Derry Twp Dauphin County My Commission Expires Feb. 15, 2021	Notary Public for the State of: ///// 54/10/10
My Comments Expires 1 es. 10, 2021	My Commission Expires: 10. 15. 164

Inventor: Arvydas Maminishkis	
Date 02 09 2018	Inventor Signature
County of MAD Montgomery	· .
State of MD	
Subscribed and sworn to before me this $\underline{\epsilon}$	1 day of February, 2018.
Seal HARPREET KAU NOTARY PUBLIC	Notary Signature: May Duran Company
MONTGOMERY COL	JN Notary Public for the State of: 1
	My Commission Expires: 11 07 2019
Inventor: Kapil Bharti, Jr.	1/ 0
Date <u>0 3 3 3 3 8</u>	Inventor Signature
County of Montgowny	-
State of MD	and the
Subscribed and sworn to before me this _2	2319 day of February, 2018.
Ingrid G Harris NOTARY PUBLIC Prince George's County	Notary Signature:
State of Maryland My Commission Expires	Notary Public for the State of: Warifand
1 104 104 1	My Commission Expires: 7 10 20 20

ASSIGNMENT - Page 3 of 3