### 505827611 12/18/2019

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5874441

SUBMISSION TYPE:	CORRECTIVE ASSIGNMENT	
NATURE OF CONVEYANCE:	Corrective Assignment to correct the APPLICATION NUMBER PCT/2018/059865 previously recorded on Reel 046268 Frame 0463. Assignor(s) hereby confirms the ASSIGNMENT OF 62/517,414 AND ALL CONTINUATIONS, DIVISIONS AND EXTENSIONS THEREOF.	

#### **CONVEYING PARTY DATA**

Name	Execution Date
TAKANORI TAKEBE	06/04/2018
TADAHIRO SHINOZAWA	06/04/2018
HIROYUKI KOIKE	06/02/2018
RIE OUCHI	06/01/2018

#### **RECEIVING PARTY DATA**

Name:	CHILDREN'S HOSPITAL MEDICAL CENTER
Street Address:	3333 BURNET AVENUE
City:	CINCINNATI
State/Country:	OHIO
Postal Code:	45229

#### **PROPERTY NUMBERS Total: 5**

Property Type	Number
Application Number:	62517414
PCT Number:	US2018018585
PCT Number:	US2018059860
PCT Number:	US2017059865
PCT Number:	US2018059845

#### **CORRESPONDENCE DATA**

**Fax Number:** (513)651-6981

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: 5136516427

Email: ntepe@fbtlaw.com

Correspondent Name: NICOLE M. TEPE

Address Line 1: 301 EAST FOURTH STREET Address Line 4: CINCINNATI, OHIO 45202

**ATTORNEY DOCKET NUMBER:** 2016-1003B/F/D/E/C

PATENT REEL: 051365 FRAME: 0393

Tatal Attachments 7	
DATE SIGNED:	12/18/2019
SIGNATURE:	/Nicole M. Tepe/
NAME OF SUBMITTER:	NICOLE M TEPE

#### Total Attachments: 7

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PATENT REEL: 051365 FRAME: 0394

#### PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5036596

	SUBMISSION TYPE:	NEW ASSIGNMENT
- 3	NATURE OF CONVEYANCE.	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
TAKANORI TAKEBE	06/04/2018
TADAHIRO SHINOZAWA	06/04/2018
HIROYUKI KOIKE	06/02/2018
	06/01/2018

#### **RECEIVING PARTY DATA**

Name:	CHILDREN'S HOSPITAL MEDICAL CENTER
Street Address	3333 BURNET AVENUE
City:	CINCINNATI
State/Country:	OHIO
Postal Code:	45229

#### **PROPERTY NUMBERS Total: 5**

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Application Number:	62517414	
PCT Number:	US2018018585	
PCT Number:	US2018059860	
PCT Number:	US2018059865	
PCT Number:	US2018059845	

#### CORRESPONDENCE DATA

Fax Number:

(513)636-8453

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:

513-803-8578

Email:

innovation.ventures\_patents@cchmc.org

Correspondent Name:

LORETTA SHIRK

Address Line 1:

3333 BURNET AVE.

Address Line 2:

MLC7032

Address Line 4:

CINCINNATI, OHIO 45229

-	ATTORNEY DOCKET NUMBER:	2016-1003B/F/D/E/C
-	NAME OF SUBMITTER:	LORETTA SHIRK
- 5	SIGNATURE:	/Loretta Shirk/

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REEL: 046268 FRAME: 0463

**PATENT** 

**REEL: 051365 FRAME: 0395** 

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DATE SIGNED:	07/05/2018	
Total Attachments: 4		
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PATENT REEL: 046268 FRAME: 0464

PATENT REEL: 051365 FRAME: 0396

Docket No.: 2016-1003b Patent Scriel No.: 62/517,414

#### <u>ASSIGNMENT OF INVENTION AND PATENT RIGHTS</u>

WHEREAS, I, Takanori Takebe, a citizen of Japan, residing at 634 Sycamore St., #7G, Cincinnati, OH 45202; Tadahiro Shinozawa, a citizen of Japan, residing at 22-3-101 Muraokahigashi 2-chome, Fujisawa, Kanagawa, 251-0012; Hiroyuki Koike, a citizen of Japan, residing at 1-3-4-402 Kandasarugakucho, Tokyo, 101-0064; and Rie Ouchi, a citizen of Japan, residing at 3031 Eden Avenue, Cincinnati, OH 45219 (hereinafter referred to collectively as "ASSIGNOR"), have invented Methods for Generating Miniature Liver, for which they have executed an application for Letters Patent of the United States, Serial No. 62/517,414, filed on 6/9/2017; and

WHEREAS, Children's Hospital Medical Center, d/b/a Cincinnati Children's Hospital Medical Center, a non-profit corporation duly organized and existing under the laws of the State of Ohio, located at 3333 Burnet Avenue, Cincinnati, Ohio 45229-3039 (hereinafter referred to as "ASSIGNEE"), desires to acquire the entire right, title, and interest therein:

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, ASSIGNOR hereby sells, assigns, and transfers and sets over, unto the said ASSIGNEE, its successors, legal representatives and assigns, the entire right, title and interest in, to and under the said invention, and the said United States application and all divisions, renewals, and continuations thereof, and all patents of the United States which may be granted thereon and all reissues, reexaminations and extensions thereof; and all Patents of the United States which may be granted thereon and all applications for industrial property protection, including, without limitation, all applications for patents, utility models, and designs which may hereafter be filed for said invention in any country or countries foreign to the United States, together with the right to file such applications and the right to claim for the same the priority rights derived from said United States application under Patent Laws of the United States, the International Convention for the Protection of Industrial Property, or any other international agreement or the domestic laws of the country in which any such application is filed, as may be applicable; and all forms of industrial property protection, including, without limitation, patents, willty models and designs, which may be granted for said invention in any country or countries foreign to the United States and all extensions, renewals, reexaminations and reissues thereof;

ASSIGNOR HERBBY authorizes and requests 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 or other evidence or forms of industrial property protection on applications as aforesaid, to issue the same to the said ASSIGNEE, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

ASSIGNOR HEREBY grants the ASSIGNEE, its successors, legal representatives and assigns, the power to insert in this Assignment any further identification or information 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.

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**PATENT** 

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ASSIGNOR HEREBY covenants and agrees that he/she has full rights to convey the entire interest herein assigned, and that he/she has not executed, and will not execute, any agreement in conflict herewith.

ASSIGNOR HEREBY further covenants and agrees that he/she will communicate to the said ASSIGNEE, its successors, legal representatives and assigns, any facts known to them respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing, reissue, reexamination and foreign applications, make all rightful oaths, and generally do everything possible to aid the said ASSIGNEE, its successors, legal representatives and assigns, to obtain and enforce proper protection for said invention in all countries.

(Signatures begin on page 3)

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PATENT REEL: 046268 FRAME: 0466

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Takanori Takebe	Daile
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~ r 1 ~ /	Notary Public
Tadahiro Shinozau Tadahiro Shinozau	1a 06/04/18 Date
STATE OF	
Sworn to and subscribed before me this	day ofs
	Notary Public

Page 3 of 4

PATENT REEL: 046268 FRAME: 0467

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Docket No.: 2016-1003b Potent Sector No.: 62/817,414

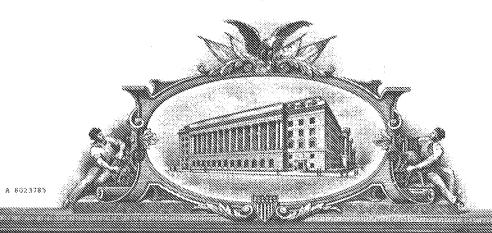
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RECORDED: 07/05/2018

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TO ALL TO WHOM THESE PRESENTS SHALL COME;

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

November 14, 2019

THIS IS TO CERTIFY THAT ANNEXED IS A TRUE COPY FROM THE RECORDS OF THIS OFFICE OF A DOCUMENT RECORDED ON JULY 5, 2018.

By Authority of the

Under Secretary of Commerce for Intellectual Property and Director of the United States Patent and Trademark Office



RECORDED: 12/18/2019

W. MONTGOMERY
Certifying Officer

PATENT REEL: 051365 FRAME; 040