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PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
JEFFREY T. BORENSTEIN	01/22/2016
ERNEST KIM	01/05/2016
JOSEPH L. CHAREST	01/05/2016
ALLA EPSHTEYN	02/02/2016
ABIGAIL SPENCER	01/21/2016
JAMES TRUSLOW	01/11/2016

RECEIVING PARTY DATA

Name:	THE CHARLES STARK DRAPER LABORATORY, INC.	
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City:	CAMBRIDGE	
State/Country:	MASSACHUSETTS	
Postal Code:	02139	

PROPERTY NUMBERS Total: 1

Property Type	Number	
Application Number:	14694628	

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ATTORNEY DOCKET NUMBER:	102590-0475
NAME OF SUBMITTER:	CASSANDRA MEYER FOR EDWARD A. GORDON
SIGNATURE:	/Cassandra Meyer for Edward A. Gordon/
DATE SIGNED:	02/02/2016

PATENT REEL: 037648 FRAME: 0505 503676527

Total Attachments: 8 source=20160202_102590-0475_Assignment#page1.tif source=20160202_102590-0475_Assignment#page2.tif source=20160202_102590-0475_Assignment#page3.tif source=20160202_102590-0475_Assignment#page4.tif source=20160202_102590-0475_Assignment#page5.tif source=20160202_102590-0475_Assignment#page6.tif source=20160202_102590-0475_Assignment#page7.tif source=20160202_102590-0475_Assignment#page8.tif

PATENT REEL: 037648 FRAME: 0506

ASSIGNMENT - WORLDWIDE

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, each undersigned inventor (hereinafter referred to singly and collectively as "ASSIGNOR") has sold, assigned, and transferred, and by these presents hereby sells, assigns, and transfers, unto

The Charles Stark Draper Laboratory, Inc. 555 Technology Square Cambridge, Massachusetts 02139

(hereinafter referred to as "ASSIGNEE") its successors and assigns, the full and exclusive right, title and interest for the United States, its territories and possessions, and all foreign countries in and to this invention relating to

BLOOD OXYGENATOR

as set	forth	in this	United States Patent Ap	plication
check	one	_] executed concurrently lexecuted on	herewith,
		[X] Serial No. <u>14/694,628</u>	Filed <u>4/23/2015</u>

as well as in and to (a) all improvements and modifications of the above-identified invention or inventions, (b) the above-identified application and all other applications for Letters Patent of the United States and countries foreign thereto for above-identified invention or inventions and all improvements and modifications thereof, (c) all Letters Patent which may issue from said applications in the United States and countries foreign thereto, (d) all divisions, continuations, reissues, and extensions of said applications and Letters Patent, and (e) the right to claim for any of said applications the full benefits and priority rights under the Patent Cooperation Treaty, the Paris Convention and any other international agreement; such right, title, and interest to be held and enjoyed by ASSIGNEE, its successors and assigns, to the full end of the term or terms for which any and all such Letters Patent may be granted as fully and entirely as would have been held and enjoyed by ASSIGNOR had this Assignment not been made.

ASSIGNOR HEREBY AUTHORIZES ASSIGNEE to file patent applications in any or all countries on the above-identified invention or inventions in the name of the undersigned or in the name of ASSIGNEE or otherwise as ASSIGNEE may deem advisable under the International Convention or otherwise.

ASSIGNOR HEREBY AUTHORIZES AND REQUESTS the Commissioner of Patents and Trademarks to issue said Letters Patent to ASSIGNEE as assignee of the entire interest, for the sole use and benefit of ASSIGNEE, its successors and assigns.

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ASSIGNOR HEREBY AGREES (a) to communicate to ASSIGNEE, its successors and assigns, or their representative or agents, all facts and information known or available to ASSIGNOR respecting said invention or inventions, improvements, and modifications including evidence for interference, reexamination, reissue, opposition, revocation, extension, or infringement purposes or other legal, judicial, or administrative proceedings, whenever requested by ASSIGNEE; (b) to testify in person or by affidavit as required by ASSIGNEE, its successors and assigns, in any such proceeding in the United States or a country foreign thereto; (c) to execute and deliver, upon request by ASSIGNEE, all lawful papers including, but not limited to, original, divisional, continuation, and reissue applications, renewals, assignments, powers of attorney, oaths, affidavits, and declarations, depositions; and (d) to provide all reasonable assistance to ASSIGNEE, its successors and assigns, in obtaining and enforcing proper title in and protection for said invention or inventions, improvements, and modifications under the intellectual property laws of the United States and countries foreign thereto.

ASSIGNOR HEREBY REPRESENTS AND WARRANTS that ASSIGNOR has the full and unencumbered right to sell, assign, and transfer the interests sold, assigned, and transferred herein, and that ASSIGNOR has not executed and will not execute any document or instrument in conflict herewith.

ASSIGNOR HEREBY GRANTS to the law firm of Foley & Lardner LLP the power and authority to insert in this Assignment any further identification which may be necessary or desirable to comply with the rules of the U.S. Patent and Trademark Office for recordation of this Assignment.

ASSIGNOR UNDERSTANDS AND AGREES that the attorneys and agents of the law firm of Foley & Lardner LLP do not personally represent ASSIGNOR OR ASSIGNOR's legal interests, but instead represent the interests of ASSIGNEE; since said attorneys and agents cannot provide legal advice to ASSIGNOR with respect to this Assignment, ASSIGNOR acknowledges its right to seek its own independent legal counsel.

Executed this 22 day of 4, 2016.

KEY T. BORENSTEIN

State of Massa chuse HS
County of Hiddlesex

on January 22 /2016 before me,

Here insert Name and Title of the Officer (Notary Public

personally appeared <u>JEFFREY T. BORENSTEIN</u>
Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/their executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signatur AMa M. My

LINDA M. NALIAR
Notary Public
Place Ni
COMMONWEALTH OF MASSACHUSETTS
My Commission Expires
July 21, 2017

Atty. Dkt. No. 102590-0475 (CSDL-2293)

Executed this 5th day of June 1/2016.

ERNEST KIM

State of Mussa Ause HS County of Middles of

On <u>January 5, 2016</u>, before me,

Here insert Name and Title of the Micer (Notary Public,

personally appeared <u>ERNEST KIM</u>
Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/their executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature

Signature of Notary Public/

LINDA M. NAJJAR
Notary Public
Plac
Celeration President of Massachusetts
My Commission Expires
July 21, 2017

On Janvary 5 2016, before me, Alba M. Najjel

Date Here insert Name and Title of the Officer (Notary Public)

personally appeared JOSEPH L. CHAREST Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/their executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY that the foregoing paragraph is true and correct.

LINDA M. NAJJAR Notary Public COMMONWEALTH OF MASSACHUSETTS AbiMycCommission Expires July 21, 2017

Atty, Dkt. No. 102590-0475 (CSDL-2293)

Executed this 2 day of Feb

On February 2, 2016, before me, Likele M. Natjar (Notary Public)

Here insert Name and Title of the Office (Notary Public)

personally appeared ALLA EPSHTEYN Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/their executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY that the foregoing paragraph is true and correct.

WITNESS my hand and official seal

Signature Signature of Notary Public

LINDA M. NALJAR Notary Public COMMONWEALTH OF MASSACHUSETTS eal Alify Commission Expires July 21, 2017

Atty. Dkt. No. 102590-0475 (CSDL-2293)

Executed this 21 day of 10001 2016.

On Les very 21, 2016 before me, Linu M Nujar (Notary Public)

Here insert Name and Title of the Officer (Notary Public)

personally appeared ABIGAIL SPENCER Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/their executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY that the foregoing paragraph is true and correct.

LINDA M. NAJJAR Notary Public SHADRINEALTH OF MASSACHUSETTS My Commission Expires July 21, 2017

Atty. Dkt. No. 102590-0475 (CSDL-2293)

Executed this 11 day of 10 works, 2016.

State of Massuchuse HS County of Massuchuse HS

On January 11, 2016, before me,

Here insert Name and Title of the **A**fficer (Notary Public)

personally appeared <u>JAMES TRUSLOW</u>
Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/their executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY that the foregoing paragraph is true and correct.

WITNESS my handland official seal.

Signature

Signature of Notary Public

LINDA M. NAJJAR

Notary Public

Place Notal

My Commonwealth or Massachusetts

My Commission Expires

July 21, 2017

RECORDED: 02/02/2016