

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT5276759

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
JONATHAN STEEN	11/10/2015
MIKHAIL KOZLOV	11/10/2015
HERBERT LUTZ	10/13/2015
JOSEPH PARRELLA	12/17/2015
ELIZABETH M. GOODRICH	10/13/2015
BALA RAGHUNATH	10/05/2015
RECEIVING PARTY DATA	
Name:	EMD MILLIPORE CORPORATION
Street Address:	400 SUMMIT DRIVE
City:	BURLINGTON
State/Country:	MASSACHUSETTS
Postal Code:	01803
PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	16208018
CORRESPONDENCE DATA	
Fax Number:	(978)341-0136
<i>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.</i>	
Phone:	978-341-0036
Email:	kellie.varno@hbsr.com
Correspondent Name:	ALICE O. CARROLL
Address Line 1:	530 VIRGINIA ROAD, P.O. BOX 9133
Address Line 2:	HAMILTON, BROOK, SMITH & REYNOLDS, P.C.
Address Line 4:	CONCORD, MASSACHUSETTS 01742-9133
ATTORNEY DOCKET NUMBER:	0046.2047-009
NAME OF SUBMITTER:	KELLIE J. VARNO
SIGNATURE:	/Kellie J. Varno/
DATE SIGNED:	12/11/2018

Total Attachments: 20

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Joint

ASSIGNMENT

WHEREAS, we, **Jonathan Steen, Mikhail Kozlov, Herbert Lutz, Joseph Parrella, Elizabeth M. Goodrich and Bala Raghunath**, have invented a certain improvement in **Single Pass Tangential Flow Filtration Systems And Tangential Flow Filtration Systems With Recirculation Of Retentate** described in an application for Patent,

- ☐ the specification of which is about to be filed in the United States Patent Office *(use for utility (37 CFR § 1.53(b)) and design filings only)*;
- ☐ is about to be filed in the United States Patent Office as a Provisional Application;
- ☒ the specification of which is United States Application No. **14/839,779**, filed **August 28, 2015**;
- ☒ the specification of which is a Patent Cooperation Treaty Application, International Application No. [], filed [], which designates the United States of America [and is assigned United States Application No.];
- ☐ which was patented under United States Patent No. [].

WHEREAS, **EMD Millipore Corporation** (hereinafter "ASSIGNEE"), a corporation organized and existing under the laws of the **Commonwealth of Massachusetts**, and having a usual place of business at **290 Concord Road, Concord, Massachusetts 01821** desires to confirm its interest therein in accordance with agreements duly entered into with us;

APCA/rd/
11/18/2016

NOW, THEREFORE, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged, we have sold, assigned and transferred and by these presents do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns and legal representatives, the entire right, title and interest in and throughout the United States of America, its territories and all foreign countries, in and to said invention as described in said application, together with the entire right, title and interest in and to said application and such Letters Patent as may issue on said invention; said invention, application and Letters Patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for which said Letters Patent may be granted as fully and entirely as the same would have been held by us had this assignment and sale not been made; we hereby convey all rights arising under or pursuant to any and all international agreements, treaties or laws relating to the protection of industrial property by filing any such applications for Letters Patent. We hereby acknowledge that this assignment, being of the entire right, title and interest in and to said invention, carries with it the right in ASSIGNEE to apply for any and all related provisional and nonprovisional, international and national phase applications, including any and all substitution, reissue, divisional, continuation, and continuation-in-part applications, and obtain from competent authorities in all countries of the world any and all Letters Patent by attorneys and agents of ASSIGNEE's selection and the right to procure the grant of all such Letters Patent to ASSIGNEE for its own name as assignee of the entire right, title and interest therein; we hereby expressly authorize the filing of an International Patent Application under the

Patent Cooperation Treaty which corresponds to and claims the priority of the above-identified application;

AND, we hereby further agree for ourselves and our executors and administrators to execute upon request any other lawful documents and likewise to perform any other lawful acts which may be deemed necessary to secure fully the aforesaid invention to said ASSIGNEE, its successors, assigns and legal representatives, but at its or their expense and charges, including the execution of applications for patents in foreign countries, and the execution of any future applications including substitution, reissue, divisional or continuation, continuation-in-part applications, and all related provisional and nonprovisional, international and national phase applications, and preliminary or other statements and the giving of testimony in any interference or other proceeding in which said invention or any application or patent directed thereto may be involved;

AND, we do hereby authorize and request each Patent Office and the Commissioner of Patents of the United States to issue such Letters Patent as shall be granted upon said invention to said ASSIGNEE, its successors, assigns, and legal representatives.

IN TESTIMONY WHEREOF, we have hereunto set our hands and affixed our seals the date set forth below.

Inventor's Signature: _____

Jonathan Steen

State/Commonwealth

of Massachusetts

County of Middlesex

On this 10th day of November 2015, before me, the undersigned notary public, personally appeared Jonathan Steen,

☐ personally known to me, or

☒ proved to me through satisfactory evidence of identification, which was

Massachusetts Driver's License

to be the person whose name was signed on the foregoing instrument in my presence, and acknowledged that he/she signed the foregoing instrument as his/her free act and deed.

(SEAL)

Notary Public

Anne M. Marchant (print name)

My Commission expires 11/28/19

Inventor's Signature: _____

Mikhail Kozlov

State/Commonwealth
of Massachusetts

County of Worcester

On this 10th day of November 2015, before me, the undersigned notary public, personally appeared Mikhail Kozlov,

☐ personally known to me, or

☒ proved to me through satisfactory evidence of identification, which was

Massachusetts Driver's License

to be the person whose name was signed on the foregoing instrument in my presence, and acknowledged that he/she signed the foregoing instrument as his/her free act and deed.

(SEAL)

Notary Public Annette M Marchant

Annette M Marchant (print name)

My Commission expires 11/28/2019

Inventor's Signature: _____

Herbert Lutz

State/Commonwealth
of _____

County of _____

On this _____ day of _____ 20____, before me, the undersigned notary public, personally appeared Herbert Lutz,

☐ personally known to me, or

☐ proved to me through satisfactory evidence of identification, which was

to be the person whose name was signed on the foregoing instrument in my presence, and acknowledged that he/she signed the foregoing instrument as his/her free act and deed.

(SEAL)

Notary Public _____

(print name)

My Commission expires ____/____/____

Inventor _____ Date _____

Joseph Parrella

Witness Signature _____

Print Witness Name _____

Address _____

Witness Signature _____

Print Witness Name _____

Address _____

Inventor's Signature: _____

Elizabeth M. Goodrich

State/Commonwealth

of _____

County of _____

On this _____ day of _____, 20____, before me, the undersigned notary public, personally appeared Elizabeth M. Goodrich,

☐ personally known to me, or

☐ proved to me through satisfactory evidence of identification, which was

to be the person whose name was signed on the foregoing instrument in my presence, and acknowledged that he/she signed the foregoing instrument as his/her free act and deed.

(SEAL)

Notary Public _____

_____(print name)

My Commission expires ____/____/____

Inventor _____ Date _____

Bala Raghunath

Witness Signature _____

Print Witness Name _____

Address _____

Witness Signature _____

Print Witness Name _____

Address _____

Joint

ASSIGNMENT

WHEREAS, we, **Jonathan Steen, Mikhail Kozlov, Herbert Lutz, Joseph Parrella, Elizabeth M. Goodrich and Bala Raghunath**, have invented a certain improvement in **Single Pass Tangential Flow Filtration Systems And Tangential Flow Filtration Systems With Recirculation Of Retentate** described in an application for Patent,

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- ☐ is about to be filed in the United States Patent Office as a Provisional Application;
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WHEREAS, **EMD Millipore Corporation** (hereinafter "ASSIGNEE"), a corporation organized and existing under the laws of the **Commonwealth of Massachusetts**, and having a usual place of business at **290 Concord Road, Concord, Massachusetts 01821** desires to confirm its interest therein in accordance with agreements duly entered into with us;

*Adenelf
1/8/2016*

NOW, THEREFORE, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged, we have sold, assigned and transferred and by these presents do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns and legal representatives, the entire right, title and interest in and throughout the United States of America, its territories and all foreign countries, in and to said invention as described in said application, together with the entire right, title and interest in and to said application and such Letters Patent as may issue on said invention; said invention, application and Letters Patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for which said Letters Patent may be granted as fully and entirely as the same would have been held by us had this assignment and sale not been made; we hereby convey all rights arising under or pursuant to any and all international agreements, treaties or laws relating to the protection of industrial property by filing any such applications for Letters Patent. We hereby acknowledge that this assignment, being of the entire right, title and interest in and to said invention, carries with it the right in ASSIGNEE to apply for any and all related provisional and nonprovisional, international and national phase applications, including any and all substitution, reissue, divisional, continuation, and continuation-in-part applications, and obtain from competent authorities in all countries of the world any and all Letters Patent by attorneys and agents of ASSIGNEE's selection and the right to procure the grant of all such Letters Patent to ASSIGNEE for its own name as assignee of the entire right, title and interest therein; we hereby expressly authorize the filing of an International Patent Application under the

Patent Cooperation Treaty which corresponds to and claims the priority of the above-identified application;

AND, we hereby further agree for ourselves and our executors and administrators to execute upon request any other lawful documents and likewise to perform any other lawful acts which may be deemed necessary to secure fully the aforesaid invention to said ASSIGNEE, its successors, assigns and legal representatives, but at its or their expense and charges, including the execution of applications for patents in foreign countries, and the execution of any future applications including substitution, reissue, divisional or continuation, continuation-in-part applications, and all related provisional and nonprovisional, international and national phase applications, and preliminary or other statements and the giving of testimony in any interference or other proceeding in which said invention or any application or patent directed thereto may be involved;

AND, we do hereby authorize and request each Patent Office and the Commissioner of Patents of the United States to issue such Letters Patent as shall be granted upon said invention to said ASSIGNEE, its successors, assigns, and legal representatives.

IN TESTIMONY WHEREOF, we have hereunto set our hands and affixed our seals the date set forth below.

Inventor's Signature: _____

Jonathan Steen

State/Commonwealth
of _____
County of _____

On this _____ day of _____ 20____, before me, the undersigned notary public, personally appeared Jonathan Steen,

☐ personally known to me, or

☐ proved to me through satisfactory evidence of identification, which was

to be the person whose name was signed on the foregoing instrument in my presence, and acknowledged that he/she signed the foregoing instrument as his/her free act and deed.

(SEAL)

Notary Public _____

(print name)

My Commission expires ____/____/____

Inventor's Signature: _____

Mikhail Kozlov

State/Commonwealth

of Massachusetts

County of Middlesex

On this 8 day of September 2015, before me, the undersigned notary public, personally appeared Mikhail Kozlov,

☒ personally known to me, or

☐ proved to me through satisfactory evidence of identification, which was

to be the person whose name was signed on the foregoing instrument in my presence, and acknowledged that he/she signed the foregoing instrument as his/her free act and deed.

(SEAL)



ELIZABETH D. HUBBARD
Notary Public
Commonwealth of Massachusetts
My Commission Expires
September 19, 2019

Notary Public E. D. Hubbard

Elizabeth D. Hubbard

(print name)

My Commission expires 09 / 19 / 2019

Inventor's Signature: _____

Herbert Lutz

State/Commonwealth

of Massachusetts

County of Middlesex

On this 13 day of October 2015, before me, the undersigned notary public, personally appeared Herbert Lutz,

☐ personally known to me, or

☒ proved to me through satisfactory evidence of identification, which was

Employee Identification

to be the person whose name was signed on the foregoing instrument in my presence, and acknowledged that he/she signed the foregoing instrument as his/her free act and deed.

(SEAL)



ELIZABETH D. HUBBARD
Notary Public
Commonwealth of Massachusetts
My Commission Expires
September 19, 2019

Notary Public E. D. Hubbard

Elizabeth D. Hubbard

(print name)

My Commission expires 09 / 19 / 2019

Inventor _____ Date _____
Joseph Parrella

Witness Signature _____

Print Witness Name _____

Address _____

Witness Signature _____

Print Witness Name _____

Address _____

Inventor's Signature: _____

Elizabeth M. Goodrich

State/Commonwealth
of Massachusetts
County of Middlesex

On this 13 day of October 2015, before me, the undersigned notary
public, personally appeared Elizabeth M. Goodrich,

☐ personally known to me, or

☒ proved to me through satisfactory evidence of identification, which was

Massachusetts Science

to be the person whose name was signed on the foregoing instrument in my presence, and
acknowledged that he/she signed the foregoing instrument as his/her free act and deed.

(SEAL)



ELIZABETH D. HUBBARD

Notary Public

Commonwealth of Massachusetts

My Commission Expires

September 19, 2019

Notary Public

Elizabeth D. Hubbard

(print name)

My Commission expires 09 / 19 / 2019

Inventor _____ Date _____
Bala Raghunath

Witness Signature _____

Print Witness Name _____

Address _____

Witness Signature _____

Print Witness Name _____

Address _____

JointASSIGNMENT

WHEREAS, we, **Jonathan Steen, Mikhail Kozlov, Herbert Lutz, Joseph Parrella, Elizabeth M. Goodrich and Bala Raghunath**, have invented a certain improvement in **Single Pass Tangential Flow Filtration Systems And Tangential Flow Filtration Systems With Recirculation Of Retentate** described in an application for Patent,

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ad. Carroll
11/8/2016

NOW, THEREFORE, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged, we have sold, assigned and transferred and by these presents do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns and legal representatives, the entire right, title and interest in and throughout the United States of America, its territories and all foreign countries, in and to said invention as described in said application, together with the entire right, title and interest in and to said application and such Letters Patent as may issue on said invention; said invention, application and Letters Patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for which said Letters Patent may be granted as fully and entirely as the same would have been held by us had this assignment and sale not been made; we hereby convey all rights arising under or pursuant to any and all international agreements, treaties or laws relating to the protection of industrial property by filing any such applications for Letters Patent. We hereby acknowledge that this assignment, being of the entire right, title and interest in and to said invention, carries with it the right in ASSIGNEE to apply for any and all related provisional and nonprovisional, international and national phase applications, including any and all substitution, reissue, divisional, continuation, and continuation-in-part applications, and obtain from competent authorities in all countries of the world any and all Letters Patent by attorneys and agents of ASSIGNEE's selection and the right to procure the grant of all such Letters Patent to ASSIGNEE for its own name as assignee of the entire right, title and interest therein; we hereby expressly authorize the filing of an International Patent Application under the

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IN TESTIMONY WHEREOF, we have hereunto set our hands and affixed our seals the date set forth below.

Inventor's Signature: _____

Jonathan Steen

State/Commonwealth
of _____
County of _____

On this _____ day of _____, 20____, before me, the undersigned notary public, personally appeared Jonathan Steen,

- ☐ personally known to me, or
☐ proved to me through satisfactory evidence of identification, which was

to be the person whose name was signed on the foregoing instrument in my presence, and acknowledged that he/she signed the foregoing instrument as his/her free act and deed.

(SEAL)

Notary Public _____
_____(print name)

My Commission expires ____/____/____

Inventor's Signature: _____

Mikhail Kozlov

State/Commonwealth
of _____
County of _____

On this _____ day of _____, 20____, before me, the undersigned notary
public, personally appeared Mikhail Kozlov,

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(SEAL)

Notary Public _____

(print name)

My Commission expires ____/____/____

Inventor's Signature: _____

Herbert Lutz

State/Commonwealth
of _____
County of _____

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(SEAL)

Notary Public _____

(print name)

My Commission expires ____/____/____

Inventor _____

Joseph Parrella

Date 17 DEC 2015

Witness Signature _____

Print Witness Name _____

Address _____

200 Willow Ave Unit 3, Somerville Ma
02144

Witness Signature _____

Print Witness Name _____

Address _____

Gina Kwong
195 Thomas Parkway Burgin Parkway, APT 410 Quincy, MA 02169

Inventor's Signature: _____

Elizabeth M. Goodrich

State/Commonwealth

of _____

County of _____

On this _____ day of _____, 20____, before me, the undersigned notary public, personally appeared Elizabeth M. Goodrich,

☐ personally known to me, or

☐ proved to me through satisfactory evidence of identification, which was

to be the person whose name was signed on the foregoing instrument in my presence, and acknowledged that he/she signed the foregoing instrument as his/her free act and deed.

(SEAL)

Notary Public _____

(print name)

My Commission expires ____/____/____

Inventor _____ Date _____

Bala Raghunath

Witness Signature _____

Print Witness Name _____

Address _____

Witness Signature _____

Print Witness Name _____

Address _____

JointASSIGNMENT

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ACCMG
1/8/2014

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Inventor's Signature: _____

Jonathan Steen

State/Commonwealth
of _____
County of _____

On this _____ day of _____, 20____, before me, the undersigned notary public, personally appeared Jonathan Steen,

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☐ proved to me through satisfactory evidence of identification, which was

to be the person whose name was signed on the foregoing instrument in my presence, and acknowledged that he/she signed the foregoing instrument as his/her free act and deed.

(SEAL)

Notary Public _____
_____(print name)

My Commission expires ____/____/____

Inventor's Signature: _____

Mikhail Kozlov

State/Commonwealth

of _____

County of _____

On this _____ day of _____, 20____, before me, the undersigned notary public, personally appeared Mikhail Kozlov,

☐ personally known to me, or

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(SEAL)

Notary Public _____

(print name)

My Commission expires ____/____/____

Inventor's Signature: _____

Herbert Lutz

State/Commonwealth

of _____

County of _____

On this _____ day of _____, 20____, before me, the undersigned notary public, personally appeared Herbert Lutz,

☐ personally known to me, or

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(SEAL)

Notary Public _____

(print name)

My Commission expires ____/____/____

Inventor _____ Date _____

Joseph Parrella

Witness Signature _____

Print Witness Name _____

Address _____

Witness Signature _____

Print Witness Name _____

Address _____

Inventor's Signature: _____

Elizabeth M. Goodrich

State/Commonwealth

of _____

County of _____

On this _____ day of _____, 20____, before me, the undersigned notary public, personally appeared Elizabeth M. Goodrich,

☐ personally known to me, or

☐ proved to me through satisfactory evidence of identification, which was

to be the person whose name was signed on the foregoing instrument in my presence, and acknowledged that he/she signed the foregoing instrument as his/her free act and deed.

(SEAL)

Notary Public _____

_____(print name)

My Commission expires ____/____/____

Inventor B. Raghunath Date Oct. 5, 2015
Bala Raghunath
Witness Signature Jim Neville
Print Witness Name Jim Neville
Address 900 Middlesex Rd, EHD Milpore
Billerica, MA 01821

Witness Signature Megan Tainer
Print Witness Name Megan Tainer
Address 900 Middlesex Turnpike, Billerica, MA 01821