

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT4763111

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT AND ASSUMPTION AGREEMENT OF SECURITY INTEREST RECORDED AT REEL/FRA ME NO. 038579/0950
CONVEYING PARTY DATA	
Name	Execution Date
OTSUKA HOLDINGS CO., LTD.	01/01/2018
RECEIVING PARTY DATA	
Name:	OTSUKA MEDICAL DEVICES CO., LTD.
Street Address:	2-9 KANDA TSUKASAMACHI
City:	CHIYODA-KU, TOKYO
State/Country:	JAPAN
Postal Code:	101-0048
PROPERTY NUMBERS Total: 27	
Property Type	Number
Patent Number:	6355030
Patent Number:	6599256
Patent Number:	6605084
Patent Number:	6635054
Patent Number:	6669655
Patent Number:	7083614
Patent Number:	7326201
Patent Number:	7540846
Patent Number:	8974445
Application Number:	10783310
Application Number:	13826645
Application Number:	13801369
Application Number:	14773285
Application Number:	13681311
Application Number:	14731347
Application Number:	13503109
Application Number:	13478825
Application Number:	12227508
Application Number:	14210007
Application Number:	14209948

PATENT

Property Type	Number
Application Number:	61814167
Application Number:	61784790
Application Number:	61784164
Application Number:	61292618
Application Number:	61256429
Application Number:	61204744
Application Number:	14000168

CORRESPONDENCE DATA

Fax Number:

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.

Email: TDinh@mofo.com

Correspondent Name: MORRISON & FOERSTER LLP

Address Line 1: 425 MARKET STREET

Address Line 4: SAN FRANCISCO, CALIFORNIA 94105

ATTORNEY DOCKET NUMBER: 72999-2

NAME OF SUBMITTER: TUAN DINH

SIGNATURE: /Tuan Dinh/

DATE SIGNED: 01/05/2018

Total Attachments: 9

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ASSIGNMENT AND ASSUMPTION AGREEMENT

THIS ASSIGNMENT AND ASSUMPTION AGREEMENT ("Assignment Agreement"), dated as of January 5, 2018 and effective as of January 1, 2018 (the "Effective Date"), is entered into by and between Otsuka Holdings Co., Ltd. ("Assignor") and Otsuka Medical Devices Co., Ltd. ("Assignee"), with respect to the assignment by Assignor and the assumption by Assignee of the Assigned Agreements (as defined below).

RECITALS

Pursuant to the terms of this Assignment Agreement, and in accordance with (i) Section 13(f) of that certain Security Agreement, dated as of May 12, 2016, as amended from time to time, by and between Recor Medical, Inc. ("Recor"), and the Assignor (the "Security Agreement") and (ii) that certain Patent and Trademark Security Agreement, dated as of May 12, 2016, as amended from time to time, by and between Recor and the Assignor (the "IP Security Agreement" and, collectively with the Security Agreement, the "Assigned Agreements"), Assignor desires to assign to Assignee, and Assignee desires to accept the assignment from Assignor of, all rights, duties, obligations, title and interest of Assignor in, to and under the Assigned Agreements.

AGREEMENT

NOW, THEREFORE, in consideration of the mutual promises and agreements set forth herein, the parties hereby agree as follows:

1. Assignment. As of the Effective Date, Assignor hereby transfers, conveys and assigns to Assignee all of Assignor's rights, duties, obligations, title and interest in, to and under the Assigned Agreements, including but not limited to any and all rights, title and interest in, to and under the patents, patent applications, marks, names and applications set forth on Schedule 1 (collectively, the "Collateral"), and Assignee hereby accepts the transfer, conveyance and assignment of such rights, duties, obligations, title and interest in, to and under the Assigned Agreements, including but not limited to any and all rights, title and interest in, to and under the Collateral.
2. Assumption. Assignee hereby agrees to assume, pay, perform and discharge, as and when due, all of the obligations and liabilities of Assignor under the Assigned Agreements, regardless of whether such obligations and liabilities arose before or after the Effective Date, and Assignee agrees to be bound by all of the terms and conditions of the Assigned Agreements.
3. Amendment. This Assignment Agreement may not be amended or altered except by a written instrument executed by Assignor and Assignee.
4. Successors and Assigns. This Assignment Agreement shall be binding upon and shall inure to the benefit of Assignor and Assignee and their respective successors and permitted assigns.
5. Counterparts. This Assignment Agreement may be executed in any number of counterparts and each counterpart shall represent a fully executed original as if signed by all parties.

Signatures delivered by facsimile transmission or in PDF or other electronic format shall be as effective as original signatures.

6. Governing Law. This Assignment Agreement shall be governed by and construed and interpreted in accordance with the laws of the State of Delaware.
7. Further Assurances. Each party shall execute and deliver such additional instruments, agreements, and documents and take such other actions as the other party may reasonably require in order carrying out the intent and purposes of this Assignment Agreement.
8. Severability. If any term or provision of this Assignment Agreement shall be held invalid or unenforceable, the remainder of this Assignment Agreement shall not be affected.
9. No Third Party Beneficiaries. This Assignment Agreement is solely for the benefit of Assignor and Assignee and their respective successors and permitted assigns and no right or cause of action shall accrue by reason hereof for the benefit of any third party not a party hereto.
10. No Amendment to Assigned Agreements. Nothing contained herein shall change, alter or otherwise amend the terms of the Assigned Agreements, which shall remain in full force and effect, subject to the assignment and assumption of the Assigned Agreements as set forth herein.

[REMAINDER OF PAGE LEFT INTENTIONALLY BLANK]

IN WITNESS WHEREOF, the parties hereto have caused this Assignment Agreement to be executed and delivered as of the day and year first written above.

ASSIGNOR:

OTSUKA HOLDINGS CO., LTD.

By: 小林 和道
Name: Kazumichi Kobayashi
Title: Senior Vice President

ASSIGNEE:

OTSUKA MEDICAL DEVICES CO., LTD.

By: Noriko Tojo
Name: Noriko Tojo
Title: President, Representative director

[Signature page – Assignment and Assumption Agreement]

Schedule 1**PATENTS AND PATENT APPLICATIONS**

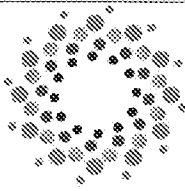
Application/Pub. No./Pat No.	Country	Entitled
App. # 09/161,079 Pat. # 6,355,030	US	Instruments and Methods Employing Thermal Energy for the Repair and Replacement of Cardiac Valves
App. # 09/659,068 Pub. # 2001/0045200 Pat. # 6,599,256	US	Occlusion of Tubular Anatomical Structures by Energy Application
App. # 09/691,825 Pat. # 6,669,655	US	Sonic Element and Catheter Incorporating Same
App. # 09/815,863 Pub. # 2002/0002371 Pat. # 6,605,084	US	Apparatus and Methods for Intrabody Thermal Treatment
App. # 2,399,570 Pat. # 2,399,570 C	CA	Apparatus and Methods for Intrabody Thermal Treatment
App. # 01918957.0 Pat. # EP 1265674 B1	EP	Apparatus and Methods for Intrabody Thermal Treatment
App. # 01918957.0 Pat. # EP 1265674 B1	FR	Apparatus and Methods for Intrabody Thermal Treatment
App. # 60135836D Pat. # EP 1265674 B1	DE	Apparatus and Methods for Intrabody Thermal Treatment
App. # 01918957.0 Pat. # EP 1265674 B1	GB	Apparatus and Methods for Intrabody Thermal Treatment
App. # 11/267,123 Pub. # 2006/0058711 Pat. # 7,540,846	US	Energy Application With Inflatable Annular Lens
App. # 2001273468 Pat. # 2001273468 B2	AU	Energy Application With Inflatable Annular Lens
App. # 2,415,671 Pat. # 2,415,671 C	CA	Energy Application With Inflatable Annular Lens
App. # 01812752.5 Pub. # 1441651 Pat. # 1239127 C	CN	Energy Application With Inflatable Annular Lens
App. # 01952746.4 Pat. # EP 1299038 B1	EP	Energy Application With Inflatable Annular Lens
App. # 01952746.4 Pat. # EP 1299038 B1	FR	Energy Application With Inflatable Annular Lens
App. # 01952746.4 Pat. # EP 1299038 B1	DE	Energy Application With Inflatable Annular Lens
App. # 01952746.4 Pat. # EP 1299038 B1	GB	Energy Application With Inflatable Annular Lens
App. # 11189579.3 Pub. # EP 2455015 A2	EP	Energy Application With Inflatable Annular Lens
App. # 11189581.9 Pub. # EP 2430998 A2	EP	Ultrasonic Emitter Configured to Receive a Liquid

Application/Pub. No./Pat No.	Country	Entitled
App. # 11189580.1 Pub. # EP 2430997 A2	EP	Ultrasonic Emitter With Reflective Interface
App. # 11189578.5 Pub. # EP 2430996 A2	EP	Energy-Emitting Catheter With Balloon
App. # 09/905,227 Pub. # 2002/0065512 Pat. # 6,635,054	US	Thermal Treatment Methods and Apparatus With Focused Energy Application
App. # 10/227,092 Pub. # 2003/0050632 Pat. # 7,083,614	US	Thermal Treatment Methods and Apparatus With Focused Energy Application
App. # 11/228,575 Pub. # 2006/0009753 Pat. # 7,326,201	US	Thermal Treatment Methods and Apparatus With Focused Energy Application
App. # 2001273471 Pub. # 2001273471 Pat. # 2001273471 B2	AU	Thermal Treatment Methods and Apparatus With Focused Energy Application
App. # 2,415,134 Pat. # 2,415,134 C	CA	Thermal Treatment Methods and Apparatus With Focused Energy Application
App. # 01815508.1 Pub. # 1455655 A Pat. # 1241658 C	CN	Thermal Treatment Methods and Apparatus With Focused Energy Application
App. # 01952750.6 Pat. # EP 1299035 B1	EP	Thermal Treatment Methods and Apparatus With Focused Energy Application
App. # 10010582.4 Pub. # EP 2275174 A2	EP	Thermal Treatment Methods and Apparatus With Ultrasound Energy Application
App. # 10010583.2 Pub. # EP 2275175 A2	EP	Thermal Treatment Methods and Apparatus With Ultrasound Energy Application
App. # 01952750.6 Pat. # EP 1299035 B1	FR	Thermal Treatment Methods and Apparatus With Focused Energy Application
App. # 01952750.6 Pat. # EP 1299035 B1	DE	Thermal Treatment Methods and Apparatus With Focused Energy Application
App. # 01952750.6 Pat. # EP 1299035 B1	GB	Thermal Treatment Methods and Apparatus With Focused Energy Application
App. # 2002-511799 Pat. # 4099388	JP	Thermal Treatment Methods and Apparatus With Focused Energy Application
App. # IN/PCT/2002/1585/KOL Pat. # 206728	IN	Thermal Treatment Methods and Apparatus With Focused Energy Application
App. # 13/478,825 Pub. # 2013/0072928	US	Intraluminal Method and Apparatus for Ablating Nerve Tissue
App. # 13/681,311 Pub. # 2013/0131668	US	Intraluminal Methods of Ablating Nerve Tissue
App. # 13/801,369 Pub. # 2013/0197555	US	Intraluminal Devices and Methods for Denervation
App. # 10/783,310 Pub. # 2004/0176757 Pat. # 7,837,676	US	Cardiac Ablation Devices
App. # 04713413.5	EP	Cardiac Ablation Devices

Application/Pub. No./Pat No.	Country	Entitled
Pub. # EP 1596746 A0		
App. # 2010-087782 Pub. # 2010-221038 A Pat. # 5073000 B2	JP	Cardiac Ablation Devices
App. # 12/227,508 Pub. # 2010/0130892	US	Ablation Device With Optimized Input Power Profile and Method of Using the Same
App. # 61/204,744	US	Treatment of Mitral Valve Insufficiency
App. # 12/684,067 Pub. # 2010/0179424 Pat. # 8,974,445	US	Methods and Apparatus For Treatment of Cardiac Valve Insufficiency
App. # PCT/US10/20333 Pub. # WO 2010/080886	PCT	Methods and Apparatus For Treatment of Mitral Valve Insufficiency
App. # 10729496.9 Pub. # EP 2376011 A0	EP	Methods and Apparatus For Treatment of Mitral Valve Insufficiency
App. # 61/256,429	US	Method and Apparatus For Treatment of Hypertension Through Ultrasound Renal Denervation
App. # 61/292,618	US	Method and Apparatus For Treatment of Hypertension Through Ultrasound Renal Denervation
App. # 13/503,109 Pub. # 2012/0232436	US	Method and Apparatus For Treatment of Hypertension Through Percutaneous Ultrasound Renal Denervation
App. # 13/826,645 Pub. # 2014/0031727	US	Method and Apparatus For Treatment of Hypertension Through Percutaneous Ultrasound Renal Denervation
App. # 14/731,347 Pub. # 2015/0290427	US	Method and Apparatus For Treatment of Hypertension Through Percutaneous Ultrasound Renal Denervation
App. # PCT/US10/54637 Pub. # WO 2011/053757	PCT	Method and Apparatus For Treatment of Hypertension Through Percutaneous Ultrasound Renal Denervation
App. # 2010313379 Pub. # 2010313379 A1 Pat. # 2010313379 B2	AU	Method and Apparatus For Treatment of Hypertension Through Percutaneous Ultrasound Renal Denervation
App. # 2016200432	AU	Method and Apparatus For Treatment of Hypertension Through Percutaneous Ultrasound Renal Denervation
App. # 2,779,386 Pub. # 2,779,386	CA	Method and Apparatus For Treatment of Hypertension Through Percutaneous Ultrasound Renal Denervation
App. # 201080049201.0	CN	Method and Apparatus For Treatment of Hypertension Through Percutaneous Ultrasound Renal Denervation
App. # 10776878.0 Pub. # EP 2493569 A0 Pat. # EP 2493569 B1	EP	Method and Apparatus For Treatment of Hypertension Through Percutaneous Ultrasound Renal Denervation
App. # 15182333.3 Pub. # EP 2995350 A1	EP	Method and Apparatus For Treatment of Hypertension Through Percutaneous Ultrasound Renal Denervation
App. # 10776878.0 Pat. # EP 2493569 B1	FR	Method and Apparatus For Treatment of Hypertension Through Percutaneous Ultrasound Renal Denervation
App. # 302010027916.2 Pat. # EP 2493569 B1	DE	Method and Apparatus For Treatment of Hypertension Through Percutaneous Ultrasound Renal Denervation
App. # 10776878.0 Pat. # EP 2493569 B1	UK	Method and Apparatus For Treatment of Hypertension Through Percutaneous Ultrasound Renal Denervation

Application/Pub. No./Pat No.	Country	Entitled
App. # 2012-537097 Pat. # 5768056 B2	JP	Method and Apparatus For Treatment of Hypertension Through Percutaneous Ultrasound Renal Denervation
App. # 2014-255602	JP	Method and Apparatus For Treatment of Hypertension Through Percutaneous Ultrasound Renal Denervation
App. # 1256/MUMNP/2012	IN	Method and Apparatus For Treatment of Hypertension Through Percutaneous Ultrasound Renal Denervation
App. # 10-2012-7013496	KR	Method and Apparatus For Treatment of Hypertension Through Percutaneous Ultrasound Renal Denervation
App. # PCT/US11/025543 Pub. # WO 2012/112165	PCT	Apparatus For Effecting Renal Denervation Using Ultrasound
App. # 14/000,168 Pub. # 2014/0163540	US	Apparatus For Effecting Renal Denervation Using Ultrasound
App. # 11709820.2 Pub. # EP 2675525 A0	EP	Apparatus For Effecting Renal Denervation Using Ultrasound
App. # 2013-554427 Pub. # 2014-512882	JP	Apparatus For Effecting Renal Denervation Using Ultrasound
App. # 227958 Pub. # 227958	IL	Apparatus For Effecting Renal Denervation Using Ultrasound
App. # 61/784,164	US	Methods of Plating or Coating Ultrasound Transducers
App. # 14/210,007 Pub. # 2014/0272110	US	Methods of Plating or Coating Ultrasound Transducers
App. # PCT/US14/22796 Pub. # WO 2014/159273	PCT	Methods of Plating or Coating Ultrasound Transducers
App. # 201480013826.X	CN	Methods of Plating or Coating Ultrasound Transducers
App. # 14721031.4 Pub. # EP 2971232 A0	EP	Methods of Plating or Coating Ultrasound Transducers
App. # 2016-501070	JP	Methods of Plating or Coating Ultrasound Transducers
App. # 61/784,790	US	Ultrasound-Based Neuromodulation System
App. # 61/814,167	US	Ultrasound-Based Neuromodulation System
App. # 14/209,948 Pub. # 2014/0277033	US	Ultrasound-Based Neuromodulation System
App. # 14/773,285 Pub. # 2016/0016016	US	Ultrasound-Based Neuromodulation System
App. # PCT/US14/22804 Pub. # WO 2014/159276	PCT	Ultrasound-Based Neuromodulation System
App. # 201480020963.6	CN	Ultrasound-Based Neuromodulation System
App. # 14775754.6 Pub. # EP 2968984 A0	EP	Ultrasound-Based Neuromodulation System
App. # 2016-501074	JP	Ultrasound-Based Neuromodulation System

TRADEMARKS AND TRADEMARK APPLICATIONS

Country	Mark	Filing Date/ Issuance Date	Reg. No. or Ser. No.	Class/Goods
U.S.		August 5, 2013	Serial No. 86/029311	Class 10: Energy emitting catheter-based devices for medical procedures in the nature of denervation; Ultrasound-emitting catheters used to perform denervation.
U.S.	PARADISE	October, 13, 2015	Registration No. 4829591	Class 10: Ultrasound-emitting catheter used to perform denervation in arteries of human beings.
U.S.	RADIANCE	April 4, 2016	Serial No. 86/963754	Class 10: Medical devices for treating hypertension; medical devices used to perform renal denervation.
U.S.	RECOR MEDICAL	April 4, 2016	Serial No. 86/963863	Class 10: Medical devices for treating hypertension; medical devices used to perform denervation.
Australia	PARADISE	May 31, 2012	Registration No. 1468636	Class 10: Ultrasound-emitting catheter used to perform denervation in arteries of human beings; energy emitting catheter-based devices for medical procedures.
Canada	PARADISE	January 9, 2012	Application No. 1558993	Class 10: Ultrasound-emitting catheter used to perform denervation in arteries of human beings. Energy emitting catheter-based devices for intraluminal ablative medical procedures.
European Union	PARADISE	December 15, 2011	Registration No. 10118164	Class 10: Ultrasound-emitting catheter used to perform denervation in arteries of human beings.

Country	Mark	Filing Date/ Issuance Date	Reg. No. or Ser. No.	Class/Goods
New Zealand	PARADISE	July 10, 2012	Registration No. 854833	Class 10: Ultrasound-emitting catheter used to perform denervation in arteries of human beings; energy emitting catheter-based devices for medical procedures.