

<b>PATENT ASSIGNMENT COVER SHEET</b>
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Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT5332573

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT

**CONVEYING PARTY DATA**

Name	Execution Date
NAOMI BUCKLEY	12/12/2011
BENJAMIN J. CLARK	12/02/2011
MICHAEL CUMMINS	12/12/2011
DANNY DONOVAN	12/13/2011
LUKE HUGHES	12/08/2011
BRIAN KELLY	12/12/2011
GARY KELLY	12/07/2011
GRACE KELLY	12/12/2011
JOHN KELLY	12/07/2011
GWENDA MCMULLIN	12/08/2011
KARUN D. NAGA	11/29/2011
STEPHEN NASH	12/07/2011
ERIC RYBA	11/29/2011
FIACHRA SWEENEY	12/11/2011
VINCENZO TILOTTA	12/08/2011
ROMAN TUROVSKIY	12/02/2011
LANA WOOLLEY	12/07/2011
DENISE ZARINS	11/29/2011
MARK GELFAND	12/16/2011
MARK S. LEUNG	12/07/2011
BARRY MULLINS	01/05/2012
MICHAEL TUROVSKIY	01/25/2012

**RECEIVING PARTY DATA**

<b>Name:</b>	MEDTRONIC ARDIAN LUXEMBOURG S.A.R.L.
<b>Street Address:</b>	102 RUE DES MARAICHERS
<b>City:</b>	LUXEMBOURG
<b>State/Country:</b>	LUXEMBOURG
<b>Postal Code:</b>	L2124

**PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	16221174

**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:** rs.vasciption@medtronic.com  
**Correspondent Name:** MEDTRONIC VASCULAR, INC.  
**Address Line 1:** 3576 UNOCAL PLACE  
**Address Line 4:** SANTA ROSA, CALIFORNIA 95403

<b>ATTORNEY DOCKET NUMBER:</b>	P0041118.US01CON
<b>NAME OF SUBMITTER:</b>	ALANA T. BERGMAN
<b>SIGNATURE:</b>	/Alana T. Bergman/
<b>DATE SIGNED:</b>	01/18/2019

**Total Attachments: 23**

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## ASSIGNMENT

WHEREAS, we, **NAOMI BUCKLEY; BENJAMIN J. CLARK; MICHAEL CUMMINS; DANNY DONOVAN; LUKE HUGHES; BRIAN KELLY; GARY KELLY; GRACE KELLY; JOHN KELLY; GWENDA MCMULLIN; KARUN D. NAGA; STEPHEN NASH; ERIC RYBA; FIACHRA SWEENEY; VICENZO TILOTTA; ROMAN TUROVSKIY; LANA WOOLLEY; DENISE ZARINS; MARK GELFAND; MARK S. LEUNG; BARRY MULLINS;** and **MICHAEL TUROVSKIY**, are the inventors of "**NEUROMODULATION CRYOTHERAPEUTIC DEVICES AND ASSOCIATED SYSTEMS AND METHODS**", filed on **October 23, 2011**, U.S. Application, Serial No. **13/279,326** executed by the undersigned on the dates written below; and

WHEREAS, **MEDTRONIC ARDIAN LUXEMBOURG S.a.r.l.** having a place of business at 102 rue des Maraichers, Luxembourg, Luxembourg L2124 hereinafter referred to as "ASSIGNEE," is desirous of acquiring the entire right, title and interest in and to said invention for the United States and for all foreign countries and in and to any and all foreign and domestic Letters Patent which may be granted therefor;

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, we have sold, assigned, transferred and set over and by these presents do sell, assign, transfer and set over unto ASSIGNEE, its successors and assigns, the entire right, title and interest in and to said invention and the entire right, title and interest in and to any and all Letters Patent of the United States and any foreign countries which may be granted therefor including our rights under the International Convention for the Protection of Industrial Property, and in and to any and all extensions, divisions, continuations, continuations-in-part or reissues of said Letters Patent that may be granted, the same to be held and enjoyed by ASSIGNEE for its own use and behoof and use and behoof of its successors and assigns 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 and enjoyed by us had this assignment and sale not been made;

AND, for the consideration aforesaid, we materially represent to ASSIGNEE, its successors and assigns, that at the time of the execution and delivery of these presents, we are the sole lawful owners of the entire right, title and interest in and to the invention, application and Letters Patent above mentioned, and that the same are unencumbered, and that we have good right and lawful authority to sell and convey the same in the manner herein set forth;

AND, for the consideration aforesaid, we hereby individually covenant and agree to and with ASSIGNEE, its successors and assigns, that whenever its counsel or the counsel of its successors or assigns, learned in the law, shall advise that an amendment or division of, or continuation or any continuation-in-part thereof, or any other proceeding in connection with the filing or prosecution of said domestic or foreign patent applications, including interference proceedings, is lawful and desirable, or that a reissue of extension of said Letters Patent is lawful and desirable, we, or our executors, administrators or assigns will sign all papers and drawings, take all rightful oaths, and do all acts necessary or required to be done for the procurement of valid Letters Patent for said invention, or for the reissue or extension of the same, without charge to ASSIGNEE, its successors or assigns, but at ASSIGNEE'S expense.

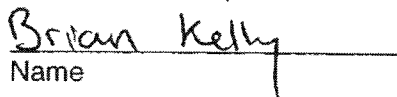
We hereby request the Honorable Commissioner of Patents and Trademarks to issue the Letters Patent to Corporation in accordance with this instrument.

IN WITNESS WHEREOF, I have hereunto set my hand on this 18 day of DEC, 2011.

  
NAOMI BUCKLEY

WITNESS BY:

  
Signature

  
Name

IN WITNESS WHEREOF, I have hereunto set my hand on this 2 day of Dec, 2011.

*Ben J. Clark*  
BENJAMIN J. CLARK

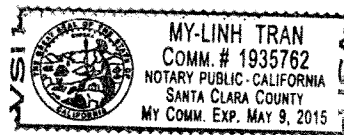
State of california

County of santa clara

On 12/2/2011 before me, My-Linh Tran, Notary Public, personally appeared **BENJAMIN J. CLARK**, who proved to me on the basis of satisfactory evidence to be the person~~s~~ whose names~~s~~ is are subscribed to the within instrument and acknowledged to me that he/she/they 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 under the laws of the State of california that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.



Signature *My-Linh Tran* (Seal)

IN WITNESS WHEREOF, I have hereunto set my hand on this 12<sup>th</sup> day of Dec, 2011.

Michael C  
MICHAEL CUMMINS

WITNESS BY: John Geraghty  
Signature  
JOHN GERAGHTY  
Name

IN WITNESS WHEREOF, I have hereunto set my hand on this 13 day of Dec, 2011.

  
\_\_\_\_\_  
**DANNY DONOVAN**

WITNESS BY: Michael C  
Signature  
Michael Cummins  
Name

IN WITNESS WHEREOF, I have hereunto set my hand on this 8<sup>th</sup> day of Dec., 2011.


  
LUKE HUGHES

WITNESS BY:   
Signature

ORLA CURRAN  
Name



IN WITNESS WHEREOF, I have hereunto set my hand on this 12 day of Dec, 2011.

  
\_\_\_\_\_  
BRIAN KELLY

WITNESS BY: Naomi Buckley  
Signature  
NAOMI BUCKLEY  
Name

IN WITNESS WHEREOF, I have hereunto set my hand on this 7 day of 12, 2011.

  
\_\_\_\_\_  
**GARY KELLY**

State of California

County of Sonoma

On 12-7-11 before me, Janene L. Leighton, Notary Public, personally appeared **GARY KELLY**, who proved to me on the basis of satisfactory evidence to be the person(s) whose names(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they 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.

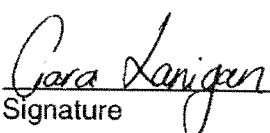
I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

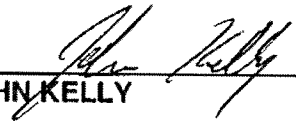
Signature Janene L. Leighton (Seal)

IN WITNESS WHEREOF, I have hereunto set my hand on this 12 day of Dec, 2011.

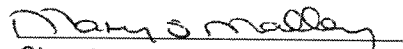
  
\_\_\_\_\_  
GRACE KELLY

WITNESS BY:   
Signature  
CIARA LANIGAN  
Name

IN WITNESS WHEREOF, I have hereunto set my hand on this 7<sup>th</sup> day of DEC, 2011.

  
\_\_\_\_\_  
JOHN KELLY

WITNESS BY:

  
\_\_\_\_\_  
Signature

MARY O MALLEY  
\_\_\_\_\_  
Name

IN WITNESS WHEREOF, I have hereunto set my hand on this 8<sup>th</sup> day of Dec, 2011.

Gwenda McMullin  
GWENDA MCMULLIN

WITNESS BY:

Lana Woolley  
Signature

Lana Woolley  
Name

IN WITNESS WHEREOF, I have hereunto set my hand on this 29<sup>th</sup> day of November, 2011.

[Signature]  
KARUN D. NAGA

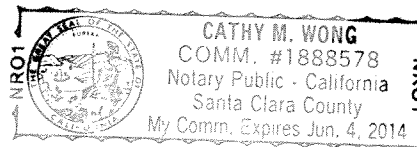
State of CALIFORNIA

County of SANTA CLARA

On November 29 2011 before me, Cathy M. Wong, Notary Public, personally appeared **KARUN D. NAGA**, who proved to me on the basis of satisfactory evidence to be the person(s) whose names(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they 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 under the laws of the State of CALIFORNIA that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.



Signature [Signature] (Seal)

IN WITNESS WHEREOF, I have hereunto set my hand on this 7<sup>th</sup> day of Dec, 2011.

Stephen Nash  
STEPHEN NASH

WITNESS BY:

Mary O Malley  
Signature

MARY O MALLEY  
Name

IN WITNESS WHEREOF, I have hereunto set my hand on this 29<sup>th</sup> day of Nov, 2011.

Eric Ryba  
ERIC RYBA

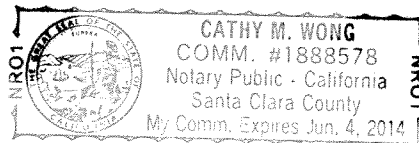
State of CALIFORNIA

County of SANTA CLARA

On November 29, 2011 before me, Cathy M. Wong, Notary Public, personally appeared **ERIC RYBA**, who proved to me on the basis of satisfactory evidence to be the person(s) whose names(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they 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 under the laws of the State of CALIFORNIA that the foregoing paragraph is true and correct.

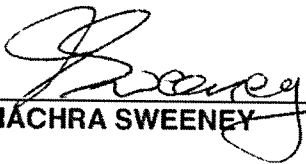
WITNESS my hand and official seal.



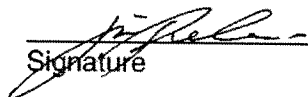
Signature Cathy M. Wong (Seal)



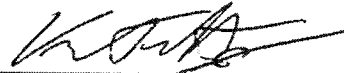
IN WITNESS WHEREOF, I have hereunto set my hand on this 11 day of Dec, 2011.

  
FIACHRA SWEENEY

WITNESS BY:

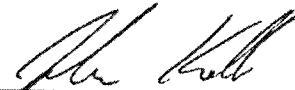
  
Signature  
Jim PHELAN  
Name

IN WITNESS WHEREOF, I have hereunto set my hand on this 8<sup>th</sup> day of DEC, 2011.

  
\_\_\_\_\_  
VICENZO TILOTTA  
VINCENZO

VT  
8TH DEC 2011

WITNESS BY:

  
\_\_\_\_\_  
Signature

JOHN KELLY  
\_\_\_\_\_  
Name

IN WITNESS WHEREOF, I have hereunto set my hand on this 2 day of Dec, 2011.

  
ROMAN TUROVSKIY

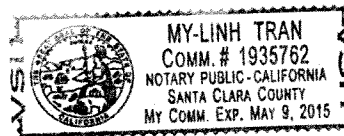
State of california

County of santa clara

On 12/2/2011 before me, My-Linh Tran, Notary Public, personally appeared **ROMAN TUROVSKIY**, who proved to me on the basis of satisfactory evidence to be the person~~s~~ whose names~~s~~   are subscribed to the within instrument and acknowledged to me that   he/she/they executed the same in   his/her/their authorized capacity~~s~~, 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 under the laws of the State of california that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.



Signature  (Seal)

IN WITNESS WHEREOF, I have hereunto set my hand on this 7th day of Dec, 2011.

Lana Woolley  
LANA WOOLLEY

WITNESS BY: Ronan Wood  
Signature

Ronan Wood  
Name

IN WITNESS WHEREOF, I have hereunto set my hand on this 29<sup>th</sup> day of November, 2011.

*Denise Zarins*  
DENISE ZARINS

State of CALIFORNIA

County of SANTA CLARA

On November 29, 2011 before me, CATHY M. WONG, Notary Public, personally appeared **DENISE ZARINS**, who proved to me on the basis of satisfactory evidence to be the person(s) whose names(s) is are subscribed to the within instrument and acknowledged to me that he/she/they 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.

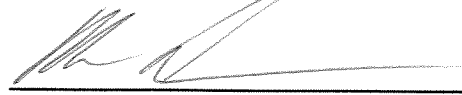
I certify under PENALTY OF PERJURY under the laws of the State of CALIFORNIA that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.



Signature *Cathy Wong* (Seal)

IN WITNESS WHEREOF, I have hereunto set my hand on this \_\_\_\_ day of \_\_\_\_\_, 2011.

  
MARK GELFAND

State of New York

County of New York

On 16th Dec, 2011 before me, RAYMOND FUNG, Notary Public, personally appeared **MARK GELFAND**, who proved to me on the basis of satisfactory evidence to be the person(s) whose names(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they 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 under the laws of the State of New York that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature Raymond Fung (Seal)

Raymond Fung  
Notary Public State of New York  
No. 01FU6187447  
Qualified in New York County  
Commission Expires May 19, 2012

IN WITNESS WHEREOF, I have hereunto set my hand on this 7 day of Dec, 2011.

MARK S. LEUNG



WITNESS BY:

  
Signature

Michelle Hollington  
Name

IN WITNESS WHEREOF, I have hereunto set my hand on this 5<sup>th</sup> day of January ~~2011~~,  
2012

  
\_\_\_\_\_  
BARRY MULLINS

WITNESS BY:

  
\_\_\_\_\_  
Signature

GAIN TAYLOR  
\_\_\_\_\_  
Name



IN WITNESS WHEREOF, I have hereunto set my hand on this 25 day of January, <sup>2012</sup>~~2011~~.

  
MICHAEL TUROVSKIY

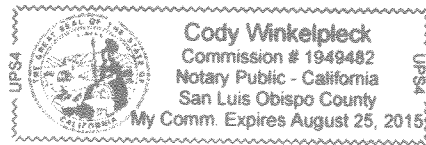
State of California

County of San Luis Obispo

On January 25, 2012 before me, Cody Winkelpleck, Notary Public, personally appeared **MICHAEL TUROVSKIY**, who proved to me on the basis of satisfactory evidence to be the person~~(s)~~ whose names~~(s)~~ is/~~are~~ subscribed to the within instrument and acknowledged to me that he/~~she~~/~~they~~ 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 under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.



Signature  (Seal)