

## PATENT ASSIGNMENT COVER SHEET

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<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
VINCENT KU	11/29/2011
ROBERT BEETEL	11/29/2011
ANDREW WU	11/29/2011
DENISE ZARINS	11/29/2011
MARIA G. ABOYTES	12/02/2011
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	MEDTRONIC ARDIAN LUXEMBOURG S.A.R.L.
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<b>City:</b>	LUXEMBOURG
<b>State/Country:</b>	LUXEMBOURG
<b>Postal Code:</b>	L2124
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	15934851
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	
<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>	
<b>Phone:</b>	707-566-1375
<b>Email:</b>	rs.vasciplegal@medtronic.com
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<b>ATTORNEY DOCKET NUMBER:</b>	P0041121.USC90
<b>NAME OF SUBMITTER:</b>	JEFFIE A. KOPCZYNSKI
<b>SIGNATURE:</b>	/Jeffie A. Kopczynski/
<b>DATE SIGNED:</b>	03/23/2018
<b>Total Attachments: 6</b>	
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## **ASSIGNMENT**

WHEREAS, we, **VINCENT KU; ROBERT J. BEETEL; ANDREW WU; DENISE ZARINS; and MARIA G. ABOYTES**, are the inventors of "**CATHETER APPARATUSES HAVING MULTI-ELECTRODE ARRAYS FOR RENAL NEUROMODULATION AND ASSOCIATED SYSTEMS AND METHODS**", filed on **October 25, 2011**, U.S. Application, Serial No. **13/281,360** 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 29 day of November, 2011.

  
VINCENT KU

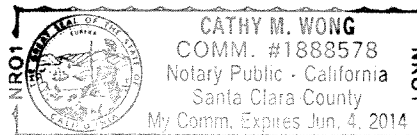
State of California

County of SANTA CLARA

On NOVEMBER 29, 2011 before me, Cathy M. Wong, Notary Public, personally appeared **VINCENT KU**, 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)

IN WITNESS WHEREOF, I have hereunto set my hand on this 29 day of November 2011.

  
 ROBERT BEETEL

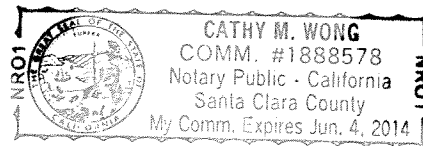
State of California

County of SANTA CLARA

On November 29, 2011 before me, Cathy M. Wong, Notary Public, personally appeared **ROBERT BEETEL**, 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)

IN WITNESS WHEREOF, I have hereunto set my hand on this 29 day of Nov, 2011.

  
 \_\_\_\_\_  
 ANDREW WU

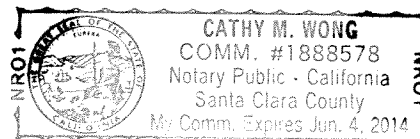
State of California

County of Santa Clara

On November 29, 2011 before me, Cathy M. Wong, Notary Public, personally appeared **ANDREW WU**, 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)

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

Denise Zarins  
DENISE ZARINS

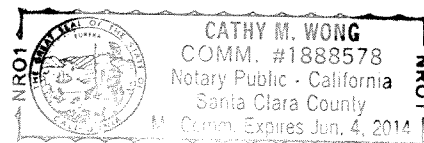
State of California

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 2 day of December, 2011.

M. G. Aboytes  
**MARIA G. ABOYTES**

State of california

County of santa clara

On 12/2/2011 before me, My-Linh Tran, Notary Public, personally appeared **MARIA G. ABOYTES**, who proved to me on the basis of satisfactory evidence to be the person~~(s)~~ whose names~~(s)~~ (s) are subscribed to the within instrument and acknowledged to me that he~~(s)~~/she~~(s)~~/they executed the same in his~~(s)~~/her~~(s)~~/their authorized capacity~~(ies)~~ (s), and that by his~~(s)~~/her~~(s)~~/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)

