PATENT ASSIGNMENT

Electronic Version v1.1

Stylesheet Version v1.1

SUBMISSION TYPE:		NEW ASSIGNMENT			
NATURE OF CONVE	URE OF CONVEYANCE: ASSIGNMENT				
CONVEYING PARTY	DATA	·			
		Name	Execution Date		
Rahul Gupta			01/23/2013		
Steven M. Goetz			01/23/2013		
Maciej T. Lazarewicz			01/23/2013		
Gabriela C. Molnar			01/23/2013		
Dwight E. Nelson			01/23/2013		
Jianping Wu			01/23/2013		
RECEIVING PARTY D	ΑΤΑ				
Name:	Medtronic, Inc.				
Street Address:	710 Medtronic F	arkway NE			
Internal Address:	LC340				
City:	Minneapolis				
State/Country:	MINNESOTA				
Postal Code:	55432	55432			
PROPERTY NUMBER	S Total: 1				
Property Ty	/pe	Numt	ber		
Application Number:	13	748633			
CORRESPONDENCE	DATA				
Fax Number:	763526837	8			
-		il when the fax attempt is unsuccess	sful.		
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ATTORNEY DOCKET	NUMBER:	C00002939.USU3/LG10137			
502205442			PATENT REEL: 029683 FRAME: 0539		

NAME OF SUBMITTER:

Beth L. McMahon

Total Attachments: 8
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ASSIGNMENT OF APPLICATION(S)

Whereas I/we, the below named inventor(s), with residence and citizenship as indicated below, have made an invention in

	ELECTRICAL STIMULATION PROGRAMMING
\boxtimes	for which an application for a United States Patent or a U.S. Provisional Application is being filed contemporaneously herewith;
	for which an application for a United States Patent identified as U.S. Patent Application No. ; was filed on ;
	for which an application for a U.S. Provisional Application No. ; was filed on ;
\boxtimes	for which above application claims priority to U.S. Provisional Patent Application No. 61/622,505; filed on April 10, 2012; and U.S. Provisional Patent Application No. 61/639,606; filed on April 27, 2012;
	which application is identified as PCT International Patent Application No. ; filed ;

Whereas, <u>Medtronic, Inc.</u>, a corporation organized and existing under the laws of the State of Minnesota and having a principle place of business at <u>710 Medtronic Parkway N.E.</u>, <u>Minneapolis</u>, <u>Minnesota 55432-5604</u>, hereinafter referred to as "Corporation," 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 therefore;

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 Corporation, its successors and assigns, the entire right, title and interest in and to said invention and the application(s) identified above and in and to any application claiming benefit thereto 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 therefore 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 Corporation for its own use and benefit and use and benefit 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 me had this assignment and sale not been made, including the right to enforce such Letters Patent as fully and entirely as the same would have been held and enjoyed by me had this assignment for damages by reason of past infringement or for provisional rights and including the right to sue for, and collect the same for its own use and benefit, and for the use and benefit of its successors, assigns, and other legal representatives;

AND, for the consideration aforesaid, we materially represent to Corporation, 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 Corporation, 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

Assignment

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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 Corporation, its successors or assigns, but at Corporation's expense.

I/We do hereby authorize and request the Commissioner of Patents to issue any and all Letters Patent which may be granted upon any of the said applications, to said Medtronic, Inc., as the assignee of the entire right, title, and interest therein.

In witness whereof, I/we have signed my/our name(s) on the day and year set fo	th below:		
	ame or Surname (last name):			
Rahul Gupta				
Inventor's Signature	Date: $01/23/2$	013		
Residence (City and State):	Country:	Citizenship:		
St. Louis Park, MN	USA	IN		
STATE OF MINNESOTA)) ss. COUNTY OF ANOKA) On this <u>23</u> day of <u>JAMAAY</u> , <u>203</u> , before me personally appeared the above-named , and who executed the foregoing instrument, as said person's free act and deed, on the day and year aforesaid.				
(Seal) (Seal)				

Given Name (first and middle initial [if any]):	Goetz	Name or Sumame (last nan	ne):
Inventor's Signature	, MS	Date: $1/2-3/1$	3
Residence (City and State): North Oaks, MN		Country: USA	Citizenship: US
STATE OF MINNESOTA)) ss. COUNTY OF ANOKA) On this 230 day of <u>1000000</u> and who executed the foregoing instrument, a	Jug s saiù person'	$\frac{2013}{5}$, before me p s free act and deed, on the c	personally appeared the above-named , day and year aforesaid.
(Seal) (Seal) MY COMMISSION EXF JANUARY 31, 201	iesota Vires	Notary Public	Krum

₿,

Page 2 of 4 Medtronic, Inc., 710 Medtronic Parkway, Minneapolis, MN 55432 Attorney Docket No.: C00002939.USU3

Given Name (first and middle initial [if any]): Maclej T.	Family N Lazarewi	ame or Surname (last lez	name):		
Inventor's Signature:		Date:			
Residence (City and State): Maple Grove, MN		Country: USA	Citizenship: PL		
STATE OF MINNESOTA)) 85. COUNTY OF ANOKA)					
On this day of and who executed the foregoing instrument, as sa	id person's l	, before n free act and deed, on t	ne personally appeared the above-named , he day and year aforesaid.	.,	
(Seal)		Notary Public			
Given Name (first and middle initial [if any]): Gabriela C.	Family N Molnar	ame or Sumame (last	name):		
Inventor's Signature: Matrila C. Mohan		Date: January 2	<u>3, 2013</u> Citizenship:		
Residence (City and State): Fridley, MN		Country: USA	Citizenship: AR		
STATE OF MINNESOTA)) 55. COUNTY OF ANOKA)					
On this 22^{4} day of $1/1/1/1/1$ and who executed the foregoing instrument, as sa	ly Id person's :	, before r free act and deed, on t	ne personally appeared the above-named , the day and year aforesaid.	3,	
(Seal) (Seal) (Seal) (Seal) (Seal) (Seal) (Seal) (Seal) (Seal) (Seal) (Seal) (Seal) (Seal) (Seal) (Seal) (Seal) (Seal)	TA N	Notary Public	\times		
Given Name (first and middle initial [if any]): Family Name or Surname (last name):					
Dwight E. Inventor's Signature:	Nelson	Date: Z/23			
Residence (City and State): Shoreview, MN		Country: USA	Citizenship: US		
STATE OF MINNESOTA)) 55.					
COUNTY OF ANOKA) On this 230 day of JAMAM, 2013 before me personally appeared the above-named, and who executed the foregoing instrument, as said person's free act and deed, on the day and year aforesaid.					
(Seal) KARLA K. WEIS NOTARY PUBLIC - MINNESOTA MY COMMISSION EXPIRES JANUARY 31, 2015		Notary Public	Anin		

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Attorney Docket No.: C00002939.USU3

Given Name (first and middle initial [if any]): Jianping	Family Name or Surname (1 Wu	ast name):
Inventor's Signature:	Date:	23 rd Jan 2013
Residence (City and State): Shoreview, MN	Country: USA	Citizenship: CA
STATE OF MINNESOTA)) 55. COUNTY OF ANOKA) On this $23^{\prime 2}$ day of <u>Savua</u> and who executed the foregoing instrument, as s	aid person's free act and deed, c	re me personally appeared the above-named , m the day and year aforesaid.
(Scal) (S	Sandra	de Weby

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Attorney Docket No.: C00002939.USU3

ASSIGNMENT OF APPLICATION(S)

Whereas I/we, the below named inventor(s), with residence and citizenship as indicated below, have made an invention in

ELECTRICAL STIMULATION PROGRAMMING

for which an application for a United States Patent or a U.S. Provisional Application is being filed contemporaneously herewith;

for which an application for a United States Patent identified as U.S. Patent Application No. ; was filed on

for which an application for a U.S. Provisional Application No. ; was filed on

for which above application claims priority to U.S. Provisional Patent Application No. 61/622,505; filed on April 10, 2012; and U.S. Provisional Patent Application No. 61/639,606; filed on April 27, 2012;

which application is identified as PCT International Patent Application No.; filed;

Whereas, <u>Medtronic, Inc.</u>, a corporation organized and existing under the laws of the State of Minnesota and having a principle place of business at <u>710 Medtronic Parkway N.E.</u>, <u>Minneapolis</u>, <u>Minnesota 55432-5604</u>, hereinafter referred to as "Corporation," 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 therefore;

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 Corporation, its successors and assigns, the entire right, title and interest in and to said invention and the application(s) identified above and in and to any application claiming benefit thereto 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 therefore 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 Corporation for its own use and benefit and use and benefit 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 me had this assignment and sale not been made, including the right to enforce such Letters Patent as fully and entirely as the same would have been held and enjoyed by the assignors if this assignment had not been made; together with all claims by assignors for damages by reason of past infringement or for provisional rights and including the right to sue for, and collect the same for its own use and benefit, and for the use and benefit of its successors, assigns, and other legal representatives;

AND, for the consideration aforesaid, we materially represent to Corporation, 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 Corporation, 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

Page 1 of 4 Medtronic, Inc., 710 Medtronic Parkway, Minneapolis, MN 55432

Attorney Docket No.: C00002939.USU3

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 Corporation, its successors or assigns, but at Corporation's expense.

I/We do hereby authorize and request the Commissioner of Patents to issue any and all Letters Patent which may be granted upon any of the said applications, to said Medtronic, Inc., as the assignee of the entire right, title, and interest therein.

In witness whereof, I/we have signed my/our name(s) on the day and year set forth below:

Given Name (first and middle initial [if any]): Rahul	Family Name or Surname (last name): Gupta			
Inventor's Signature:		Date:		
Residence (City and State):		Country:	Citizenship:	
St. Louis Park, MN		USA	IN	
STATE OF MINNESOTA)) ss. COUNTY OF ANOKA)) On this day of,, before me personally appeared the above-named , and who executed the foregoing instrument, as said person's free act and deed, on the day and year aforesaid.				
(Seal)				
		Notary Public		

Given Name (first and middle initial [if any]): Steven M.	Family Name or Surname (last name): Goetz		
Inventor's Signature:	Daie:		
Residence (City and State): North Oaks, MN	Country: USA	Citizenship: US	
STATE OF MINNESOTA)) ss. COUNTY OF ANOKA) On this day of and who executed the foregoing instrument, as s.	, before aid person's free act and deed, on	me personally appeared the above-named , the day and year aforesaid.	
(Seal)	Notary Public		

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Given Name (first and middle initial [if any]): Maciej T.	Family N Lazarew	ame or Surname (last nan icz	ne):
Inventor's Signature:		Date: 01-23	- 13
Residence (City and State): Maple Grove, MN		Country: USA	Citizenship: PL
STATE OF MINNESOTA)) ss. COUNTY OF ANOKA) On this 23^{hA} day of $3AHUARY$ and who executed the foregoing instrument, as sa	id person's	$\underline{2013}$, before me p free act and deed, on the c	ersonally appeared the above-named , lay and year aforesaid.
(Seal) (Seal) RAMONA SLY NOTARY PUBLIO MINNESOTA Ny Commission Expires Jan. 31, 2018		<u>Ramone</u> Notary Public	
Given Name (first and middle initial [if any]): Gabriela C.	Family N Molnar	iame or Surname (last nan	ne):
Inventor's Signature:		Date:	
Residence (City and State): Fridley, MM		Country: USA	Citizenship: AR
) ss. COUNTY OF ANOKA) On this day of and who executed the foregoing instrument, as sa (Seal)	id person's	free act and deed, on the c	personally appeared the above-named , lay and year aforesaid.
Given Name (first and middle initial [if any]): Dwight E.	Family N Nelson	lame or Surname (last nar	ne):
Inventor's Signature:		Date:	
Residence (City and State): Shoreview, MN		Country: USA	Citizenship: US
STATE OF MINNESOTA)) ss. COUNTY OF ANOKA) On this day of and who executed the foregoing instrument, as sa	id person's		personally appeared the above-named , day and year aforesaid.
(Scal)		Notary Public	

Assignment

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Attorney Docket No.: C00002939.USU3

Given Name (first and middle initial [if any]): Jianping	Family Name or Surname (last name): Wu			
Inventor's Signature:		Date:		
Residence (City and State): Shoreview, MN		Country: USA	Citizenship: CA	
STATE OF MINNESOTA)) ss. COUNTY OF ANOKA) On thisday of,, before me personally appeared the above-named , and who executed the foregoing instrument, as said person's free act and deed, on the day and year aforesaid.				
(Seal)		Notary Public		

Assignment

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Attorney Docket No.: C00002939.USU3

PATENT REEL: 029683 FRAME: 0548

RECORDED: 01/24/2013