

PATENT ASSIGNMENT

Electronic Version v1.1
 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
H. Toby Markowitz	09/08/2008
Mustafa Karamanoglu	09/08/2008
Pooja Mehta	12/18/2008
Ioana Fleming	09/18/2008
David Scanlon	02/11/2009
Michael Kryger	10/08/2008
Sean Campbell-Massa	12/06/2008
Chad Giese	09/08/2008
Phillip Falkner	09/23/2008

RECEIVING PARTY DATA

Name:	Medtronic, Inc.
Street Address:	710 Medtronic Pkwy.
City:	Minneapolis
State/Country:	MINNESOTA
Postal Code:	55432

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	12117549

CORRESPONDENCE DATA

Fax Number: (248)641-0270
Phone: 248-641-1600
Email: pneal@hdp.com
Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via US Mail.
Correspondent Name: Harness, Dickey, & Pierce, PLC
Address Line 1: P.O. Box 828
Address Line 4: Bloomfield Hills, MICHIGAN 48303

PATENT

501754228

REEL: 027371 FRAME: 0160

CH \$40.00 12117549

ATTORNEY DOCKET NUMBER:	5074D-000005
NAME OF SUBMITTER:	Richard W. Warner
<p>Total Attachments: 12</p> <p>source=Assignment (Medtronic inventors)#page1.tif source=Assignment (Medtronic inventors)#page2.tif source=Assignment (Medtronic inventors)#page3.tif source=Assignment (Medtronic inventors)#page4.tif source=Assignment (Medtronic inventors)#page5.tif source=Assignment (Medtronic inventors)#page6.tif source=Assignment (Medtronic inventors)#page7.tif source=Assignment (Medtronic inventors)#page8.tif source=Assignment (Medtronic inventors)#page9.tif source=Assignment (Medtronic inventors)#page10.tif source=Assignment (Medtronic inventors)#page11.tif source=Assignment (Medtronic inventors)#page12.tif</p>	

ASSIGNMENT BY INVENTORS

THIS ASSIGNMENT, made by H. Toby Markowitz; Mustafa Karamanoglu; Pooja Mehta; Ioana Fleming; David Scanlon; Michael Kryger; Sean Campbell-Massa; Chad Giese; and Phillip Falkner (hereinafter referred to as Assignors), residing at 1670 Ridgewood Lane S, Roseville, Minnesota 55113; 6245 Ben More Drive NE, Fridley, Minnesota 55432; 1525 N. Merrimac Lane, Hanover Park, Illinois 60133; 4129 Roland Avenue, #1B, Baltimore, Maryland 21211; 3721 40th Avenue S, Minneapolis, Minnesota 55406; 2669 Scotland Ct., Apt 301, Mounds View, Minnesota 55112; 2215 Ridge Avenue, Apt 1A, Evanston, Illinois 60201; 1230 Saint Clair Avenue, St. Paul, Minnesota 55015; and 801 Washington Avenue N, Unit 310, Minneapolis, Minnesota 55401, respectively;

WHEREAS, Assignors have invented certain new and useful improvements in Method And Apparatus For Mapping A Structure, set forth in a Patent application for Letters Patent of the United States, already filed on May 8, 2008 as U.S. Application No. 12/117,549; and

WHEREAS, Medtronic, Inc., a Corporation organized under and pursuant to the laws of Minnesota having its principal place of business at 710 Medtronic Parkway NE, Minneapolis, Minnesota 55432-5604 (hereinafter referred to as Assignee), is desirous of acquiring the entire right, title and interest in and to said inventions and said Application for Letters Patent of the United States, and in and to any Letters Patent of the United States to be obtained therefore and thereon.

NOW, THEREFORE, for good and sufficient consideration, the receipt of which is hereby acknowledged, Assignors have sold, assigned, transferred and set over, and by these presents do sell, assign, transfer and set over, unto Assignee, its successors, legal representatives and assigns, the entire right, title and interest in and to the above-mentioned inventions and application for Letters Patent, and in and to any and all direct and indirect divisions, continuations and continuations-in-part of said application, and any

and all Letters Patent in the United States and all foreign countries which may be granted therefore and thereon, and reissues, reexaminations and extensions of said Letters Patent, and all rights under the International Convention for the Protection of Industrial Property, including the right to recover for past infringements, the same to be held and enjoyed by Assignee, for its own use and benefit and the use and benefit of its successors, legal representatives and assigns, to the full end of the term or terms for which Letters Patent may be granted and/or extended, as fully and entirely as the same would have been held and enjoyed by Assignors, had this sale and assignment not been made.

AND for the same consideration, Assignors hereby represent and warrant to Assignee, its successors, legal representatives and assigns, that, at the time of execution and delivery of these presents, except for any rights, titles and/or interests that have arisen to Assignee under law or that have already been transferred to Assignee, Assignors are the sole and lawful owners of the entire right, title and interest in and to the said inventions and application for Letters Patent above-mentioned, and that the same are unencumbered and that Assignors have good and full right and lawful authority to sell and convey the same in the manner herein set forth.

AND for the same consideration, Assignors hereby covenant and agree to and with Assignee, its successors, legal representatives and assigns, that Assignors will sign all papers and documents, take all lawful oaths and do all acts necessary or required to be done for the procurement, maintenance, enforcement and defense of any Letters Patent and applications for Letters Patent for said inventions, without charge to Assignee, its successors, legal representatives and assigns, whenever counsel of Assignee, or counsel of its successors, legal representatives and assigns, shall advise: that any proceeding in connection with said inventions, or said Patent application for Letters Patent, or any proceeding in connection with any Letters Patent or applications for Letters Patent for said inventions in any country, including but not limited to interference proceedings, is lawful and desirable; or, that any division, continuation or continuation-in-

part of any application for Letters Patent, or any reissue, reexamination or extension of any Letters Patent, to be obtained thereon, is lawful and desirable.

AND Assignors hereby request the Commissioner of Patent and Trademarks to issue said Letters Patent of the United States to Assignee, as Assignee of said inventions and the Letters Patent to be issued thereon, for the sole use and benefit of Assignee, its successors, legal representatives and assigns.

AND Assignors hereby grant the following individuals the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document:

HARNES, DICKEY & PIERCE, P.L.C.

All practitioners at Customer Number 27572

AND Assignors acknowledge an obligation of assignment of this invention to Assignee at the time the invention was made.

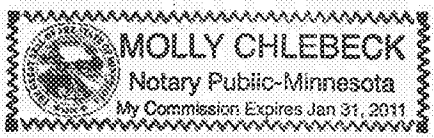
H. Toby Markowitz
H. Toby Markowitz

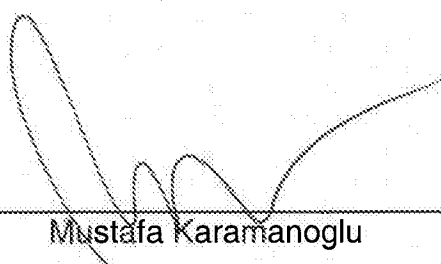
Date: 8 SEP 08

United States of America)
State of MINNESOTA) ss.:
County of RAMSEY)

On this 8th day of September, 2008, before me personally came H. Toby Markowitz, to me known to be the individual described in and who executed the foregoing instrument, and acknowledged execution of the same.

Molly Chlebeck
Notary Public






Mustafa Karamanoglu

Date: 9/8/2008


United States of America)
State of Minnesota) ss.:
County of Ramsey)

On this 8th day of September, 2008, before me personally came Mustafa Karamanoglu, to me known to be the individual described in and who executed the foregoing instrument, and acknowledged execution of the same.



Notary Public

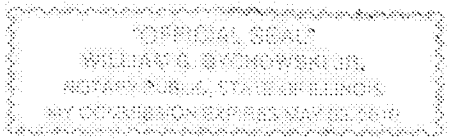


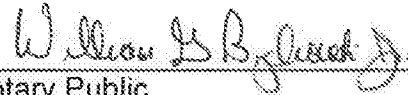

Pooja Mehta

Date: 12/18/2008

United States of America)
State of ILLINOIS) ss.:
County of D. PAGE)

On this 18 day of DECEMBER, 2008, before me personally came Pooja Mehta, to me known to be the individual described in and who executed the foregoing instrument, and acknowledged execution of the same.




Notary Public

Ioana Fleming
Ioana Fleming

Date: September 18, 2008

United States of America)
State of MARYLAND) ss.:
County of BALTIMORE)

On this 18th day of September, 2008, before me personally came Ioana Fleming, to me known to be the individual described in and who executed the foregoing instrument, and acknowledged execution of the same.

Francina M. Taylor
Notary Public



David P. Scanlon

David Scanlon

Date: 2/11/09

United States of America)
State of Minnesota) ss.:
County of Hennepin)

On this 11th day of February, 2009, before me personally came David Scanlon, to me known to be the individual described in and who executed the foregoing instrument, and acknowledged execution of the same.

Suman Arora

Notary Public



Michael Kryger
Michael Kryger

Date: 10/08/2008

United States of America)
State of Illinois) ss.:
County of Cook)

On this 8 day of Oct, 2008, before me personally came Michael Kryger, to me known to be the individual described in and who executed the foregoing instrument, and acknowledged execution of the same.

Miroslava Rachuy
Notary Public




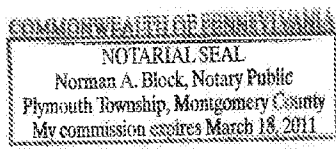

Sean Campbell-Massa


Date: 12/6/08

United States of America)
State of PA) ss.:
County of Montgomery)

On this 6th day of DECEMBER, 2008, before me personally came Sean Campbell-Massa, to me known to be the individual described in and who executed the foregoing instrument, and acknowledged execution of the same.


Notary Public




Chad Giese

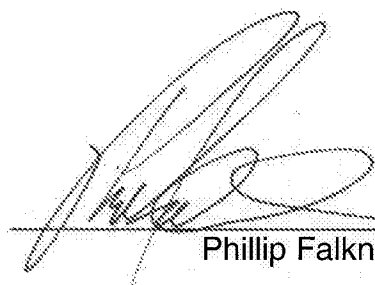
Date: 9-8-08

United States of America)
State of Minnesota) ss.:
County of Ramsey)

On this 8th day of September, 2008, before me personally came Chad Giese, to me known to be the individual described in and who executed the foregoing instrument, and acknowledged execution of the same.


Notary Public



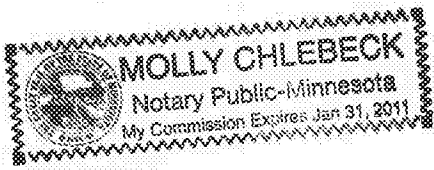


Phillip Falkner

Date: 9-23-08

United States of America)
State of Minnesota) ss.:
County of Ramsey)

On this 23rd day of September, 2008, before me personally came Phillip Falkner, to me known to be the individual described in and who executed the foregoing instrument, and acknowledged execution of the same.



Molly Chlebeck

Notary Public