PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4935144

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
BRUCE D. GUNDERSON	01/05/2018
CHARLES D. SWERDLOW	03/22/2018

RECEIVING PARTY DATA

Name: MEDTRONIC, INC.	
Street Address: 710 MEDTRONIC PARKWAY N.E.	
City: MINNEAPOLIS	
State/Country: MINNESOTA	
Postal Code:	55432-5604

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15836283

CORRESPONDENCE DATA

Fax Number: (651)735-1102

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.

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ATTORNEY DOCKET NUMBER:	C015473.USU2/1111-550US01
NAME OF SUBMITTER:	CAITLIN E. MYHRE
SIGNATURE:	/Caitlin E. Myhre/
DATE SIGNED:	04/27/2018

Total Attachments: 4

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PATENT 504888403 REEL: 045651 FRAME: 0148

Attorney Docket No.: C00015473.USU2/1111-550US01

ASSIGNMENT OF APPLICATION(S)

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

	DETECTING VENTRICULAR LEAD DISLODGEMENT
	for which an application for a United States Patent or a U.S. Provisional Application is being filed contemporaneously herewith;
Ø	for which an application for a United States Patent identified as U.S. Patent Application No. 15/836,283; was filed on December 08, 2017;
	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. 62/432,504; filed on December 69, 2016;
	which application is identified as PCT International Patent Application No.; filed;
hav	Whereas, Medtronic, Inc., a corporation organized and existing under the laws of the State of Minnesota and ving a principle place of business at 710 Medtronic Parkway N.E., Minneapolis, Minnesota 55432-5604, hereinafter
ref	erred 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

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, which include the right to claim priority based on the filing date of said applications(s), 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 assignment had not been made;

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;

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, 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 2 Attorney Docket No.: C00015473.USU2/1111-550US01
Medtronic, Inc., 710 Medtronic Parkway, Minneapolis, MN 55432

Assignment

granted therefore;

and other legal representatives;

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]):					
Bruce D.	Gunderso	on			
Inventor's Signature:	1	Date:			
Brue D. N. Levra		Janua	, 5,2018		
City and State:		Country: Citizenship:			
Plymouth, MN		USA	USA		
STATE OF MINNESOTA) ss. COUNTY OF AWS) ss. On this How day of Haulang Bruce D. Gunderson, and who executed the foreg aforesaid.	oing instrun	ent, as said person'	personally appeared the above-named sfree act and deed, on the day and year		
(Seal) MADONNA M. SCHROEDER Notary Public State of Minnesota My Commission Expires January 31, 2020 Motary Public Notary Public					
Given Name (first and middle initial [if any]): Charles D.	Swerdlov	ame or Surname (la v	st name):		
Inventor's Signature:		Date:			
inveiror's Signature.		Date.			
Residence (City and State):		Country: Citizenship:			
Los Angeles, CA		USA	USA		
STATE OF MINNESOTA)) ss. COUNTY OF					
(Seal)		Notary Public			

Attorney Docket No.: C00015473.USU2/1111-550US01

ASSIGNMENT OF APPLICATION(S)

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

	DETECTING VENTRICULAR LEAD DISLODGEMENT
	for which an application for a United States Patent or a U.S. Provisional Application is being filed contemporaneously herewith;
\boxtimes	for which an application for a United States Patent identified as U.S. Patent Application No. 15/836,283; was filed on December 08, 2017;
	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. 62/432,504; filed on December 09, 2016;
	which application is identified as PCT International Patent Application No.; filed;
ha	Whereas, Medtronic, Inc., a corporation organized and existing under the laws of the State of Minnesota and ving a principle place of business at 710 Medtronic Parkway N.E., Minneapolis, Minnesota 55432-5604, hereinafte

having a principle place of business at 710 Medtronic Parkway N.E., Minneapolis, Minnesota 55432-5604, 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

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, which include the right to claim priority based on the filing date of said applications(s), 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 2 Attorney Docket No.: C00015473.USU2/1111-550USI Medtronic, Inc., 710 Medtronic Parkway, Minneapolis, MN 55432

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]): Charles D.	Family N Swerdlo	lame or Surname	(last name):		
Inventor's Signature:	vel.		MAR	2018	
City and State: Plymouth, MN		Country: USA		Citizenship: USA	
STATE OF MINNESOTA)) ss. COUNTY OF) On this day of Bruce D. Gunderson, and who executed the fore aforesaid.	going instru	, 2017, before ment, as said pers	me personally on's free act a	appeared the above-named and deed, on the day and year	
(Seal)		Notary Public			
Given Name (first and middle initial [if any]): Charles D.	Family Swerdl	Name or Surname	(last name):		
Inventor's Signature:		Date:			
Residence (City and State): Los Angeles, CA		Country: USA		Citizenship: USA	
STATE OF MINNESOTA On this 22 day of MINC Charles D. Swerdlow, and who executed the for aforesaid BRIDGETTE TAYLOR Notary Public - California Los Angeles County Commission # 2195141 My Comm. Expires May 1, 2021	egoing inst	, 2017, before rument, as said pe	e me personall	y appeared the above-named and deed, on the day and year	
\$					

Assignment

RECORDED: 04/27/2018

Page 2 of 2 Attorney Docket No.: C00015473.USU2/1111-650US Medtronic, Inc., 710 Medtronic Parkway, Minneapolis, MN 55432