#### 502327174 04/29/2013

## PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	ASSIGNMENT	

## **CONVEYING PARTY DATA**

Name	Execution Date
Xusheng Zhang	04/25/2013
Mark L. Brown	04/25/2013
Paul J. DeGroot	04/25/2013
Saul E. Greenhut	04/23/2013
Troy E. Jackson	04/25/2013

#### **RECEIVING PARTY DATA**

Name:	Medtronic, Inc.	
Street Address:	710 Medtronic Parkway	
Internal Address:	Mail Stop LC340	
City:	Minneapolis	
State/Country:	MINNESOTA	
Postal Code:	55432	

## PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	13833171

# **CORRESPONDENCE DATA**

Fax Number: 6513670471

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

Phone: (763) 526-0929

carrie.m.arcand@medtronic.com Email:

Correspondent Name: Michael J. Ostrom Address Line 1: 710 Medtronic Parkway Address Line 2: Mail Stop LC340

Address Line 4: Minneapolis, MINNESOTA 55432

ATTORNEY DOCKET NUMBER: C00003920.USU1/LG10126

**REEL: 030303 FRAME: 0833** 

**PATENT** 

502327174

NAME OF SUBMITTER:	Carrie M. Arcand
Signature:	/Carrie M. Arcand/
Date:	04/29/2013
Total Attachments: 6 source=C00003920USU1_Assignment#pag source=C00003920USU1_Assignment#pag source=C00003920USU1_Assignment#pag source=C00003920USU1_Assignment#pag source=C00003920USU1_Assignment#pag source=C00003920USU1_Assignment#pag	ge2.tif ge3.tif ge4.tif ge5.tif

PATENT REEL: 030303 FRAME: 0834

Attorney Docket No.: C00003920.USU1

## ASSIGNMENT OF APPLICATION(S)

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

A SYSTEM AND METHOD FOR AVOIDING UNDERSENSING OF VENTRICULAR FIBRILLATION	N .
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. 13/833,171 on 03/15/2013;	; was filed
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. ; filed on	;
which application is identified as PCT International Patent Application No.; filed;	
Whereas, Medtronic, Inc., a corporation organized and existing under the laws of the State of Mir having a principle place of business at 710 Medtronic Parkway N.E., Minneapolis, Minnesota 55432-560-referred to as "Corporation," is desirous of acquiring the entire right, title and interest in and to said inven United States and for all foreign countries and in and to any and all foreign and domestic Letters Patent woranted therefore:	, hereinafte

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

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]):  Xusheng	Family Name or Surname (las Zhang	y Name or Surname (last name): g		
Inventor's Signature:	Date:	Date: 04/25/2013		
City and State: Shoreview, Minnesota	Country: USA	Citizenship: US		
STATE OF MINNESOTA )  ss.  COUNTY OF RAMSEY )  On this 25° day of 244  and who executed the foregoing instrument, as said  CAPRIE M. ARCANO  (Seal) Notice Public Africanopota	d person's free act and deed, on			
		***************************************		
Given Name (first and middle initial [if any]): Mark L.	Family Name or Surname (las	t name):		
Given Name (first and middle initial [if any]):	Family Name or Surname (las			
Given Name (first and middle initial [if any]):  Mark L.  Inventor's Signature.	Family Name or Surname (las			

REEL: 030303 FRAME: 0836

Given Name (first and middle initial [if any]): Paul J.	Family Na DeGroot	Family Name or Surname (last name): DeGroot		
Inventor's Signature:		Date: 25 - Apr - 2013		
Residence (City and State): Shoreview, Minnesota		Country: USA	Citizenship: US	
STATE OF MINNESOTA )				
COUNTY OF RAMSEY  On this 25 day of 4 day of and who executed the foregoing instrument, as sai	id nerson's fi	,	ially appeared the above-named ,	
(Seal) Notery Public-Minnesote		DOUM D Notary Public		
Given Name (first and middle initial [if any]): Saul E.	Family Na Greenhut	ime or Surname (last name):		
Inventor's Signature:		Date:		
Residence (City and State): Aurora, Colorado		Country: USA	Citizenship: US	
STATE OF COLORADO )    ss.     COUNTY OF     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]): Troy E.	Family Na Jackson	me or Surname (last name):		
Investor's Signature:		Date: APRIL 25	-, 2013	
Residence (City and State): New Brighton, Minnesota		Country: USA	Citizenship: US	
STATE OF MINNESOTA ) ) ss.  COUNTY OF RAMSEY ) On this 254 day of 2000 and who executed the foregoing instrument, as sais	-	, <u>2013</u> , before me person ee act and deed, on the day an	ally appeared the above-named, dyear aforesaid.	
(Seal) CARRIE M. ARCAND Notery Public-Minnesota My Commission Explore Sec 11, 201	) \$	Lalum Q Notary Public	rcand_	

Attorney Docket No.: C00003920.USU1

## ASSIGNMENT OF APPLICATION(S)

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

******	A SYSTEM AND METHOD FOR AVOIDING UNDERSENSING OF VENTRICULAR FIBRILLATION
	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. 13/833,171; was filed on 03/15/2013;
	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. ; filed on ;
	which application is identified as PCT International Patent Application No.; filed;
refe Un	Whereas, Meditonic, Inc., a corporation organized and existing under the laws of the State of Minnesota and ring a principle place of business at 710 Meditonic Parkway N.E., Minneapolis, Minnesota 55432-5604, hereinafted erred to as "Corporation," is desirous of acquiring the entire right, title and interest in and to said invention for the ited States and for all foreign countries and in and to any and all foreign and domestic Letters Patent which may be inted 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

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.

Given Name (first and middle initial [if any]): Xusheng	********************	or name(s) on the day and year set forth below.  Family Name or Surname (last name):  Zhang			
ventor's Signature:		Date:			
City and State: Shoreview, Minnesota		Country: USA	Citizenship: US		
STATE OF MINNESOTA ) ) ss. COUNTY OF RAMSEY )					
On this day of and who executed the foregoing instrument, as sa	id person's	, befor free act and deed, o	e me personally appeared the above-named , n the day and year aforesaid.		
(Seal)		Notary Public			
Given Name (first and middle initial (if any)): Mark L.	Family N Brown	lanc or Surrame (L	331 D8836);		
Inventor's Signature:		Date:			
Residence (City and State): North Oaks	•	Country: USA	Citizenship: US		
STATE OF MINNESOTA ) ) ss.  COUNTY OF RAMSEY ) 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]): Paul J.	Family N DeGroot	iame or Surname (last name):		
Inventor's Signature:		Date:		
Residence (City and State): Shoreview, Minnesota		Country: USA	Citizenship: US	
STATE OF MINNESOTA ) ) ss.				
COUNTY OF RAMSEY )		N. 10.		
On this day of and who executed the foregoing instrument, as sa	ild person's f	, nerore me perso free act and deed, on the day a	naily appeared the above-named , nd year aforesaid.	
(Seal)		Notary Public		
	inninninninnin inninninninnin		ommunimummummummummimmimmimmimmi ommunimummummummimmimmimmimmimmi	
Given Name (first and middle initial [if any]): Saul E.	Family N Greenbu			
Inventor's Signature/		Date: 4/23/13		
Residence (City and State): U Aurora, Colorado		Country: USA	Citizenship: US	
STATE OF COLORADO )	••••••	3		
COUNTY OF TUCKE COUNTY OF TUCKE COUNTY OF TUCKED COUNTY O				
(Seal) KATHLEEN D. CHR NOTARY PUB STATE OF COLO	ISTENSEN UC	1 2 also o DOMS Johny Public 2 4 Canonesco E	<u> 2002 h</u> 2005 05/11/2015	
Given Name (first and middle initial [if any]): Family Name or Surname (last name):  Froy E. Jackson				
Inventor's Signature:		Date:		
Residence (City and State): New Brighton, Minnesota		Country: USA	Citizenship: US	
STATE OF MINNESOTA				
COUNTY OF RAMBEY )				
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)				
County		Notary Public		

Assignment

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