PATENT ASSIGNMENT

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SUBMISSION TYPE:		NEW ASSIGNMENT		
NATURE OF CONVEYANCE:	YANCE: ASSIGNMENT			
CONVEYING PARTY DATA				
Name			Execution Date	
Ronan Wood			09/25/2013	
Sean Ward			09/25/2013	
Gwenda McMullin			09/25/2013	
Paula McDonnall			09/25/2013	
Aram Jamous			09/25/2013	
RECEIVING PARTY DATA				
Name: Medtro	nic, Inc.			
Street Address: 710 Me	710 Medtronic Parkway			
Internal Address: Mail St	Mail Stop LC340			
City: Minnea	Minneapolis			
State/Country: MINNE	MINNESOTA			
Postal Code: 55432	55432			
PROPERTY NUMBERS Total:	1			
Property Type	ype Number			
Application Number:				
CORRESPONDENCE DATA				
	35052530	than the four other the uner responded		
	Correspondence will be sent via US Mail when the fax attempt is unsuccessful.Phone:(763) 526-1564			
	(763) 526-1564 susan.m.nienaber@medtronic.com			
	5			
	710 Medtronic Parkway			
	Mail Stop LC340			
Address Line 4: Minneapolis, MINNESOTA 55432				
ATTORNEY DOCKET NUMBER:		C00005393.USU1		
502513152			PATENT REEL: 031301 FRAME: 0616	

NAME OF SUBMITTER:	Susan M. Nienaber
Signature:	/Susan M. Nienaber/
Date:	09/27/2013
Total Attachments: 3 source=EFS_executed_assign#page1.tif source=EFS_executed_assign#page2.tif source=EFS_executed_assign#page3.tif	

ASSIGNMENT OF APPLICATION(S)

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

INTERVENTIONAL MEDICAL SYSTEMS, TOOLS, AND ASSEMBLIES

X 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

: 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 ;

for which an application for a U.S. Provisional Application No.

Whereas, Medtronic. Inc., a corporation organized and existing under the laws of the State of Minnesota and 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 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

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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 forth below.

Oiven Name (first and middle initial [if any]): Rónán	Family Name or Sumame (last r Wood	tame):		
Inventor's Signature:	Date: 25- Sept-	15		
Residence (City and State): Co. na Gaillmhe	Country: Ireland	Citizenship: Ireland		
Heste WMali Wingess Signature Wingest Signature				
<u>GOEONA MC MULLIN</u> Witness Printed Name	ARA M J Witness Printe	<u>rAHOVS</u> xi Name		

Given Name (first and middle initial [if any]): Sean	Family Name or Sumame (last Ward	l name):
Inventor's Signature:	Date:	5/5007/2013
Residence (City and State): Dublin	Country: Ireland	Citizenship: Ireland
Reficient Wood Witness Signature RENAN WOOD Witness Printed Name		ature 104 all hiller

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Given Name (first and middle initial [if any]): Gwenda	Family Name or Sumame (last name): McMullin		
Inventor's Signature:	Date:	25 Sep :	2012
Residence (City and State):	Coun	лу: 7	Citizenship:
Galway	Irelai	ıd	Ireland
<u>Pricen Wood</u> Witness Signature <u>RONAN WOOD</u> Witness Printed Name		Witness Mgnature RAM J Witness Printed Nam	AMOUS

Given Name (first and middle initial [if any]): Paula	Family Name or Sumame (last name): McDonnall	
Inventor's Signature:	Date:	
Paula huldonall	25/09/2013	00000000000000000000000000000000000000
Residence (City and State):	Country:	Citizenship:
Galway	Ireland	Ireland
<u>Jan ai Uca/</u> Witness Signature 25NAU WXXXD		A MCMM
Witness Printed Name	Witness Printed Nat	

Given Name (first and middle initial [if any]): Aram	Family Name or Sumame (last name): Jamous		
Inventor's Signature:	Date:	103/2013	
Residence (City and State): N Co Galway	Country: Ireland	Citizenship: Ireland	
Witness Signature		a <u>MCConnell</u> Signature	
RONÁN WOOD Witness Printed Name		A NCOONELL Printed Name	

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Attorney Docket No.: C00005393.USU1

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RECORDED: 09/27/2013