ASSIGNMENT RECORDATION FORM COVER SHEET PATENTS ONLY

U.S. DEPARTMENT OF COMMERCE
Patent and Trademark Office

1-31-92 P-8887.00

To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.

1.	Name of conveying party(ies):	2. Name and address of receiving party(ies):
	 Jian Cao Brian B. Lee	Name: <u>MEDTRONIC, INC</u> Internal Address: <u>M.S. LC 340</u>
	\$pencer R. Hurd	Street Address: 710 Medtronic Parkway
		City: MINNEAPOLIS State: MN Zip: 55432
	Additional name(s) of conveying party(les) attached? []Ye	\$ [X]No
3.	Nature of conveyance:	'ng
		[X] Assignment . [] Merger [] Security Agreement [] Change of Name [] Other
	Execution Date: 01/06/04 Jian Cao 01/09/04 Brian B. Lee 01/06/04 Spencer R. Hurd	Additional name(s) & address(es) attached? []Yes [X]No
4.	Application number(s) or patent number(s): 09/797,0 If this document is being filed together with a new application.	31 on, the execution date of the application is:_
A.	Patent Application No.(s) Additional numbers attached? []Yes [X]No	
5.	Name and address of party to whom correspondence concerning document should be mailed:	Total number of applications and patents involved:
	Name: Elisabeth L. Belden	7. Total fee (37 CFR 3.41):\$40.00
	Address: Customer No. 27581	8. Deposit Account Number: 13-2546 (Attach duplicate copy of this page)
		[] Enclosed [X] Authorized to be charged to deposit account
9	Statement and signature.	T USE THIS SPACE
-	To the best of my knowledge and belief, the foregoin original document.	g information is true and correct and any attached copy is a true copy of the
	Elisabeth L. Belden Reg. 50,751 Name of Person Signing Signa	ture Date
O١	MB No. 0651-0011 (exp. 4/94)	Total number of pages including cover sheet, attachments and document: 5
	Dor	ot detach this portion
	Commiss All Public burden reporting for this sample cover sheet is estimated to	ssignment Recordation Services ioner for Patents, P.O. Box 1450 exandria, VA 22313-1450 o average about 30 minutes per document to be recorded, including time for reviewing the the sample cover sheet. Send comments regarding this burden estimate to the U.S. Patent

PATENT REEL: 014493 FRAME: 0691

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Project (0651-0011), 1Washington, D.C. 20503.

ATTORNEY DOCKET: P-8887.00

ASSIGNMENT

WHEREAS, WE, <u>Jian Cao</u>, <u>Brian B. Lee and Spencer R. Hurd</u>, are the inventors of <u>IMPLANTABLE MEDICAL DEVICE WITH MULTI-VECTOR SENSING ELECTRODES</u> for which we have executed an application for filing in the United States Patent and Trademark Office preparatory to obtaining Letters Patent of the United States on <u>March 1</u>, 2001, therefor; and

WHEREAS, MEDTRONIC, INC. a corporation organized and existing under the laws of the State of Minnesota and having a principal place of business at 710 Medtronic Parkway N.E., Minneapolis, Minnesota 55432-5640, 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 therefor;

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 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 therefor 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 behoof and use and behoof 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;

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.

ASSIGNMENT Page 1 of 4

PATENT REEL: 014493 FRAME: 0692 I hereby request the Honorable Commissioner of Patents and Trademarks to issue the Letters Patent to Corporation in accordance with this instrument.

day of

Pag Can

On this _______, 2004, before me personally appeared Jian Cao, to me known to be the person described in and who executed the foregoing instrument and acknowledged that s/he executed the same as his/her free act and deed.

IN WITNESS WHEREOF, I have hereunto affixed my official signature with the seal of my office, the day and year above written.

SUBJECT OF MANAGEMENT AS A STATE OF STA

Susan M. McCy Notary Public

> ASSIGNMENT Page 2 of 4

PATENT REEL: 014493 FRAME: 0693

I hereby request the Honorable Commissioner of Patents and Trademarks to issue the Letters Patent to Corporation in accordance with this instrument.

IN WITNESS WHEREOF, I have hereunto set my hand on this ______ day of

On this ______ day of _______, 2004, before me personally appeared Brian B. Lee, to me known to be the person described in and who executed the foregoing instrument and acknowledged that s/he executed the same as his/her free act and deed.

IN WITNESS WHEREOF, I have hereunto affixed my official signature with the seal of my office, the day and year above written.

KATHLEEN M. ALTMAN NOTARY PUBLIC - MINNESOTA My Comm. Expires Jan. 31, 2005

ASSIGNMENT Page 3 of 4

PATENT REEL: 014493 FRAME: 0694 I hereby request the Honorable Commissioner of Patents and Trademarks to issue the Letters Patent to Corporation in accordance with this instrument.

IN WITNESS WHEREOF, I have hereunto set my hand on this _____

day of

Spencer R. Hus Q

On this _______, day of ________, 2004, before me personally appeared Spencer R. Hurd, to me known to be the person described in and who executed the foregoing instrument and acknowledged that s/he executed the same as his/her free act and deed.

IN WITNESS WHEREOF, I have hereunto affixed my official signature with the seal of my office, the day and year above written.

SA LA LA CARROLLE SA SELECTOR SA CARROLLE SA CARROLLE

Marini in Winderstampara (1977)

Notary Public M. McCoy

ASSIGNMENT Page 4 of 4

PATENT REEL: 014493 FRAME: 0695

RECORDED: 04/05/2004