06/02/2017 504395059

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4441756

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
ZACHARY LEE HELGESON	11/13/2014
ALEXANDER CARSON HOUCK	11/06/2014
JOHN SON HER	12/10/2014
SALOME A. GONZALEZ	11/18/2014
SOMALLY MOM	11/18/2014
BRIAN MICHAEL MONAHAN	12/03/2014
NEIL DAVID HAWKINSON	11/13/2014
JAMES REGINALD NIGG	11/06/2014
JAMES CLAYTON MARRS	11/13/2014
XUAN YEN KHIEU	11/13/2014
TROY TERRANCE TEGG	01/12/2015
JILL LAFAVOR	11/05/2014
ISRAEL A. BYRD	08/11/2016

RECEIVING PARTY DATA

Name:	ST. JUDE MEDICAL, CARDIOLOGY DIVISION, INC.
Street Address:	177 EAST COUNTY ROAD B
City:	ST. PAUL
State/Country:	MINNESOTA
Postal Code:	55117

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15116785

CORRESPONDENCE DATA

Fax Number: (651)756-2808

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.

Phone: 6517562000 Email: jawe@sjm.com Correspondent Name: MARK D. LAVENDER

Address Line 1: ST. JUDE MEDICAL, CD, INC.

REEL: 042669 FRAME: 0786 504395059

PATENT

Address Line 2: 177 EAST COUNTY ROAD B
Address Line 4: ST. PAUL, MINNESOTA 55117

ATTORNEY DOCKET NUMBER: CD-854US01

NAME OF SUBMITTER: JILLIAN K. AWE

SIGNATURE: /Jillian K. Awe/

DATE SIGNED: 06/02/2017

Total Attachments: 38 source=Fully Executed Assignment with Israel Byrd#page1.tif source=Fully Executed Assignment with Israel Byrd#page2.tif source=Fully Executed Assignment with Israel Byrd#page3.tif source=Fully Executed Assignment with Israel Byrd#page4.tif source=Fully Executed Assignment with Israel Byrd#page5.tif source=Fully Executed Assignment with Israel Byrd#page6.tif source=Fully Executed Assignment with Israel Byrd#page7.tif source=Fully Executed Assignment with Israel Byrd#page8.tif source=Fully Executed Assignment with Israel Byrd#page9.tif source=Fully Executed Assignment with Israel Byrd#page10.tif source=Fully Executed Assignment with Israel Byrd#page11.tif source=Fully Executed Assignment with Israel Byrd#page12.tif source=Fully Executed Assignment with Israel Byrd#page13.tif source=Fully Executed Assignment with Israel Byrd#page14.tif source=Fully Executed Assignment with Israel Byrd#page15.tif source=Fully Executed Assignment with Israel Byrd#page16.tif source=Fully Executed Assignment_with_Israel_Byrd#page17.tif source=Fully Executed Assignment_with_Israel_Byrd#page18.tif source=Fully Executed Assignment with Israel Byrd#page19.tif source=Fully Executed Assignment with Israel Byrd#page20.tif source=Fully Executed Assignment with Israel Byrd#page21.tif source=Fully Executed Assignment with Israel Byrd#page22.tif source=Fully Executed Assignment with Israel Byrd#page23.tif source=Fully Executed Assignment with Israel Byrd#page24.tif source=Fully Executed Assignment with Israel Byrd#page25.tif source=Fully Executed Assignment with Israel Byrd#page26.tif source=Fully Executed Assignment with Israel Byrd#page27.tif source=Fully Executed Assignment with Israel Byrd#page28.tif source=Fully Executed Assignment with Israel Byrd#page29.tif source=Fully Executed Assignment with Israel Byrd#page30.tif source=Fully Executed Assignment with Israel Byrd#page31.tif source=Fully Executed Assignment with Israel Byrd#page32.tif source=Fully Executed Assignment with Israel Byrd#page33.tif source=Fully Executed Assignment with Israel Byrd#page34.tif source=Fully Executed Assignment with Israel Byrd#page35.tif source=Fully Executed Assignment with Israel Byrd#page36.tif source=Fully Executed Assignment with Israel Byrd#page37.tif source=Fully Executed Assignment with Israel Byrd#page38.tif

ASSIGNMENT

WHEREAS, WE, Zachary Lee Helgeson of 2106 35th Street E. Minneapolis, Minnesota 55407, United States of America; Alexander Carson Houck of 229 13th Avenue N., Hopkins, Minnesota 55343, United States of America; John Son Her of 6724 Adair Avenue North, Brooklyn Park, Minnesota 55429, United States of America; Salome A. Gonzalez of 13301 Maple Knoll Way #1610, Maple Grove, Minnesota 55369, United States of America; Somally Mom of 6155 140th Street W., Savage, Minnesota 55378, United States of America; Brian Michael Monahan of 12488 194th Lane NW., Elk River, Minnesota 55330, United States of America; Neil David Hawkinson of 7334 149th Avenue, Ramsey, Minnesota 55303, United States of America; James Reginald Nigg of 9249 97th Street SW., Howard Lake, Minnesota 55349, United States of America; James Clayton Marrs of 1748 Chatham Avenue, Arden Hills, Minnesota 55112, United States of Amrica; Xuan Yen Khieu of 7300 Inland Lane North, Maple Grove, Minnesota 55311, United States of America; Troy Terrance Tegg of 19307 Baldwin Street, Elk River, Minnesota 55330, United States of America; and Jill LaFavor of 16700 Seymour Drive, Minnetonka, Minnesota 55345, United States of America, hereinafter ASSIGNORS, have invented certain new and useful improvements in elongate medical device including chamfered ring electrode and variable shaft, for which United States provisional patent application number 61/936,677 was filed on 06 February 2014;

AND WHEREAS St. Jude Medical, Cardiology Division, Inc., a corporation organized and existing under the laws of Delaware, and having a business address at 177 East County Road B, St. Paul, MN 55117, hereinafter ASSIGNEE, is desirous of acquiring the entire right, title, and interest in, to, and under said invention, said application, and any and all patents to be obtained therefore throughout the world;

NOW, THEREFORE, for and in consideration of good and valuable consideration to us in hand paid by ASSIGNEE, the receipt of which is hereby acknowledged, we have sold, assigned, and transferred, and by these presents do hereby sell, assign, and transfer unto ASSIGNEE, its successors and assigns, our entire right, title, and interest in and to said invention, said application, all divisions, continuations, continuations-in-part, reissues, or renewals thereof, and said patents, both foreign and domestic, that may or shall issue, including all of our entire rights under any and all international conventions;

AND WE HEREBY authorize ASSIGNEE, its successors and assigns, or anyone it may properly designate, to apply for patents, in its own name if desired, in any and all foreign countries, and additionally to claim the filing date of said United States application and otherwise take advantage of the provisions of any and all international conventions;

AND WE HEREBY authorize and request any official of any State whose duty consists of issuing patents, or other evidence or forms of any industrial property protection on any aforesaid application, to issue same to ASSIGNEE, its successors and assigns, in accordance herewith;

AND WE HEREBY covenant and agree with ASSIGNEE, its successors and assigns, that we have the full right to convey the entire interest assigned herein, and that we have not

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executed, and will not execute, any agreement in conflict herewith, and that we will not do any other act whatsoever conflicting with these presents, and that we or our successors, assigns, executors, or administrators will at any time upon request, without further or additional consideration, but at the expense of ASSIGNEE, its successors and assigns, communicate to ASSIGNEE, its successors and assigns, any facts known to ASSIGNORS respecting said invention, and testify in any legal proceedings, sign any lawful papers, execute any original, divisional, continuation, and continuation-in-part applications, make any rightful oaths or declarations, and generally do such additional acts as ASSIGNEE, its successors and assigns, may deem necessary or desirable to obtain and enforce proper protection for said invention throughout the world;

AND WE HEREBY FURTHER covenant and agree that this Assignment is effective as of 06 February 2014.

IN TESTIMONY WHEREOF, ASSIGNORS hereunto set their hands on the under-mentioned date, and deliver this Assignment.

Date:	;	**************************************	
		Zachary Lee Helgeson	
Date:	06N6V2014 C	Alexander Carson Houck	
Date:		John Son Her	
Date:	11-18-14	Salome A. Gonzalez	
Date:	11-18-14	Somally Mont	
	12-3-14	Brian Michael Monahan	
Assigno	ors' Initials		
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Date:	James Reginald Nigg
Date: 13 Nov 2014	James Clayton Marrs
Date: 12 Nov 2014	Zuan Yen Khieu
Date: 1//2 /-7 <= 1	Troy Terrance Tegg
Date: <u>05/V0V_2014</u>	Jill LaFavor
personally appeared Zacha evidence to be the person vacknowledged to me that h	ME, a Notary Public in and for the under-mentioned place, ry Lee Helgeson, who proved to me on the basis of satisfactor, whose name is subscribed to the foregoing assignment and the executed the same in his authorized capacity and on of the same was a free will act and deed.
(Date)	(County/City/State) SEAL
(Commission Expiry Date	(Notary Public: Signature and Name)

Page 3 of 9

personally appeared Alexand satisfactory evidence to be the assignment and acknowledg	ME, a Notary Public in and for the under-nder Carson Houck, who proved to me on the person whose name is subscribed to the ed to me that he executed the same in his a ution of the same was a free will act and determine the was a free will act and determine the was a free will act an	te basis of foregoing uthorized capacity
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personally appeared John So the person whose name is su	ME, a Notary Public in and for the under-non Her, who proved to me on the basis of subscribed to the foregoing assignment and authorized capacity and acknowledged that	atisfactory evidence to be acknowledged to me that
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Page 4 of 9

to be the person whose name	A. Gonzalez, who proved to me on the basis of satisfactory evidence is subscribed to the foregoing assignment and acknowledged to me his authorized capacity and acknowledged that execution of the deed.	
11-18-2014 (Date)	Henry pin [Hymorth] Winnesota (County/City/State)	
1-31-2018 (Commission Expiry Date)	(Notary Public: Signature and Name)	LIZABETH WAH DTARY PUBLIC MINNESOTA Ion Expires Jen. 31, 2

personally appeared Somally the person whose name is su	ME, a Notary Public in and for the under-mentioned place, Mom, who proved to me on the basis of satisfactory evidence to be bscribed to the foregoing assignment and acknowledged to me that authorized capacity and acknowledged that execution of the same	
11-18-2014 (Date)	Henry pin / Plymouth / Winnesot (County/City/State)	9
1-31-208 (Commission Expiry Date)	NOTAL MININGS	BETH WAHBA RY PUBLIC NESOTA Refea Sat. 31, 2818
Assignors' Initials AH / X F A CM / N	4/sn/5n/Bm/77///	2

Page 5 of 9

TODAY, BEFORE ME, a Notary Public in and for the under-mentioned place,

		hose name is subscribed to the foregoing ass executed the same in his authorized capacity free will act and deed.	
	12-3-2014 (Date)	Henry Plymont (County/City/State)	h/Minnesoto
	L-31-20/8 (Commission Expiry Date)	(Notary Public: Signature and Name)	SEAL
	personally appeared Neil Da evidence to be the person w	ME, a Notary Public in and for the under-me avid Hawkinson, who proved to me on the bathose name is subscribed to the foregoing assistence executed the same in his authorized capacity free will act and deed.	asis of satisfactory ignment and
	1-13-7014 (Date)	HUMPIN/Plymosth (County/City/State)	/Minnesota
7.000 JA 70 2000 A 2000 A	1-31-2018 (Commission Expiry Date)	(Notary Public: Signature and Name)	SEAL SARA ELIZABETH WAHEN NOTARY PUBLIC MINNESOTA

TODAY, BEFORE ME, a Notary Public in and for the under-mentioned place, personally appeared Brian Michael Monahan, who proved to me on the basis of satisfactory

Assignors' Initials

Page 6 of 9

My Commission Expires Jan. 31, 2016

Date)	(County/City/State)	
		SEAL
Commission Expiry Dat	te) (Notary Public: Signature and Na	me)
ersonally appeared Jam vidence to be the persor cknowledged to me that	RE ME, a Notary Public in and for the uses Clayton Marrs, who proved to me or whose name is subscribed to the foregular to the same in his authorized as a free will act and deed.	the basis of satisfactory oing assignment and

TODAY, BEFORE ME, a Notary Public in and for the under-mentioned place,

Assignors' Initials

(Commission Expiry Date)

AH / XK HCM / NH / SH / SA / DMN 77/

(Notary Public: Signature and Name)

be the person whose name is subscribed to the foregoing assignment and acknowledged to me that he executed the same in his authorized capacity and acknowledged that execution of the same was a free will act and deed. 11-12-2014 Henregin/Plymorth/Minne sota, (County/City/State) SEAL SARA ELIZABÉTH WAHBA (Notary Public: Signature and Name) NOTARY PUBLIC MINNESOTA kay Commission Explies Jan. 31, 2018 TODAY, BEFORE ME, a Notary Public in and for the under-mentioned place, personally appeared Troy Terrance Tegg, who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the foregoing assignment and acknowledged to me that he executed the same in his authorized capacity and acknowledged that execution of the same was a free will act and deed. HUMANIA / Mymosth/Winnesofo BARA ELIZABETH WAHRA **MOTARY** FUBLIC MINNEGOTA NAMA ELIZA: TELLYAHBA (Notary Public: Signature and Name) NOTARY HUBLIC (Commission Expiry Date) MINN 31, 2018 Assignors' Initials

TODAY, BEFORE ME, a Notary Public in and for the under-mentioned place, personally appeared Xuan Yen Khieu, who proved to me on the basis of satisfactory evidence to

TODAY, BEFORE ME, a Notary Public in and for the under-mentioned place, personally appeared Jill LaFavor, who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the foregoing assignment and acknowledged to me that she executed the same in her authorized capacity and acknowledged that execution of the same was a free will act and deed. Henrepin / Plymorth / Minnesota (County/City/State) SEAL SARA ELIZABETH WAHBA **NOTARY PUBLIC** MINNESOTA My Commission Expires Jan. 31, 2016

Assignors' Initials

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Page 9 of 9

ASSIGNMENT Ellist Are. S. Richfield Minnesota

ZL# 06NOV14

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WHEREAS, WE, Zachary Lee Helgeson of 2106-35th Street E. Minnesota-33407. United States of America: Alexander Carson Houck of 229 13th Avenue N., Hopkins, Minnesota 55343, United States of America; John Son Her of 6724 Adair Avenue North, Brooklyn Park, Minnesota 55429, United States of America; Salome A. Gonzalez of 13301 Maple Knoll Way #1610, Maple Grove, Minnesota 55369, United States of America; Somally Mom of 6155 140th Street W., Savage, Minnesota 55378, United States of America; Brian Michael Monahan of 12488 194th Lane NW., Elk River, Minnesota 55330, United States of America: Neil David Hawkinson of 7334 149th Avenue, Ramsey, Minnesota 55303, United States of America; James Reginald Nigg of 9249 97th Street SW., Howard Lake, Minnesota 55349, United States of America; James Clayton Marrs of 1748 Chatham Avenue, Arden Hills, Minnesota 55112, United States of Amrica; Xuan Yen Khieu of 7300 Inland Lane North, Maple Grove, Minnesota 55311, United States of America; Troy Terrance Tegg of 19307 Baldwin Street, Elk River, Minnesota 55330, United States of America; and Jill LaFavor of 16700 Seymour Drive, Minnetonka, Minnesota 55345, United States of America, hereinafter ASSIGNORS, have invented certain new and useful improvements in elongate medical device including chamfered ring electrode and variable shaft, for which United States provisional patent application number 61/936,677 was filed on 06 February 2014;

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NOW, THEREFORE, for and in consideration of good and valuable consideration to us in hand paid by ASSIGNEE, the receipt of which is hereby acknowledged, we have sold, assigned, and transferred, and by these presents do hereby sell, assign, and transfer unto ASSIGNEE, its successors and assigns, our entire right, title, and interest in and to said invention, said application, all divisions, continuations, continuations-in-part, reissues, or renewals thereof, and said patents, both foreign and domestic, that may or shall issue, including all of our entire rights under any and all international conventions;

AND WE HEREBY authorize ASSIGNEE, its successors and assigns, or anyone it may properly designate, to apply for patents, in its own name if desired, in any and all foreign countries, and additionally to claim the filing date of said United States application and otherwise take advantage of the provisions of any and all international conventions;

AND WE HEREBY authorize and request any official of any State whose duty consists of issuing patents, or other evidence or forms of any industrial property protection on any aforesaid application, to issue same to ASSIGNEE, its successors and assigns, in accordance herewith;

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executed, and will not execute, any agreement in conflict herewith, and that we will not do any other act whatsoever conflicting with these presents, and that we or our successors, assigns, executors, or administrators will at any time upon request, without further or additional consideration, but at the expense of ASSIGNEE, its successors and assigns, communicate to ASSIGNEE, its successors and assigns, any facts known to ASSIGNORS respecting said invention, and testify in any legal proceedings, sign any lawful papers, execute any original, divisional, continuation, and continuation-in-part applications, make any rightful oaths or declarations, and generally do such additional acts as ASSIGNEE, its successors and assigns, may deem necessary or desirable to obtain and enforce proper protection for said invention throughout the world;

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	Alexander Carson Houck			
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Date:	Neil David Hawkinson		
Date:	James Reginald Nigg		
Date:	James Clayton Marrs		
Date:	Xuan Yen Khieu		
Date:	Troy Terrance Tegg		
Date:	Jill LaFavor		
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1-31-20/8 (Commission Expiry Date)	Notary Public: Signature and Name)	4662	ELIZABETH WAHBA NOTARY PUBLIC MINNESOTA
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executed, and will not execute, any agreement in conflict herewith, and that we will not do any other act whatsoever conflicting with these presents, and that we or our successors, assigns, executors, or administrators will at any time upon request, without further or additional consideration, but at the expense of ASSIGNEE, its successors and assigns, communicate to ASSIGNEE, its successors and assigns, any facts known to ASSIGNORS respecting said invention, and testify in any legal proceedings, sign any lawful papers, execute any original, divisional, continuation, and continuation-in-part applications, make any rightful oaths or declarations, and generally do such additional acts as ASSIGNEE, its successors and assigns, may deem necessary or desirable to obtain and enforce proper protection for said invention throughout the world;

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IN TESTIMONY WHEREOF, ASSIGNORS hereunto set their hands on the under-mentioned date, and deliver this Assignment.

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	Zachary Lee Helgeson				
Date:	Alexander Carson Houck	<u></u>			
Date:	John Son Her	······			
	John Son Her				
Date:	Salome A. Gonzalez	***************************************			
Date:	Somally Mom	 .			
Date:	Brian Michael Monahan	i			
Assignors' Initials	Litan intende intomator	£	y.	ž	,

Page 2 of 9

	Neil David Hawkinson
Date: 11/6/2014	James Reginald Nigg
Date:	James Clayton Marrs
Date:	Xuan Yen Khieu
Date:	Troy Terrance Tegg
Date:	Jill LaFavor
personally appeared Zachar evidence to be the person was acknowledged to me that he	ME, a Notary Public in and for the under-mentioned place, y Lee Helgeson, who proved to me on the basis of satisfactory hose name is subscribed to the foregoing assignment and executed the same in his authorized capacity and n of the same was a free will act and deed.
personally appeared Zachar evidence to be the person wacknowledged to me that he acknowledged that execution	y Lee Helgeson, who proved to me on the basis of satisfactory hose name is subscribed to the foregoing assignment and executed the same in his authorized capacity and n of the same was a free will act and deed. (County/City/State)
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to be the person whose name	ME, a Notary Public in and for the under A. Gonzalez, who proved to me on the less is subscribed to the foregoing assignment his authorized capacity and acknowledged.	basis of satisfactory evidence ent and acknowledged to me
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personally appeared Somally the person whose name is su	y Mom, who proved to me on the basis of bscribed to the foregoing assignment an authorized capacity and acknowledged to	of satisfactory evidence to be id acknowledged to me that
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personally appeared Neil Da evidence to be the person wh	ME, a Notary Public in and for the under vid Hawkinson, who proved to me on the lose name is subscribed to the foregoing executed the same in his authorized capafree will act and deed.	e basis of satisfactory , assignment and
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personally appeared James R evidence to be the person wh	ME, a Notary Public in and for the under teginald Nigg, who proved to me on the tose name is subscribed to the foregoing executed the same in his authorized cap free will act and deed.	basis of satisfactory assignment and
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1/31//9 (Commission Expiry Date)	Smile Vojb (Notary Public: Signature and Name)	SEAL
personally appeared James C evidence to be the person wh	ME, a Notary Public in and for the under Clayton Marrs, who proved to me on the nose name is subscribed to the foregoing	basis of satisfactory sassignment and
acknowledged to me that he execution of the same was a	executed the same in his authorized cap free will act and deed.	acity and acknowledged that
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personally appeared Xuan Y be the person whose name is	ME, a Notary Public in and for the under- en Khieu, who proved to me on the basis subscribed to the foregoing assignment his authorized capacity and acknowledge deed.	of satisfactory evidence to and acknowledged to me
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personally appeared Troy Te to be the person whose name	ME, a Notary Public in and for the under- errance Tegg, who proved to me on the basis is subscribed to the foregoing assignme his authorized capacity and acknowledgedeed.	asis of satisfactory evidence nt and acknowledged to me
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Assignors' Initials		11

personally appeared Jill LaF the person whose name is su	ME, a Notary Public in and for the under-navor, who proved to me on the basis of salescribed to the foregoing assignment and authorized capacity and acknowledged the	tisfactory evidence to be acknowledged to me that
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ASSIGNMENT

WHEREAS, WE, Zachary Lee Helgeson of 2106 35th Street E. Minneapolis, Minnesota 55407, United States of America; Alexander Carson Houck of 229 13th Avenue N., Hopkins, Minnesota 55343, United States of America; John Son Her of 6724 Adair Avenue North, Brooklyn Park, Minnesota 55429, United States of America; Salome A. Gonzalez of 13301 Maple Knoll Way #1610, Maple Grove, Minnesota 55369, United States of America; Somally Mom of 6155 140th Street W., Savage, Minnesota 55378, United States of America; Brian Michael Monahan of 12488 194th Lane NW., Elk River, Minnesota 55330, United States of America; Neil David Hawkinson of 7334 149th Avenue, Ramsey, Minnesota 55303, United States of America; James Reginald Nigg of 9249 97th Street SW., Howard Lake, Minnesota 55349, United States of America; James Clayton Marrs of 1748 Chatham Avenue, Arden Hills, Minnesota 55112, United States of Amrica; Xuan Yen Khieu of 7300 Inland Lane North, Maple Grove, Minnesota 55311, United States of America; Troy Terrance Tegg of 19307 Baldwin Street, Elk River, Minnesota 55330, United States of America; and Jill LaFavor of 16700 Seymour Drive, Minnetonka, Minnesota 55345, United States of America, hereinafter ASSIGNORS, have invented certain new and useful improvements in elongate medical device including chamfered ring electrode and variable shaft, for which United States provisional patent application number 61/936,677 was filed on 06 February 2014;

AND WHEREAS St. Jude Medical, Cardiology Division, Inc., a corporation organized and existing under the laws of Delawarc, and having a business address at 177 East County Road B, St. Paul, MN 55117, hereinafter ASSIGNEE, is desirous of acquiring the entire right, title, and interest in, to, and under said invention, said application, and any and all patents to be obtained therefore throughout the world;

NOW, THEREFORE, for and in consideration of good and valuable consideration to us in hand paid by ASSIGNEE, the receipt of which is hereby acknowledged, we have sold, assigned, and transferred, and by these presents do hereby sell, assign, and transfer unto ASSIGNEE, its successors and assigns, our entire right, title, and interest in and to said invention, said application, all divisions, continuations, continuations-in-part, reissues, or renewals thereof, and said patents, both foreign and domestic, that may or shall issue, including all of our entire rights under any and all international conventions;

AND WE HEREBY authorize ASSIGNEE, its successors and assigns, or anyone it may properly designate, to apply for patents, in its own name if desired, in any and all foreign countries, and additionally to claim the filing date of said United States application and otherwise take advantage of the provisions of any and all international conventions;

AND WE HEREBY authorize and request any official of any State whose duty consists of issuing patents, or other evidence or forms of any industrial property protection on any aforesaid application, to issue same to ASSIGNEE, its successors and assigns, in accordance herewith:

AND WE HEREBY covenant and agree with ASSIGNEE, its successors and assigns, that we have the full right to convey the entire interest assigned herein, and that we have not

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executed, and will not execute, any agreement in conflict herewith, and that we will not do any other act whatsoever conflicting with these presents, and that we or our successors, assigns, executors, or administrators will at any time upon request, without further or additional consideration, but at the expense of ASSIGNEE, its successors and assigns, communicate to ASSIGNEE, its successors and assigns, any facts known to ASSIGNORS respecting said invention, and testify in any legal proceedings, sign any lawful papers, execute any original, divisional, continuation, and continuation-in-part applications, make any rightful oaths or declarations, and generally do such additional acts as ASSIGNEE, its successors and assigns, may deem necessary or desirable to obtain and enforce proper protection for said invention throughout the world;

AND WE HEREBY FURTHER covenant and agree that this Assignment is effective as of 06 February 2014.

IN TESTIMONY WHEREOF, ASSIGNORS hereunto set their hands on the under-mentioned date, and deliver this Assignment.

Date:	· · · · · · · · · · · · · · · · · · ·
	Zachary Lee Helgeson
Date:	Alexander Carson Houck
Date: 12/10/2014	John Son Her
Date:	Salome A. Gonzalez
Date:	Somally Mom
Date:	Brian Michael Monahan
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Date:	Neil David Hawkinson	<u>-</u>
Date:	James Reginald Nigg	_
Date:	James Clayton Marrs	_
Date:	Xuan Yen Khieu	· -
Date:	Troy Terrance Tegg	_
Date:	Jill LaFavor	_
personally appeared Zachar evidence to be the person w acknowledged to me that he	ME, a Notary Public in and for the under y Lee Helgeson, who proved to me on the hose name is subscribed to the foregoing executed the same in his authorized capen of the same was a free will act and decomposed.	ne basis of satisfactory g assignment and bacity and
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assignment and acknowledge	der Carson Houck, who proved to me on the basis of the person whose name is subscribed to the foregoing ed to me that he executed the same in his authorized capacity ution of the same was a free will act and deed.	y
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personally appeared John So the person whose name is su	ME, a Notary Public in and for the under-mentioned place, on Her, who proved to me on the basis of satisfactory eviden abscribed to the foregoing assignment and acknowledged to authorized capacity and acknowledged that execution of the	me that
	Ham Conta Minosala	
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12/10/20(4 (Date) 01/21/20(0 (Commission Expiry Date)	WICHOLAS MACI	EJ S SOTA 11, 2016 12, 2016

TODAY, BEFORE ME, a Notary Public in and for the under-mentioned place, personally appeared Salome A. Gonzalez, who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the foregoing assignment and acknowledged to me that he executed the same in his authorized capacity and acknowledged that execution of the same was a free will act and deed.		
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personally appeared Somally the person whose name is su	ME, a Notary Public in and for the under-mentioned place, Mom, who proved to me on the basis of satisfactory evidence to be bscribed to the foregoing assignment and acknowledged to me that authorized capacity and acknowledged that execution of the same	
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TODAY, BEFORE ME, a Notary Public in and for the under-mentioned place, personally appeared Brian Michael Monahan, who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the foregoing assignment and acknowledged to me that he executed the same in his authorized capacity and acknowledged that execution of the same was a free will act and deed.			
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TODAY, BEFORE ME, a Notary Public in and for the under-mentioned place, personally appeared Neil David Hawkinson, who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the foregoing assignment and acknowledged to me that he executed the same in his authorized capacity and acknowledged that execution of the same was a free will act and deed.			
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personally appeared James R evidence to be the person wh	ME, a Notary Public in and for the under teginald Nigg, who proved to me on the nose name is subscribed to the foregoing executed the same in his authorized capa free will act and deed.	basis of satisfactory assignment and		
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(Commission Expiry Date)	(Notary Public: Signature and Name)			
TODAY, BEFORE ME, a Notary Public in and for the under-mentioned place, personally appeared James Clayton Marrs, who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the foregoing assignment and acknowledged to me that he executed the same in his authorized capacity and acknowledged that execution of the same was a free will act and deed.				
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Assignors' Initials				

TODAY, BEFORE ME, a Notary Public in and for the under-mentioned place, personally appeared Xuan Yen Khieu, who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the foregoing assignment and acknowledged to me that he executed the same in his authorized capacity and acknowledged that execution of the same was a free will act and deed.				
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(Commission Expiry Date)	(Notary Fuorio, Signature and Name)			
TOD IV DUFOUE				
TODAY, BEFORE ME, a Notary Public in and for the under-mentioned place, personally appeared Troy Terrance Tegg, who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the foregoing assignment and acknowledged to me that he executed the same in his authorized capacity and acknowledged that execution of the same was a free will act and deed.				
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TODAY, BEFORE ME, a Notary Public in and for the under-mentioned place, personally appeared Jill LaFavor, who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the foregoing assignment and acknowledged to me that she executed the same in her authorized capacity and acknowledged that execution of the same was a free will act and deed.				
(Date)	(County/City/State)	SEAL		
(Commission Expiry Date)	(Notary Public: Signature and Name)			

Assignors' Initials



ASSIGNMENT

WHEREAS, I, Israel A. Byrd of 7104 Stevens Avenue, Richfield, Minnesota 55423, along with Zachary Lee Helgeson of 7432 Elliot Ave. So., Richfield, Minnesota 55423; Alexander Carson Houck of 229 13th Avenue N., Hopkins, Minnesota 55343; John Son Her of 6724 Adair Avenue North, Brooklyn Park, Minnesota 55429; Salome A. Gonzalez of 13301 Maple Knoll Way #1610, Maple Grove, Minnesota 55369; Somally Mom of 6155 140th Street W., Savage, Minnesota 55378; Brian Michael Monahan of 12488 194th Lane NW, Elk River, Minnesota 55330; Neil David Hawkinson of 7334 149th Avenue, Ramsey, Minnesota 55303; James Reginald Nigg of 9249 97th Street SW, Howard Lake, Minnesota 55349; James Clayton Marrs of 1748 Chatham Avenue, Arden Hills, Minnesota 55112; Xuan Yen Khieu of 7300 Inland Lane North, Maple Grove, Minnesota 55331; Troy Terrance Tegg of 19307 Baldwin Street, Elk River, Minnesota 55330; and Jill LaFavor of 16700 Seymour Drive, Minnetonka, Minnesota 55345; hereinafter ASSIGNORS, have invented certain new and useful improvements in Elongate medical device including chamfered ring electrode and variable shaft, for which United States provisional patent application number 61/936,677 was filed on 06 February 2014. and International patent application number PCT/US2015/014254 was filed on 03 February 2015;

AND WHEREAS St. Jude Medical, Cardiology Division, Inc., a corporation organized and existing under the laws of the State of Delaware, and having a business address at 177 East County Road B, St. Paul, Minnesota 55117, hereinafter ASSIGNEE, is desirous of acquiring the entire right, title, and interest in, to, and under said invention, said application, and any and all patents to be obtained therefore throughout the world;

NOW, THEREFORE, for and in consideration of good and valuable consideration to me in hand paid by ASSIGNEE, the receipt of which is hereby acknowledged, I have sold, assigned, and transferred, and by these presents do hereby sell, assign, and transfer unto ASSIGNEE, its successors and assigns, my entire right, title, and interest in and to said invention, said application, all divisions, continuations, continuations-in-part, reissues, or renewals thereof, and said patents, both foreign and domestic, that may or shall issue, including all of my entire rights under any and all international conventions;

AND I HEREBY authorize ASSIGNEE, its successors and assigns, or anyone it may properly designate, to apply for patents, in its own name if desired, in any and all foreign countries, and additionally to claim the filing date of said United States application and otherwise take advantage of the provisions of any and all international conventions;

AND I HEREBY authorize and request any official of any State whose duty consists of issuing patents, or other evidence or forms of any industrial property protection on any aforesaid application, to issue same to ASSIGNEE, its successors and assigns, in accordance herewith;

AND I HEREBY authorize ASSIGNEE, its successors and assigns, or anyone it may properly designate, to insert into this instrument the application number and filing date of said U.S. patent application once known;



AND I HEREBY covenant and agree with ASSIGNEE, its successors and assigns, that I have the full right to convey the entire interest assigned herein, and that I have not executed, and will not execute, any agreement in conflict herewith, and that I will not do any other act whatsoever conflicting with these presents, and that I or my successors, assigns, executors, or administrators will at any time upon request, without further or additional consideration, but at the expense of ASSIGNEE, its successors and assigns, communicate to ASSIGNEE, its successors and assigns, any facts known to ASSIGNOR respecting said invention, and testify in any legal proceedings, sign any lawful papers, execute any original, divisional, continuation, and continuation-in-part applications, make any rightful oaths or declarations, and generally do such additional acts as ASSIGNEE, its successors and assigns, may deem necessary or desirable to obtain and enforce proper protection for said invention throughout the world;

AND I HEREBY FURTHER covenant and agree that this Assignment is effective as of 06 February 2014.

IN TESTIMONY WHEREOF, ASSIGNOR hereunto sets his hand on the under-mentioned day and year, and delivers this Assignment.

Date: 1/AUG2016 Israel A. Byrd

TODAY, BEFORE ME, a Notary Public in and for the under-mentioned place, personally appeared Israel A. Byrd, who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the foregoing assignment and acknowledged to me that he executed the same in his authorized capacity and acknowledged that execution of the same was a free will act and deed.

Aug. 11, 2016 Kamsy / St. Paw/Minnesota
(County/City/State)

Jilian Kay Awe NOTARY PUBLIC State of Minnesota

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Commission Expiry Date)

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