

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT3989293

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
JOHN W. SLIWA	05/02/2016
JOSEPH M. SCHMITT	06/27/2016
YU LIU	07/02/2016
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	ST. JUDE MEDICAL, CARDIOLOGY DIVISION, INC.
<b>Street Address:</b>	177 EAST COUNTY ROAD B
<b>City:</b>	ST. PAUL
<b>State/Country:</b>	MINNESOTA
<b>Postal Code:</b>	55117
<b>PROPERTY NUMBERS Total: 2</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	61970735
<b>Application Number:</b>	14668574
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(651)756-2808
<i>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.</i>	
<b>Phone:</b>	6517562000
<b>Email:</b>	jawe@sjm.com
<b>Correspondent Name:</b>	STEVEN R. FUNK
<b>Address Line 1:</b>	ST. JUDE MEDICAL, CD, INC.
<b>Address Line 2:</b>	177 EAST COUNTY ROAD B
<b>Address Line 4:</b>	ST. PAUL, MINNESOTA 55117
<b>ATTORNEY DOCKET NUMBER:</b>	CD-880
<b>NAME OF SUBMITTER:</b>	JILLIAN K. AWE
<b>SIGNATURE:</b>	/Jillian K. Awe/
<b>DATE SIGNED:</b>	08/02/2016
<b>Total Attachments: 10</b>	
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source=Fully\_Executed\_Assignment#page10.tif

## ASSIGNMENT

WHEREAS, WE, John W. Sliwa of 38 North Almaden Blvd #2001, San Jose, California 95110; Joseph M. Schmitt of 180 River Road, Andover, Massachusetts 01810; and Yu Liu of 48 Marblehead, Irvine, California 92620, hereinafter ASSIGNORS, have invented certain new and useful improvements in SINGLE FIBER FORCE-SENSING OF BOTH AXIAL AND BENDING CATHETER TIP FORCES, for which United States patent application number 61/970,735 was filed on 26 March 2014, and US patent application number 14/668,574 was filed on 25 March 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;

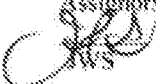
NOW, THEREFORE, for and in consideration of good and valuable consideration to us in hand paid by ASSIGNEE, the receipt of which is hereby acknowledged, we have sold, assigned, and transferred, and by these presents do hereby sell, assign, and transfer unto ASSIGNEE, its successors and assigns, our entire 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 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;

Assignors' Initials

 JWS / JMS YL

AND WE HEREBY FURTHER covenant and agree that this Assignment is effective as of 26 March 2014.

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

Date: May 2, 2016   
John W. Sliwa

Date: \_\_\_\_\_  
Joseph M. Schmitt

Date: \_\_\_\_\_  
Yu Liu

*attached on Notary cert*

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

TODAY, BEFORE ME, a Notary Public in and for the under-mentioned place, personally appeared John W. Sliwa, 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.

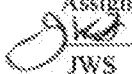
I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

\_\_\_\_\_  
(Date) (County/City/State)

SEAL

\_\_\_\_\_  
(Commission Expiry Date) (Notary Public: Signature and Name)

Assignors' Initials

 JWS JMS YL

# CALIFORNIA ALL PURPOSE ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California

County of Santa Clara


On 5/2/16 before me, Sunita Singh, Notary Public,  
Date Name and Title of Officer

personally appeared John W. Shiwa  
(Name of Signer(s))

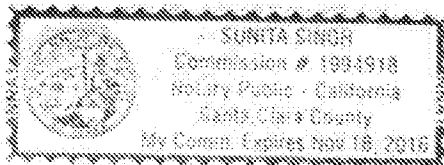
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal

  
Signature of Notary Public

My Commission Expires: Nov 18, 2016



*Assignment*

SFBayNotary.com

PATENT  
REEL: 039318 FRAME: 0281

TODAY, BEFORE ME, a Notary Public in and for the under-mentioned place, personally appeared Joseph M. Schmitt, 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.

(Date)

(County/City/State)

SEAL

(Commission Expiry Date)

(Notary Public: Signature and Name)

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TODAY, BEFORE ME, a Notary Public in and for the under-mentioned place, personally appeared Yu Liu, 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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(Date)

(County/City/State)

SEAL

(Commission Expiry Date)

(Notary Public: Signature and Name)

Assignors' Initials

JWS

JMS

YL

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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 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 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;

Assignors' Initials

JWS / JMS / YL

AND WE HEREBY FURTHER covenant and agree that this Assignment is effective as of 26 March 2014.

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

Date: \_\_\_\_\_  
John W. Sliwa

Date: June 27, 2016 Joseph M. Schmitt  
Joseph M. Schmitt

Date: \_\_\_\_\_  
Yu Liu

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

TODAY, BEFORE ME, a Notary Public in and for the under-mentioned place, personally appeared John W. Sliwa, 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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\_\_\_\_\_  
(Date) (County/City/State)

SEAL

\_\_\_\_\_  
(Commission Expiry Date) (Notary Public: Signature and Name)

Assignors' Initials

JWS JMS YL



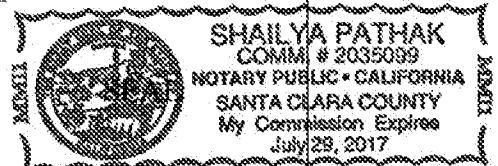
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JUNE 27, 2016  
(Date)

SANTA CLARA / CUPERTINO / CALIFORNIA  
(County/City/State)



7/29/2017  
(Commission Expiry Date)

Shailya Pathak, SHAILYA PATHAK  
(Notary Public: Signature and Name)

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(Date)

\_\_\_\_\_  
(County/City/State)

SEAL

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(Commission Expiry Date)

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(Notary Public: Signature and Name)

Assignors' Initials

JMS  
JWS    JMS    YL

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Date: \_\_\_\_\_  
John W. Sliwa

Date: \_\_\_\_\_  
Joseph M. Schmitt

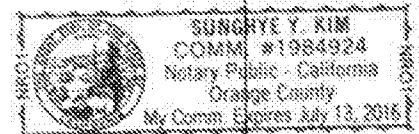
Date: 7/2/2016 [Signature]  
Yu Liu

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July 2, 2016 Orange County, Irvine, CA  
(Date) (County/City/State)



SEAL

07/13/2016 [Signature] Sunghee Y. Kim  
(Commission Expiry Date) (Notary Public: Signature and Name)

Assignors' Initials

JWS JMS YL

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\_\_\_\_\_  
(Date)

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(County/City/State)

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(Notary Public: Signature and Name)

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JWS

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Page 3 of 3