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| <b>PATENT ASSIGNMENT COVER SHEET</b> |
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Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT4659323

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| <b>SUBMISSION TYPE:</b>   | NEW ASSIGNMENT                                       |
| <b>NATURE OF CONVEYANCE:</b>  | ASSIGNMENT   |
| <b>CONVEYING PARTY DATA</b>   |  |
| <b>Name</b>   | <b>Execution Date</b>                                |
| RICHARD E. STEHR  | 10/24/2011   |
| MARTIN M. GRASSE  | 10/31/2011   |
| <b>RECEIVING PARTY DATA</b>   |  |
| <b>Name:</b>  | ST. JUDE MEDICAL, ATRIAL FIBRILLATION DIVISION, INC. |
| <b>Street Address:</b>  | ONE ST. JUDE MEDICAL DRIVE                           |
| <b>City:</b>  | ST. PAUL   |
| <b>State/Country:</b>   | MINNESOTA  |
| <b>Postal Code:</b>   | 55117-9913   |
| <b>PROPERTY NUMBERS Total: 1</b>  |  |
| <b>Property Type</b>  | <b>Number</b>  |
| <b>Application Number:</b>  | 13201052   |
| <b>CORRESPONDENCE DATA</b>  |  |
| <b>Fax Number:</b>  |  |
| <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>Email:</b>   | MN_IPMAIL@DYKEMA.COM                                 |
| <b>Correspondent Name:</b>  | REED R. HEIMBECHER, DYKEMA GOSSETT PLLC              |
| <b>Address Line 1:</b>  | 90 SOUTH SEVENTH STREET                              |
| <b>Address Line 2:</b>  | 4000 WELLS FARGO CENTER                              |
| <b>Address Line 4:</b>  | MINNEAPOLIS, MINNESOTA 55402                         |
| <b>ATTORNEY DOCKET NUMBER:</b>  | 0F-050301US  |
| <b>NAME OF SUBMITTER:</b>   | ANNE R. CARLBERG                                     |
| <b>SIGNATURE:</b>   | /ANNE R. CARLBERG/                                   |
| <b>DATE SIGNED:</b>   | 10/26/2017   |
| <b>Total Attachments: 6</b>   |  |
| source=Executed_AST_Stehr#page1.tif   |  |
| source=Executed_AST_Stehr#page2.tif   |  |
| source=Executed_AST_Stehr#page3.tif   |  |
| source=Executed_AST_Grasse#page1.tif  |  |
| source=Executed_AST_Grasse#page2.tif  |  |



## ASSIGNMENT

WHEREAS, WE, Richard E. Stehr of 771 Fischer Circle, Stillwater, Minnesota 55082 and Martin M. Grasse of 265 Western Avenue, Apt. 3, Cambridge, Massachusetts 02139, hereinafter ASSIGNORS, have invented certain new and useful improvements in Ablation catheter and method for electrically isolating cardiac tissue, for which United States patent application number 13/201,052 was filed on 11 August 2011;

AND WHEREAS St. Jude Medical, Atrial Fibrillation Division, Inc., a corporation organized and existing under the laws of the State of Minnesota, and having a business address at One St. Jude Medical Drive, St. Paul, Minnesota 55117-9913, 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 therefor 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;

AND WE HEREBY FURTHER covenant and agree that this Assignment is effective as of 11 August 2011.

Assignors' Initials  
RES/

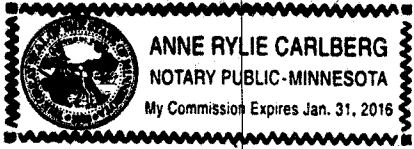
IN TESTIMONY WHEREOF, ASSIGNORS hereunto set their hands on the under-mentioned day and year, and deliver this Assignment.

Date: 24 Oct 2011 Richard E Stehr  
Richard E. Stehr

Date: \_\_\_\_\_  
Martin M. Grasse

TODAY, BEFORE ME, a Notary Public in and for the under-mentioned place, personally appeared Richard E. Stehr, 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.

24 October 2011 Ramsey / St. Paul / Minnesota  
(Date) (County/City/State)



31 January 2016 Anne R. Carlberg  
(Commission Expiry Date) (Notary Public: Signature and Name)

TODAY, BEFORE ME, a Notary Public in and for the under-mentioned place, personally appeared Martin M. Grasse, 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)

Assignors' Initials  
RES

SAID ASSIGNEE HEREBY acknowledges the aforesaid statements and accepts the aforesaid Assignment, transfer, and set over of said invention;

AND, IN TESTIMONY WHEREOF, said ASSIGNEE hereunto sets its hand on the under-mentioned day and year.

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

\_\_\_\_\_  
(ASSIGNEE: Signature)

Stephen A. Tight  
Vice President and General Counsel  
St. Jude Medical, Atrial Fibrillation Division, Inc.

\_\_\_\_\_  
(Witness: Signature)

Printed name: \_\_\_\_\_

TODAY, BEFORE ME, a Notary Public in and for the under-mentioned place, personally appeared Stephen A. Tight, 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)

Assignors' Initials  
RES/

## ASSIGNMENT

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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;

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;

AND WE HEREBY FURTHER covenant and agree that this Assignment is effective as of 11 August 2011.

Assignors' Initials  
mg / \_\_\_\_\_

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

Date: \_\_\_\_\_  
Richard E. Stehr

Date: 10/31/2011  
[Signature]  
Martin M. Grasse

TODAY, BEFORE ME, a Notary Public in and for the under-mentioned place, personally appeared Richard E. Stehr, 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

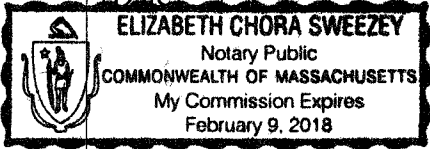
\_\_\_\_\_  
(Commission Expiry Date) (Notary Public: Signature and Name)

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

October 31, 2011  
(Date) Suffolk, Boston, Massachusetts  
(County/City/State)

SEAL

[Signature]  
(Notary Public: Signature and Name)



Assignors' Initials  
mmg /

SAID ASSIGNEE HEREBY acknowledges the aforesaid statements and accepts the aforesaid Assignment, transfer, and set over of said invention;

AND, IN TESTIMONY WHEREOF, said ASSIGNEE hereunto sets its hand on the under-mentioned day and year.

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

\_\_\_\_\_  
(ASSIGNEE: Signature)

Stephen A. Tight  
Vice President and General Counsel  
St. Jude Medical, Atrial Fibrillation Division, Inc.

\_\_\_\_\_  
(Witness: Signature)

Printed name: \_\_\_\_\_

TODAY, BEFORE ME, a Notary Public in and for the under-mentioned place, personally appeared Stephen A. Tight, 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)

Assignors' Initials  
MM / \_\_\_\_\_ /