

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

EPAS ID: PAT5338312

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
PETER N. BRAIDO	05/05/2015
KENT J. SMITH	04/22/2015
ANDREA L. MCCARTHY	04/21/2015
MINA S. FAHIM	05/19/2015
<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: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	16254000
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(908)654-7866
<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>	(908) 654-5000
<b>Email:</b>	assignment@lerner david.com
<b>Correspondent Name:</b>	LERNER, DAVID, LITTENBERG, KRUMHOLZ & MENTLIK, LLP
<b>Address Line 1:</b>	600 SOUTH AVENUE WEST
<b>Address Line 4:</b>	WESTFIELD, NEW JERSEY 07090
<b>ATTORNEY DOCKET NUMBER:</b>	STJUDE 3.0F-329 DIV
<b>NAME OF SUBMITTER:</b>	KATHLEEN REYNOLDS
<b>SIGNATURE:</b>	/Kathleen Reynolds/
<b>DATE SIGNED:</b>	01/23/2019
<b>Total Attachments: 4</b>	
source=STJUDE 3.0F-329 DIV (2632) Assignment#page1.tif	
source=STJUDE 3.0F-329 DIV (2632) Assignment#page2.tif	
source=STJUDE 3.0F-329 DIV (2632) Assignment#page3.tif	



<b>ASSIGNMENT OF UTILITY APPLICATION</b>	Docket Number (Optional) <b>STJUDE 3.0F-329 (E)</b>
--	--

Whereas, I, Peter N. Braido of 21460 Heidelberg St. NE: Wyoming, Minnesota 55092

hereafter referred to as assignor, have with others invented certain new and useful improvements in LEAFLET ABRASION MITIGATION IN PROSTHETIC HEART VALVES

for which an application for a United States Letters Patent was filed on April 13, 2015

Application Number 14/684,589

for which an application for a United States Letters Patent was executed by me on \_\_\_\_\_ and

Whereas, St. Jude Medical, Cardiology Division, Inc. a corporation of Delaware herein referred to as "assignee" whose mailing address is 177 East County Road B: St. Paul, Minnesota 55117 is desirous of acquiring the entire right, title and interest in the same;

NOW, THEREFORE, in consideration of the sum of one dollars (\$ 1.00 ), the receipt whereof is acknowledged, and other good and valuable consideration, I as assignor hereby sell, assign and set over to said assignee my entire right, title and interest for the United States of America and all other countries in and to said invention and the aforesaid utility patent application and all original, divisional, continuation, continuation-in-part, substitute or reissue applications and patents applied for or granted therefor in the United States of America and all other countries, for said invention, including without limitation all applications and patents for said invention claiming priority or benefit of the aforesaid utility application pursuant to any law or treaty, and including the right to claim such priority or benefit and the Commissioner of Patents and Trademarks is hereby authorized and requested to issue all patents on said improvements or resulting therefrom to said assignee herein, as assignee of the entire interest therein; and the undersigned for me and my legal representatives, heirs and assigns do hereby agree and covenant without further remuneration, to execute and deliver all original, divisional, continuation, reissue and other applications for Letters Patent on said improvements and all assignments thereof to said assignee or its assigns, to communicate to said assignee or its representatives all facts known to the undersigned respecting said improvements, whenever requested, to testify in any interferences or other legal proceedings in which any of said applications or patents may become involved, to sign all lawful papers, make all rightful oaths, and to do generally everything necessary to aid assignee, its successors, assigns and nominees to obtain patent protection for said improvements in all countries, the expenses incident to said applications to be borne and paid by said assignee.

And I do hereby authorize my attorneys to insert on this deed the filing date and application number of said application when known.

5 May 2015  
(Date)

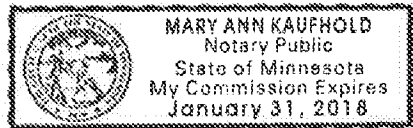
Peter N. Braido  
(Signature)

State of Minnesota ) SS.  
County of Hennepin )

On this 5th day of May 2015 before me personally came the above-named Peter N. Braido, to me personally known as the individual who executed the foregoing instrument, who acknowledged to me that the same was executed by him/her of his/her own free will for the purposes therein set forth.

Mary Ann Kaufhold  
(Notary Public)

\*Total of 4 forms are submitted. LD-530/



**ASSIGNMENT OF UTILITY APPLICATION**

Docket Number (Optional)  
STJUDE 3.0F-329 (E)

Whereas, I, Kent J. Smith of  
680 White Birch Drive, Shoreview, Minnesota 55126  
hereafter referred to as assignor, have with others invented certain new and useful improvements in  
LEAFLET ABRASION MITIGATION IN PROSTHETIC HEART VALVES  
 for which an application for a United States Letters Patent was filed on April 13, 2015  
Application Number 14/684,589  
 for which an application for a United States Letters Patent was executed by me on \_\_\_\_\_  
and

Whereas, St. Jude Medical, Cardiology Division, Inc.  
a corporation of Delaware herein referred to as "assignee" whose mailing address is  
177 East County Road B, St. Paul, Minnesota 55117  
is desirous of acquiring the entire right, title and interest in the same;

NOW, THEREFORE, in consideration of the sum of one dollars (\$ 1.00 ), the receipt whereof is acknowledged, and other good and valuable consideration, I as assignor hereby sell, assign and set over to said assignee my entire right, title and interest for the United States of America and all other countries in and to said invention and the aforesaid utility patent application and all original, divisional, continuation, continuation-in-part, substitute or reissue applications and patents applied for or granted therefor in the United States of America and all other countries, for said invention, including without limitation all applications and patents for said invention claiming priority or benefit of the aforesaid utility application pursuant to any law or treaty, and including the right to claim such priority or benefit and the Commissioner of Patents and Trademarks is hereby authorized and requested to issue all patents on said improvements or resulting therefrom to said assignee herein, as assignee of the entire interest therein; and the undersigned for me and my legal representatives, heirs and assigns do hereby agree and covenant without further remuneration, to execute and deliver all original, divisional, continuation, reissue and other applications for Letters Patent on said improvements and all assignments thereof to said assignee or its assigns, to communicate to said assignee or its representatives all facts known to the undersigned respecting said improvements, whenever requested, to testify in any interferences or other legal proceedings in which any of said applications or patents may become involved, to sign all lawful papers, make all rightful oaths, and to do generally everything necessary to aid assignee, its successors, assigns and nominees to obtain patent protection for said improvements in all countries, the expenses incident to said applications to be borne and paid by said assignee.

And I do hereby authorize my attorneys to insert on this deed the filing date and application number of said application when known.

22 April 2015 (Date) Kent J. Smith (Signature)

State of Minnesota ) SS:  
County of Plymouth )

On this 22<sup>nd</sup> day of April, 2015 before me personally came the above-named Kent J. Smith, to me personally known as the individual who executed the foregoing instrument, who acknowledged to me that the same was executed by him/her of his/her own free will for the purposes therein set forth.

[Signature]  
(Notary Public)



\*Total of 4 forms are submitted. LD-530/

ASSIGNMENT OF UTILITY APPLICATION

Docket Number (Optional)

STJUDE 3.0F-329 (E)

Whereas, I, Andrea L. McCarthy of 425 Springhill Road, Vadnais Heights, Minnesota 55127

hereafter referred to as assignor, have with others invented certain new and useful improvements in

LEAFLET ABRASION MITIGATION IN PROSTHETIC HEART VALVES

for which an application for a United States Letters Patent was filed on April 13, 2015

Application Number 14/684,589

for which an application for a United States Letters Patent was executed by me on \_\_\_\_\_ and \_\_\_\_\_

Whereas, St. Jude Medical, Cardiology Division, Inc. a corporation of Delaware herein referred to as "assignee" whose mailing address is 177 East County Road B; St. Paul, Minnesota 55117

is desirous of acquiring the entire right, title and interest in the same;

NOW, THEREFORE, in consideration of the sum of one dollars (\$ 1.00 ), the receipt whereof is acknowledged, and other good and valuable consideration, I as assignor hereby sell, assign and set over to said assignee my entire right, title and interest for the United States of America and all other countries in and to said invention and the aforesaid utility patent application and all original, divisional, continuation, continuation-in-part, substitute or reissue applications and patents applied for or granted therefor in the United States of America and all other countries, for said invention, including without limitation all applications and patents for said invention claiming priority or benefit of the aforesaid utility application pursuant to any law or treaty, and including the right to claim such priority or benefit and the Commissioner of Patents and Trademarks is hereby authorized and requested to issue all patents on said improvements or resulting therefrom to said assignee herein, as assignee of the entire interest therein; and the undersigned for me and my legal representatives, heirs and assigns do hereby agree and covenant without further remuneration, to execute and deliver all original, divisional, continuation, reissue and other applications for Letters Patent on said improvements and all assignments thereof to said assignee or its assigns, to communicate to said assignee or its representatives all facts known to the undersigned respecting said improvements, whenever requested, to testify in any interferences or other legal proceedings in which any of said applications or patents may become involved, to sign all lawful papers, make all rightful oaths, and to do generally everything necessary to aid assignee, its successors, assigns and nominees to obtain patent protection for said improvements in all countries, the expenses incident to said applications to be borne and paid by said assignee.

And I do hereby authorize my attorneys to insert on this deed the filing date and application number of said application when known.

21 Apr 15  
(Date)

Andrea McCarthy  
(Signature)

State of Minnesota ) SS:  
County of Ramsey )

On this 21st day of April 2015 before me personally came the above-named Andrea L. McCarthy, to me personally known as the individual who executed the foregoing instrument, who acknowledged to me that the same was executed by him/her of his/her own free will for the purposes therein set forth.

Mary Ann Kaufhold  
(Notary Public)

\*Total of 4 forms are submitted. LD-530/



# ASSIGNMENT OF UTILITY APPLICATION

Docket Number (Optional)  
STJUDE 3.0F-329 (E)

Whereas, I, Mina S. Fahim of  
5899 Hamline Ave. N.; Shoreview, Minnesota 55126

hereafter referred to as assignor, have with others invented certain new and useful improvements in

LEAFLET ABRASION MITIGATION IN PROSTHETIC HEART VALVES

for which an application for a United States Letters Patent was filed on April 13, 2015

Application Number 14/684,589

for which an application for a United States Letters Patent was executed by me on \_\_\_\_\_  
and

Whereas, St. Jude Medical, Cardiology Division, Inc.  
a corporation of Delaware herein referred to as "assignee" whose mailing address is  
177 East County Road B; St. Paul, Minnesota 55117

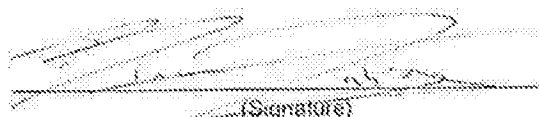
is desirous of acquiring the entire right, title and interest in the same;

NOW, THEREFORE, in consideration of the sum of one dollars (\$ 1.00 ), the receipt whereof is acknowledged, and other good and valuable consideration, I as assignor hereby sell, assign and set over to said assignee my entire right, title and interest for the United States of America and all other countries in and to said invention and the aforesaid utility patent application and all original, divisional, continuation, continuation-in-part, substitute or reissue applications and patents applied for or granted therefor in the United States of America and all other countries, for said invention, including without limitation all applications and patents for said invention claiming priority or benefit of the aforesaid utility application pursuant to any law or treaty, and including the right to claim such priority or benefit and the Commissioner of Patents and Trademarks is hereby authorized and requested to issue all patents on said improvements or resulting therefrom to said assignee herein, as assignee of the entire interest therein; and the undersigned for me and my legal representatives, heirs and assigns do hereby agree and covenant without further remuneration, to execute and deliver all original, divisional, continuation, reissue and other applications for Letters Patent on said improvements and all assignments thereof to said assignee or its assigns, to communicate to said assignee or its representatives all facts known to the undersigned respecting said improvements, whenever requested, to testify in any interferences or other legal proceedings in which any of said applications or patents may become involved, to sign all lawful papers, make all rightful oaths, and to do generally everything necessary to aid assignee, its successors, assigns and nominees to obtain patent protection for said improvements in all countries, the expenses incident to said applications to be borne and paid by said assignee.

And I do hereby authorize my attorneys to insert on this deed the filing date and application number of said application when known.

19 MAY 15

(Date)



(Signature)

State of Minnesota ) SS:  
County of Ramsey )

On this 19<sup>th</sup> day of May, 2015 before me personally came the above-named Mina S. Fahim, to me personally known as the individual who executed the foregoing instrument, who acknowledged to me that the same was executed by him/her of his/her own free will for the purposes therein set forth.

(Notary Public)

\*Total of 4 forms are submitted.

MARY ANN KAUFHOLD  
NOTARY PUBLIC  
State of Minnesota  
January 31, 2018