


Form PTO-1595 (Rev. 03-09)
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RECORDATION FORM COVER SHEET PATENTS ONLY

To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) below.

1. Name of conveying party(ies) Cassandra A. Piippo Svendsen Daniel J. Lee Rachel E. DeSmidt Jesse C. Darley Additional name(s) of conveying party(ies) attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	2. Name and address of receiving party(ies) Name: <u>CARDIOVASCULAR SYSTEMS, INC.</u> Internal Address: _____ _____ Street Address: <u>651 Campus Drive</u> _____ City: <u>St. Paul</u> State: <u>Minnesota</u> Country: <u>United States</u> Zip: <u>55112</u> Additional name(s) & address(es) attached? <input type="checkbox"/> Yes <input type="checkbox"/> No
3. Nature of conveyance/Execution Date(s): Execution Date(s) <u>7/22/10; 7/29/10; 7/29/10; 7/29/10</u> <input checked="" type="checkbox"/> Assignment <input type="checkbox"/> Merger <input type="checkbox"/> Security Agreement <input type="checkbox"/> Change of Name <input type="checkbox"/> Joint Research Agreement <input type="checkbox"/> Government Interest Assignment <input type="checkbox"/> Executive Order 9424, Confirmatory License <input type="checkbox"/> Other _____	4. Application or patent number(s): <input type="checkbox"/> This document is being filed together with a new application. A. Patent Application No.(s) 12/817354 B. Patent No.(s) Additional numbers attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
5. Name and address to whom correspondence concerning document should be mailed: Name: <u>Jeffrey R. Stone</u> Internal Address: <u>ALTERA LAW GROUP, LLC</u> _____ Street Address: <u>1700 US Bank Plaza S</u> <u>220 S 6 St</u> City: <u>Minneapolis</u> State: <u>MN</u> Zip: <u>55402</u> Phone Number: <u>612-436-3151</u> Fax Number: <u>952-912-0574</u> Email Address: _____	6. Total number of applications and patents involved: <u>1</u> 7. Total fee (37 CFR 1.21(h) & 3.41) \$ <u>40</u> <input checked="" type="checkbox"/> Authorized to be charged to deposit account <input type="checkbox"/> Enclosed <input type="checkbox"/> None required (government interest not affecting title) 8. Payment Information Deposit Account Number <u>501038</u> Authorized User Name <u>STONE, Jeffrey R.</u>
9. Signature:  _____ <div style="display: flex; justify-content: space-between;"> Signature August 2, 2010 </div> <div style="display: flex; justify-content: space-between;"> Jeffrey R. Stone Date </div> <div style="display: flex; justify-content: space-between;"> Name of Person Signing <div style="border: 1px solid black; padding: 2px;"> Total number of pages including cover sheet, attachments, and documents: 5 </div> </div>	

Documents to be recorded (including cover sheet) should be faxed to (571) 273-0140, or mailed to:
Mail Stop Assignment Recordation Services, Director of the USPTO, P.O.Box 1450, Alexandria, V.A. 22313-1450

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PATENT
REEL: 024777 FRAME: 0943

Aliona Ref. No.: 3330.173-US-01

PATENT ASSIGNMENT TO CORPORATION WORLDWIDE

WHEREAS, Cassandra A. Pilppo Svendsen, a citizen of the United States, residing at 4589 Victor Path, Unit #4, Hugo, Minnesota 55038;

hereafter referred to as "THE UNDERSIGNED", has made an invention entitled
ATHERECTOMY DEVICE, SYSTEM AND METHOD HAVING A BI-DIRECTIONAL DISTAL
EXPANDABLE ABLATION ELEMENT;

AND, WHEREAS, Cardiovascular Systems, Inc., hereafter referred to as ASSIGNEE, a corporation organized under the laws of Minnesota and whose place of business and business address is 651 Campus Drive, St. Paul, Minnesota 55112, is desirous of acquiring the entire right, title and interest in the same;

NOW, THEREFORE in consideration of the sum of One Dollar, the receipt whereof is acknowledged, and other good and valuable consideration, THE UNDERSIGNED hereby sells, assigns and transfers unto ASSIGNEE the full and exclusive right to the said invention in the United States and the entire right, title and interest in and to all divisionals, continuations, continuations in part, reissues, reexaminations or renewals thereof, all Letters Patent which may be granted therefrom, and all reissues or extension of such patents, and in and to any and all applications which have been or shall be filed in any foreign countries for Letters Patent on the said invention including an assignment of all rights under the provision of international conventions and all Letters Patent of foreign countries which may be granted therefrom; the UNDERSIGNED hereby authorizes the Commissioner of Patents to issue any and all United States Letters Patent for the aforesaid invention to ASSIGNEE of the entire right, title and interest in and to the same, for the use of the ASSIGNEE, its successors and assigns.

THE UNDERSIGNED, hereby agrees that THE UNDERSIGNED, his/her executors and legal representatives will make, execute and deliver (without charge but at the expense of the ASSIGNEE) any and all other instruments in writing including any and all further application papers, affidavits, assignments and other documents, and will communicate to said ASSIGNEE, its successors and representatives all facts known to THE UNDERSIGNED relating to said invention and the history thereof and will testify in all legal proceedings and generally do all things which may be necessary or desirable to vest the ASSIGNEE, its successors or assigns the entire right, title and interest in and to the said invention, applications, Letters Patent, rights, titles and benefits, privileges and advantages hereby sold, assigned and conveyed, or intended so to be.

THE UNDERSIGNED represents and agrees with said Assignee its successors and assignees, that no assignment grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been or will be made to others by THE UNDERSIGNED, and that full right to convey the same as herein expressed is possessed by THE UNDERSIGNED.

IN TESTIMONY WHEREOF, THE UNDERSIGNED has hereunto set her hand on the date indicated below.


Cassandra A. Pilppo Svendsen

7/22/10
Date

No Legalization Required

Allera Ref. No.: 3330.173-US-01

PATENT ASSIGNMENT TO CORPORATION WORLDWIDE

WHEREAS, Daniel J. Lee, a citizen of the United States, residing at 522 South Main St., Monticello, Minnesota 55701;

hereafter referred to as "THE UNDERSIGNED", has made an invention entitled
ATHERECTOMY DEVICE, SYSTEM AND METHOD HAVING A BI-DIRECTIONAL DISTAL
EXPANDABLE ABLATION ELEMENT;


AND, WHEREAS, Cardiovascular Systems, Inc., hereafter referred to as ASSIGNEE, a corporation organized under the laws of Minnesota and whose place of business and business address is 661 Campus Drive, St. Paul, Minnesota 55112, is desirous of acquiring the entire right, title and interest in the same;

NOW, THEREFORE in consideration of the sum of One Dollar, the receipt whereof is acknowledged, and other good and valuable consideration, THE UNDERSIGNED hereby sells, assigns and transfers unto ASSIGNEE the full and exclusive right to the said invention in the United States and the entire right, title and interest in and to all divisionals, continuations, continuations in part, reissues, reexaminations or renewals thereof, all Letters Patent which may be granted therefrom, and all reissues or extension of such patents, and in and to any and all applications which have been or shall be filed in any foreign countries for Letters Patent on the said invention including an assignment of all rights under the provision of international conventions and all Letters Patent of foreign countries which may be granted therefrom; the UNDERSIGNED hereby authorizes the Commissioner of Patents to issue any and all United States Letters Patent for the aforesaid invention to ASSIGNEE of the entire right, title and interest in and to the same, for the use of the ASSIGNEE, its successors and assigns.

THE UNDERSIGNED, hereby agrees that THE UNDERSIGNED, his/her executors and legal representatives will make, execute and deliver (without charge but at the expense of the ASSIGNEE) any and all other instruments in writing including any and all further application papers, affidavits, assignments and other documents, and will communicate to said ASSIGNEE, its successors and representatives all facts known to THE UNDERSIGNED relating to said invention and the history thereof and will testify in all legal proceedings and generally do all things which may be necessary or desirable to vest the ASSIGNEE, its successors or assigns the entire right, title and interest in and to the said invention, applications, Letters Patent, rights, titles and benefits, privileges and advantages hereby sold, assigned and conveyed, or intended so to be.

THE UNDERSIGNED represents and agrees with said Assignee its successors and assignees, that no assignment grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been or will be made to others by THE UNDERSIGNED, and that full right to convey the same as herein expressed is possessed by THE UNDERSIGNED.

IN TESTIMONY WHEREOF, THE UNDERSIGNED has hereunto set her hand on the date indicated below.


Daniel J. Lee

8/29/2010
Date

No Legalization Required

Alter Ref. No.: 3330.173-US-01

PATENT ASSIGNMENT TO CORPORATION WORLDWIDE

WHEREAS, Rachel E. DeSmidt, a citizen of the United States, residing at 611 S. Few St. #3, Madison, Wisconsin 53703;

hereafter referred to as "THE UNDERSIGNED", has made an invention entitled
ATHERECTOMY DEVICE, SYSTEM AND METHOD HAVING A BI-DIRECTIONAL DISTAL
EXPANDABLE ABLATION ELEMENT;

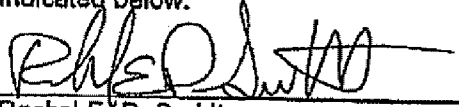
AND, WHEREAS, Cardiovascular Systems, Inc., hereafter referred to as ASSIGNEE, a corporation organized under the laws of Minnesota and whose place of business and business address is 651 Campus Drive, St. Paul, Minnesota 55112, is desirous of acquiring the entire right, title and interest in the same;

NOW, THEREFORE in consideration of the sum of One Dollar, the receipt whereof is acknowledged, and other good and valuable consideration, THE UNDERSIGNED hereby sells, assigns and transfers unto ASSIGNEE the full and exclusive right to the said invention in the United States and the entire right, title and interest in and to all divisions, continuations, continuations in part, reissues, reexaminations or renewals thereof, all Letters Patent which may be granted therefrom, and all reissues or extension of such patents, and in and to any and all applications which have been or shall be filed in any foreign countries for Letters Patent on the said invention including an assignment of all rights under the provision of international conventions and all Letters Patent of foreign countries which may be granted therefrom; the UNDERSIGNED hereby authorizes the Commissioner of Patents to issue any and all United States Letters Patent for the aforesaid invention to ASSIGNEE of the entire right, title and interest in and to the same, for the use of the ASSIGNEE, its successors and assigns.

THE UNDERSIGNED, hereby agrees that THE UNDERSIGNED, his/her executors and legal representatives will make, execute and deliver (without charge but at the expense of the ASSIGNEE) any and all other instruments in writing including any and all further application papers, affidavits, assignments and other documents, and will communicate to said ASSIGNEE, its successors and representatives all facts known to THE UNDERSIGNED relating to said invention and the history thereof and will testify in all legal proceedings and generally do all things which may be necessary or desirable to vest the ASSIGNEE, its successors or assigns the entire right, title and interest in and to the said invention, applications, Letters Patent, rights, titles and benefits, privileges and advantages hereby sold, assigned and conveyed, or intended so to be.

THE UNDERSIGNED represents and agrees with said Assignee its successors and assignees, that no assignment grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been or will be made to others by THE UNDERSIGNED, and that full right to convey the same as herein expressed is possessed by THE UNDERSIGNED.

IN TESTIMONY WHEREOF, THE UNDERSIGNED has hereunto set her hand on the date indicated below.


Rachel E. DeSmidt

07/29/2010
Date

No Legalization Required

Altera Ref. No.: 3330.173-US-01

PATENT ASSIGNMENT TO CORPORATION WORLDWIDE

WHEREAS, Jesse C. Darley, a citizen of the United States, residing at 110 Alden Drive, Madison, Wisconsin 53705;

hereafter referred to as "THE UNDERSIGNED", has made an invention entitled
ATHERECTOMY DEVICE, SYSTEM AND METHOD HAVING A BI-DIRECTIONAL DISTAL
EXPANDABLE ABLATION ELEMENT;

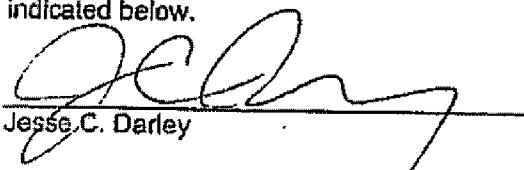
AND, WHEREAS, Cardiovascular Systems, Inc., hereafter referred to as ASSIGNEE, a corporation organized under the laws of Minnesota and whose place of business and business address is 651 Campus Drive, St. Paul, Minnesota 55112, is desirous of acquiring the entire right, title and interest in the same;

NOW, THEREFORE in consideration of the sum of One Dollar, the receipt whereof is acknowledged, and other good and valuable consideration, THE UNDERSIGNED hereby sells, assigns and transfers unto ASSIGNEE the full and exclusive right to the said invention in the United States and the entire right, title and interest in and to all divisionals, continuations, continuations in part, reissues, reexaminations or renewals thereof, all Letters Patent which may be granted therefrom, and all reissues or extension of such patents, and in and to any and all applications which have been or shall be filed in any foreign countries for Letters Patent on the said invention including an assignment of all rights under the provision of international conventions and all Letters Patent of foreign countries which may be granted therefrom; the UNDERSIGNED hereby authorizes the Commissioner of Patents to issue any and all United States Letters Patent for the aforesaid invention to ASSIGNEE of the entire right, title and interest in and to the same, for the use of the ASSIGNEE, its successors and assigns.

THE UNDERSIGNED, hereby agrees that THE UNDERSIGNED, his/her executors and legal representatives will make, execute and deliver (without charge but at the expense of the ASSIGNEE) any and all other instruments in writing including any and all further application papers, affidavits, assignments and other documents, and will communicate to said ASSIGNEE, its successors and representatives all facts known to THE UNDERSIGNED relating to said invention and the history thereof and will testify in all legal proceedings and generally do all things which may be necessary or desirable to vest the ASSIGNEE, its successors or assigns the entire right, title and interest in and to the said invention, applications, Letters Patent, rights, titles and benefits, privileges and advantages hereby sold, assigned and conveyed, or intended so to be.

THE UNDERSIGNED represents and agrees with said Assignee its successors and assignees, that no assignment grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been or will be made to others by THE UNDERSIGNED, and that full right to convey the same as herein expressed is possessed by THE UNDERSIGNED.

IN TESTIMONY WHEREOF, THE UNDERSIGNED has hereunto set her hand on the date indicated below.


Jesse C. Darley

7/29/2010
Date

No Legalization Required