

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT4905555

SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	SECURITY INTEREST	
CONVEYING PARTY DATA		
Name		Execution Date
CARDIOFOCUS, INC.		04/04/2018
RECEIVING PARTY DATA		
Name:	GPB DEBT HOLDINGS II LLC	
Street Address:	535 WEST 24TH STREET	
Internal Address:	4TH FLOOR	
City:	NEW YORK	
State/Country:	NEW YORK	
Postal Code:	10011	
PROPERTY NUMBERS Total: 37		
Property Type	Number	
Patent Number:	6375654	
Patent Number:	6558375	
Patent Number:	8702688	
Patent Number:	8696653	
Patent Number:	6953457	
Patent Number:	6942657	
Patent Number:	7207984	
Patent Number:	6572609	
Patent Number:	6423055	
Patent Number:	6626900	
Patent Number:	7357796	
Patent Number:	6932809	
Patent Number:	6605055	
Patent Number:	8267932	
Patent Number:	8231613	
Patent Number:	7935108	
Patent Number:	8025661	
Patent Number:	8241272	
Patent Number:	9861437	

PATENT

Property Type	Number
Patent Number:	8540704
Patent Number:	8152795
Patent Number:	9033961
Patent Number:	9421066
Patent Number:	8900219
Patent Number:	8444639
Patent Number:	8366705
Application Number:	14697065
Application Number:	14956052
Application Number:	15399304
Application Number:	15863264
Application Number:	29600753
Application Number:	62485691
Application Number:	15863373
Application Number:	62485700
Application Number:	62617483
PCT Number:	US2017012325
PCT Number:	US2018012715

CORRESPONDENCE DATA

Fax Number:

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: 202-775-1216
Email: cmcwhinney@sandw.com
Correspondent Name: CHRISTOPHER T. MCWHINNEY
Address Line 1: 1666 K STREET NW #700
Address Line 4: WASHINGTON, D.C. 20006

ATTORNEY DOCKET NUMBER:	96108.0011
NAME OF SUBMITTER:	CHRISTOPHER MCWHINNEY
SIGNATURE:	/Christopher McWhinney/
DATE SIGNED:	04/09/2018

Total Attachments: 12

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INTELLECTUAL PROPERTY SECURITY AGREEMENT

This Intellectual Property Security Agreement (this “**Agreement**”) is entered into as of April 4, 2018, by and among **GPB DEBT HOLDINGS II, LLC**, a Delaware limited liability company, in its capacity as Collateral Agent and Purchaser (together with its successors and permitted assigns, “**GPB**”), and **CARDIOFOCUS, INC.**, a Delaware corporation (“**Grantor**”).

RECITALS

A. Grantor has agreed to issue, and GPB has agreed to purchase, certain senior secured convertible notes (the “**Notes**”) pursuant to the terms of a Securities Purchase Agreement dated as the date hereof by and between GPB and the Grantor, which Notes are secured by that certain Security Agreement, dated as of the date hereof, by and between GPB and Grantor (the “**Security Agreement**”).

B. Pursuant to the terms of the Security Agreement, Grantor has granted to GPB a security interest in all of Grantor’s right, title and interest, whether presently existing or hereafter acquired, in, to and under all of the Collateral, which includes the Intellectual Property Collateral set forth below.

NOW, THEREFORE, for good and valuable consideration, receipt of which is hereby acknowledged, and intending to be legally bound, as collateral security for the prompt and complete payment when due of Grantor’s Obligations to GPB, Grantor hereby represents, warrants, covenants and agrees as follows:

AGREEMENT

1. **Grant of Security Interest.** To secure Grantor's Obligations to GPB, Grantor grants and pledges to GPB a security interest in all of Grantor's right, title and interest in, to and under its intellectual property (all of which shall collectively be called the “**Intellectual Property Collateral**”), including, without limitation, the following:

(a) Any copyrights, rights and interests in copyrights, works protectable by copyrights, copyright registrations and copyright applications, including, without limitation, the copyright registrations and applications listed on **Exhibit A** attached hereto (if any), and all renewals of any of the foregoing, all income, royalties, damages and payments now and hereafter due and/or payable under or with respect to any of the foregoing, including, without limitation, damages and payments for past, present and future infringements of any of the foregoing and the right to sue for past, present and future infringements of any of the foregoing (collectively, the “**Copyrights**”);

(b) Any patents and patent applications, including, without limitation, the inventions and improvements described and claimed therein, all inventions subject to the patents and patent applications listed on **Exhibit B** attached hereto (if any), and the reissues, divisions, continuations, renewals, extensions and continuations-in-part of any of the foregoing, and all income, royalties, damages and payments now or hereafter due and/or payable under or with respect to any of the foregoing, including, without limitation, damages and payments for past,

present and future infringements of any of the foregoing and the right to sue for past, present and future infringements of any of the foregoing (collectively, the “**Patents**”);

(c) Any trademarks, trade names, corporate names, company names, business names, fictitious business names, trade styles, service marks, logos, other business identifiers, prints and labels on which any of the foregoing have appeared or appear, all registrations and recordings thereof, and all applications in connection therewith, including, without limitation, the trademarks and applications listed in **Exhibit C** attached hereto (if any) and renewals thereof, and all income, royalties, damages and payments now or hereafter due and/or payable under or with respect to any of the foregoing, including, without limitation, damages and payments for past, present and future infringements of any of the foregoing and the right to sue for past, present and future infringements of any of the foregoing (collectively, the “**Trademarks**”); and

(d) Any other Intellectual Property.

2. **Recordation.** Grantor authorizes the Commissioner for Patents, the Commissioner for Trademarks and the Register of Copyrights and any other government officials, whether in the U.S. or any other country, to record and register this Agreement upon request by GPB.
3. **Transaction Documents.** This Agreement has been entered into pursuant to and in conjunction with the Security Agreement, which is hereby incorporated by reference. The provisions of the Security Agreement shall supersede and control over any conflicting or inconsistent provision herein. The rights and remedies of GPB with respect to the Intellectual Property Collateral are as provided by the Security Agreement and related documents, and nothing in this Agreement shall be deemed to limit such rights and remedies.
4. **Further Assurances.** At any time and from time to time, upon the written request of GPB or its representative, and at the sole expense of the Grantor, subject to the rights of holders of Permitted Liens, the Grantor will promptly and duly execute and deliver any and all such further instruments, documents and agreements and take such further actions as GPB or its representative may reasonably require in order for GPB to obtain the full benefits of this Agreement and of the rights and powers herein granted in favor of GPB.
5. **Execution in Counterparts.** This Agreement may be executed in counterparts (and by different parties hereto in different counterparts), each of which shall constitute an original, but all of which when taken together shall constitute a single contract. Delivery of an executed counterpart of a signature page to this Agreement by facsimile or in electronic (i.e., “pdf” or “tif” format) shall be effective as delivery of a manually executed counterpart of this Agreement.
6. **Successors and Assigns.** This Agreement will be binding on and shall inure to the benefit of the parties hereto and their respective successors and permitted assigns.
7. **Governing Law.** This Agreement and any claim, controversy, dispute or cause of action (whether in contract or tort or otherwise) based upon, arising out of or relating to this Agreement and the transactions contemplated hereby and thereby shall be governed by,

and construed in accordance with, the laws of the United States and the State of New York, without giving effect to any choice or conflict of law provision or rule (whether of the State of New York or any other jurisdiction).

8. **Defined Terms.** Capitalized terms not otherwise defined herein shall have the meanings set forth in the Security Agreement.

[Signature page follows.]

IN WITNESS WHEREOF, the parties have caused this Intellectual Property Security Agreement to be duly executed by its officers thereunto duly authorized as of the first date written above.

CARDIOFOCUS, INC.

By 
Name: Warren Clark
Title: Chief Financial Officer

GPB DEBT HOLDINGS II, LLC

By _____
Name: David Gentile
Title: Manager

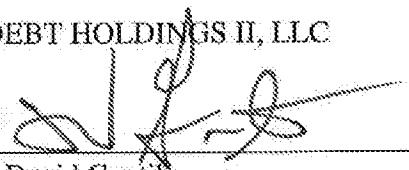
[Signature Page to Intellectual Property Security Agreement]

IN WITNESS WHEREOF, the parties have caused this Intellectual Property Security Agreement to be duly executed by its officers thereunto duly authorized as of the first date written above.

CARDIOFOCUS, INC.

By _____
Name: Warren Clark
Title: Chief Financial Officer

GPB DEBT HOLDINGS II, LLC

By  _____
Name: David Gentile
Title: Manager

[Signature Page to Intellectual Property Security Agreement]

EXHIBIT A

Copyrights

None.

EXHIBIT B

Patents

Country	Description	Registration/Applica tion Number	Grant/Registration/App lication Date
ED	Compliant Balloon	004396760-0001	12-Oct-17
US	Catheter system with working portion radially expandable upon rotation	6,375,654	23-Apr-02
US	CARDIAC ABLATION INSTRUMENT	6,558,375	6-May-03
US	CARDIAC ABLATION IMAGE ANALYSIS SYSTEM AND PROCESS	8,702,688	22-Apr-14
DE	DEFLECTABLE SHEATH CATHETERS	1866019	25-Oct-17
EP	DEFLECTABLE SHEATH CATHETERS	1866019	25-Oct-17
FR	DEFLECTABLE SHEATH CATHETERS	1866019	25-Oct-17
GB	DEFLECTABLE SHEATH CATHETERS	1866019	25-Oct-17
US	CARDIAC ABLATION SYSTEM WITH PULSED AIMING LIGHT	8,696,653	15-Apr-14
JP	PHOTOABLATION SYSTEM	4261101	20-Feb-09
JP	DEFLECTABLE SHEATH CATHETERS	5065052	17-Aug-12
JP	COAXIAL CATHETER INSTRUMENTS FOR ABLATION WITH RADIANT ENERGY	4732330	28-Apr-11
US	PHOTOTHERAPEUTIC WAVE GUIDE APPARATUS	6,953,457	11-Oct-05
US	INTRALUMENAL CONTACT SENSOR	6,942,657	13-Sep-05
US	METHOD FOR PROJECTION OF ENERGY	7,207,984	24-Apr-07
US	PHOTOTHERAPEUTIC WAVEGUIDE APPARATUS	6,572,609	3-Jun-03
US	PHOTOTHERAPEUTIC WAVE GUIDE APPARATUS	6,423,055	23-Jul-02

US	INTRALUMENAL CONTACT SENSOR	6,626,900	30-Sep-03
US	PHOTOTHERAPEUTIC WAVE GUIDE APPARATUS	7,357,796	15-Apr-08
US	SAFETY SHUT-OFF DEVICE FOR LASER SURGICAL INSTRUMENTS EMPLOYING BLACKBODY EMITTERS	6,932,809	23-Aug-05
US	BALLOON CATHETER WITH IRRIGATION SHEATH	6,605,055	12-Aug-03
ITe	PHOTOABLATION SYSTEM	1679045	27-Mar-13
GBe	PHOTOABLATION SYSTEM	1200002	12-Apr-06
GBe	PHOTOABLATION SYSTEM	1679045	27-Mar-13
FRc	PHOTOABLATION SYSTEM	1679045	27-Mar-13
ESe	PHOTOABLATION SYSTEM	1679045	27-Mar-13
EP	PHOTOABLATION SYSTEM	1679045	27-Mar-13
EP	PHOTOABLATION SYSTEM	1200002	12-Apr-06
DEc	PHOTOABLATION SYSTEM	60027300.8	12-Apr-06
DEc	PHOTOABLATION SYSTEM	600 47 922.6	27-Mar-13
US	DEFLECTABLE SHEATH CATHETERS FOR RADIO-FREQUENCY ABLATION	8,267,932	18-Sep-12
US	DEFLECTABLE SHEATH CATHETERS	8,231,613	31-Jul-12
US	DEFLECTABLE SHEATH CATHETERS	7,935,108	3-May-11
US	COAXIAL CATHETER INSTRUMENTS FOR ABLATION WITH RADIANT ENERGY	8,025,661	27-Sep-11
US	METHODS FOR ABLATION WITH RADIANT ENERGY	8,241,272	14-Aug-12
US	GUIDED CARDIAC ABLATION CATHETERS	9,861,437	9-Jan-18
US	GUIDED CARDIAC ABLATION CATHETERS (Appeal No.: 2010-008599)	8,540,704	24-Sep-13
US	METHOD AND DEVICE FOR CARDIAC TISSUE ABLATION	8,152,795	10-Apr-12
US	CARDIAC ABLATION CATHETERS FOR FORMING OVERLAPPING LESIONS	9,033,961	19-May-15

US	SYSTEM AND METHOD FOR VISUALIZING TISSUE DURING ABLATION PROCEDURES	9,421,066	23-Aug-16
US	SYSTEM AND METHOD FOR VISUALIZING TISSUE DURING ABLATION PROCEDURES	8,900,219	2-Dec-14
US	COAXIAL CATHETER INSTRUMENTS FOR ABLATION WITH RADIANT ENERGY	8,444,639	21-May-13
US	COAXIAL CATHETER INSTRUMENTS FOR ABLATION WITH RADIANT ENERGY	8,366,705	5-Feb-13

Patent Applications

Country	Description	Application Number	Application Date
EPw	CARDIAC ABLATION SYSTEM WITH IMAGE ANALYSIS TO OPTIMIZE ABLATION FORMATION	10822613.5	6-Oct-10
HK	CARDIAC ABLATION SYSTEM WITH IMAGE ANALYSIS TO OPTIMIZE ABLATION FORMATION	13101599.8	5-Feb-13
EP	SYSTEM AND METHOD FOR VISUALIZING TISSUE WITH AN ICG DYE COMPOSITION DURING ABLATION PROCEDURES	15785530.5	23-Apr-15
JP	SYSTEM AND METHOD FOR VISUALIZING TISSUE WITH AN ICG DYE COMPOSITION DURING ABLATION PROCEDURES	2016-564561	23-Apr-15
US	SYSTEM AND METHOD FOR VISUALIZING TISSUE WITH AN ICG DYE COMPOSITION DURING ABLATION PROCEDURES	14/697,065	27-Apr-15
US	SYSTEM AND METHOD FOR VISUAL CONFIRMATION OF PULMONARY VEIN ISOLATION DURING ABLATION PROCEDURES	14/956,052	1-Dec-15
EP	SYSTEM AND METHOD FOR VISUAL CONFIRMATION OF PULMONARY VEIN ISOLATION DURING ABLATION PROCEDURES	15865423.6	1-Dec-15

JP	SYSTEM AND METHOD FOR VISUAL CONFIRMATION OF PULMONARY VEIN ISOLATION DURING ABLATION PROCEDURES	2017-528804	1-Dec-15
US	ABLATION SYSTEM WITH AUTOMATED SWEEPING ABLATION ENERGY ELEMENT	15/399,304	5-Jan-17
WO	ABLATION SYSTEM WITH AUTOMATED SWEEPING ABLATION ENERGY ELEMENT	PCT/US17/12325	5-Jan-17
US	BALLOON CATHETER AND FLUID MANAGEMENT SYSTEM THEREOF	15/863,264	5-Jan-18
US	COMPLIANT BALLOON	29/600,753	14-Apr-17
US	COMPLIANT BALLOON	177521	6-Oct-17
JP	COMPLIANT BALLOON	2017-22263	6-Oct-17
US	BALLOON CATHETER AND FLUID MANAGEMENT SYSTEM THEREOF	62/485,691	14-Apr-17
US	BALLOON CATHETER AND FLUID MANAGEMENT SYSTEM THEREOF	15/863,373	5-Jan-18
WO	BALLOON CATHETER AND FLUID MANAGEMENT SYSTEM THEREOF	PCT/US18/12715	6-Jan-18
US	CATHETER BALLOON COOLING SYSTEM	62/485,700	14-Apr-17
US	ABLATION SYSTEM WITH AUTOMATED SWEEPING ABLATION ENERGY ELEMENT	62/617,483	15-Jan-18

EXHIBIT C

Trademarks

Title	Registration Number(s)	Registration/Application Date
CARDIOFOCUS (Community Mark)	001306455	January 2, 2003
CARDIOFOCUS	2,491,207	September 18, 2001
HEARTLIGHT (Community Mark)	10280824	September 21, 2011
HEARTLIGHT	4,195,520	August 21, 2012
CARDIOFOCUS (International trademark)	1259440	December 3, 2014
CARDIOFOCUS (Japan)	1259440	December 3, 2014
HEARTLIGHT (International trademark)	1245401	December 3, 2014
HEARTLIGHT (Japan)	1245401	December 3, 2014

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