PATENT ASSIGNMENT

Electronic Version v1.1
Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY AGREEMENT

CONVEYING PARTY DATA

Name	Execution Date
Avinger, Inc.	04/18/2013

RECEIVING PARTY DATA

Name:	PDL BioPharma, Inc.
Street Address:	932 Southwood Boulevard
Internal Address:	Attn: General Counsel
City:	Incline Village
State/Country:	NEVADA
Postal Code:	89451

PROPERTY NUMBERS Total: 29

Property Type	Number
Application Number:	12689748
Patent Number:	8062316
Patent Number:	8361097
Application Number:	13752325
Application Number:	12829277
Application Number:	12829267
Application Number:	12790703
Application Number:	12963536
Application Number:	13175232
Application Number:	13433049
PCT Number:	US2012030966
Application Number:	13654357
PCT Number:	US2012060672
Application Number:	13675867

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PCT Number:	US2012064848
Application Number:	61646783
PCT Number:	US2013031951
Application Number:	61646843
PCT Number:	US2013031901
PCT Number:	US2013032089
Application Number:	61697726
PCT Number:	US2013032196
PCT Number:	US2013032011
Application Number:	61697743
PCT Number:	US2013032494
Application Number:	61712149
Application Number:	61799505
PCT Number:	US2013031978
PCT Number:	US2013032679

CORRESPONDENCE DATA

Fax Number: 9494754754
Correspondence will be sent via US Mail when the fax attempt is unsuccessful.
Phone: 949-451-3800
Email: skann@gibsondunn.com
Correspondent Name: Stephanie S. Kann, Senior Paralegal
Address Line 1: 3161 Michelson Drive
Address Line 2: Gibson, Dunn & Crutcher LLP
Address Line 4: Irvine, CALIFORNIA 92612

ATTORNEY DOCKET NUMBER:	73748-00024
NAME OF SUBMITTER:	Stephanie S. Kann
Signature:	/stephanie s. kann/
Date:	04/18/2013

Total Attachments: 8
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PATENT SECURITY AGREEMENT

WHEREAS, Avinger, Inc., a Delaware corporation (herein referred to as "Grantor"), having an address at 400 Chesapeake Dr, Redwood City, CA, 94063, owns the letters patent and/or applications for letters patent of the United States of America more particularly described on Schedule 1-A annexed hereto as part hereof (the "Patents");

WHEREAS, the Grantor has entered into a Security Agreement, dated as of April 18, 2013 (said Security Agreement, as it may hereafter be amended or otherwise modified from time to time being the "Security Agreement", the terms defined therein and not otherwise defined herein being used herein as therein defined) in favor of the Agent, for itself and the Lender party to the Credit Agreement (in such capacity, the "Secured Party"); and

WHEREAS, pursuant to the Security Agreement, the Grantor has granted to Secured Party a security interest in all right, title and interest of Grantor in and to the Patents, together with all registrations and recordings thereof, including, without limitation, applications, registrations and recordings in the United States Patent and Trademark Office or in any similar office or agency of the United States, any State thereof or any other country or any political subdivision thereof, all whether now or hereafter owned or licensable by Grantor, and all reissues, divisions, continuations, continuations-in-part, term restorations or extensions thereof, all Patent licenses and all proceeds of all of the foregoing, including, without limitation, any claims by Grantor against third parties for infringement thereof for the full term of the Patents, to secure the prompt payment and performance of the Obligations.

NOW, THEREFORE, for good and valuable consideration, receipt of which is hereby acknowledged, the Grantor does hereby further confirm, and put on the public record, its grant to Secured Party of a security interest in and mortgage on the Collateral to secure the prompt payment and performance of the Obligations.

Section 1. Grant of Security Interest in Patents

Each Grantor hereby grants to the Agent a security interest and continuing lien on all of such Grantor's right, title and interest in, to and under the following, in each case whether owned or existing or hereafter acquired or arising and wherever located (collectively, the "Patent Collateral"): all United States and foreign patents and certificates of invention, or similar industrial property rights, including, but not limited to each patent referred to in Schedule 1-A hereto (as such schedule may be amended or supplemented from time to time), and with respect to any and all of the foregoing, (i) all applications therefor including the patent applications referred to in Schedule 1-A hereto (as such schedule may be amended or supplemented from time to time), (ii) all reissues, divisions, continuations, continuations-in-part, extensions, renewals, and reexaminations thereof, (iii) all rights corresponding thereto throughout the world, (iv) all inventions and improvements described therein, (v) all rights to sue for past, present and future infringements thereof, (vi) all licenses, claims, damages, and proceeds of suit arising therefrom, and (vii) all proceeds, payments and rights to payments arising out of the sale, lease, license, assignment, or other disposition thereof.

Section 2. Security Agreement

The security interests granted pursuant to this Patent Security Agreement are granted in conjunction with the security interests granted to the Agent pursuant to the Security Agreement

and each Grantor hereby acknowledges and affirms that the rights and remedies of the Agent with respect to the security interest in the Patent Collateral made and granted hereby are supplemental of, and more fully set forth in, the Security Agreement, the terms and provisions of which are incorporated by reference herein as if fully set forth herein. In the event of any irreconcilable conflict between the terms of this Patent Security Agreement and the terms of the Security Agreement, the terms of the Security Agreement shall control.

Section 3. Grantor Remains Liable. Each Grantor hereby agrees that, anything herein to the contrary notwithstanding, such Grantor shall assume responsibility for the prosecution, defense, enforcement or any other necessary or desirable actions in such Grantor's reasonable business judgment in connection with their Patents subject to a security interest hereunder.

Section 4. GOVERNING LAW

THIS PATENT SECURITY AGREEMENT SHALL BE GOVERNED BY THE LAWS OF THE STATE OF NEW YORK.

Section 5. Counterparts.

This Patent Security Agreement may be executed in counterparts, each of which shall constitute an original, but all of which when taken together shall constitute a single contract. This Patent Security Agreement shall become effective when the Agent has received counterparts bearing the signatures of all parties hereto. Delivery of a signature page of this Patent Security Agreement by telecopy or other electronic means shall be effective as delivery of a manually executed counterpart of such Patent Security Agreement.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, the undersigned Grantor has duly executed or caused this Patent Security Agreement to be duly executed as of the date first set forth above.

AVINGER, INC.

By:_____
Name: Matthew Ferguson
Title: Co-President and Chief Financial Officer

Schedule 1-A to the PATENT SECURITY AGREEMENT

Title	Date Filed or Granted	Serial No. or Patent No.
U.S. patent application titled: GUIDEWIRE POSITIONING CATHETER	1/19/2010	12/689,748
European patent application titled: GUIDEWIRE SUPPORT CATHETER	1/19/2010	10772404.9
Issued U.S. patent titled: CATHETER SYSTEM AND METHOD FOR BORING THROUGH BLOCKED VASCULAR PASSAGES	4/23/2008 11/22/2011	12/108,433 8,062,316
Issued U.S. patent titled: CATHETER SYSTEM AND METHOD FOR BORING THROUGH BLOCKED VASCULAR PASSAGES	10/19/2011 1/29/2013	13/277,167 8,361,097
U.S. patent application titled: CATHETER SYSTEM AND METHOD FOR BORING THROUGH BLOCKED VASCULAR PASSAGES	1/28/2013	13/752,325
Australian patent application titled: CATHETER SYSTEM AND METHOD FOR BORING THROUGH BLOCKED VASCULAR PASSAGES	4/23/2009	2009240503
Canadian patent application titled: CATHETER SYSTEM AND METHOD FOR BORING THROUGH BLOCKED VASCULAR PASSAGES	4/23/2009	2,722,401
Chinese patent application titled: CATHETER SYSTEM AND METHOD FOR BORING THROUGH BLOCKED VASCULAR PASSAGES	4/23/2009	200980114243.5
European patent application titled: CATHETER SYSTEM AND METHOD FOR BORING THROUGH BLOCKED VASCULAR PASSAGES	4/23/2009	09735792.5
Indian patent application titled: CATHETER SYSTEM AND METHOD FOR BORING THROUGH BLOCKED VASCULAR PASSAGES	4/23/2009	7271/DELNP/2010
Japanese patent application titled: CATHETER SYSTEM AND METHOD FOR BORING THROUGH BLOCKED VASCULAR PASSAGES	4/23/2009	2011-506458

Title	Date Filed or Granted	Serial No. or Patent No.
U.S. patent application titled: ATHERECTOMY CATHETER WITH LATERALLY-DISPLACEABLE TIP	7/1/2010	12/829,277
European patent application titled: ATHERECTOMY CATHETER WITH LATERALLY-DISPLACEABLE TIP	7/1/2010	10794772.3
U.S. patent application titled: CATHETER- BASED OFF-AXIS OPTICAL COHERENCE TOMOGRAPHY IMAGING SYSTEM	7/1/2010	12/829,267
Canadian patent application titled: CATHETER-BASED OFF-AXIS OPTICAL COHERENCE TOMOGRAPHY IMAGING SYSTEM	7/1/2010	2,767,017
Chinese patent application titled: CATHETER-BASED OFF-AXIS OPTICAL COHERENCE TOMOGRAPHY IMAGING SYSTEM	7/1/2010	201080036357.5
European patent application titled: CATHETER-BASED OFF-AXIS OPTICAL COHERENCE TOMOGRAPHY IMAGING SYSTEM	7/1/2010	10794778.0
Indian patent application titled: CATHETER-BASED OFF-AXIS OPTICAL COHERENCE TOMOGRAPHY IMAGING SYSTEM	7/1/2010	10171/DELNP/2011
Japanese patent application titled: CATHETER-BASED OFF-AXIS OPTICAL COHERENCE TOMOGRAPHY IMAGING SYSTEM	7/1/2010	2012-518611
U.S. patent application titled: OPTICAL COHERENCE TOMOGRAPHY FOR BIOLOGICAL IMAGING	5/28/2010	12/790,703
AU patent application titled: OPTICAL COHERENCE TOMOGRAPHY FOR BIOLOGICAL IMAGING	5/28/2010	2010253912
Canadian patent application titled: OPTICAL COHERENCE TOMOGRAPHY FOR BIOLOGICAL IMAGING	5/28/2010	2,763,324
Chinese patent application titled: OPTICAL COHERENCE TOMOGRAPHY FOR BIOLOGICAL IMAGING	5/28/2010	201080031128.4

Title	Date Filed or Granted	Serial No. or Patent No.
European patent application titled: OPTICAL COHERENCE TOMOGRAPHY FOR BIOLOGICAL IMAGING	5/28/2010	10781351.1
Indian patent application titled: OPTICAL COHERENCE TOMOGRAPHY FOR BIOLOGICAL IMAGING	5/28/2010	9365/DELNP/2011
Japanese patent application titled: OPTICAL COHERENCE TOMOGRAPHY FOR BIOLOGICAL IMAGING	5/28/2010	2012-513338
U.S. patent application titled: DEVICES AND METHODS FOR PREDICTING AND PREVENTING RESTENOSIS	12/8/2010	12/963,536
European patent application titled: DEVICES AND METHODS FOR PREDICTING AND PREVENTING RESTENOSIS	12/8/2010	10836649.3
U.S. patent application titled: ATHERECTOMY CATHETERS WITH LONGITUDINALLY DISPLACEABLE DRIVE SHAFTS	7/1/2011	13/175,232
Canadian patent application titled: ATHERECTOMY CATHETERS WITH LONGITUDINALLY DISPLACEABLE DRIVE SHAFTS	7/1/2011	2,803,992
European patent application titled: ATHERECTOMY CATHETERS WITH LONGITUDINALLY DISPLACEABLE DRIVE SHAFTS	7/1/2011	11801479.4
Japanese patent application titled: ATHERECTOMY CATHETERS WITH LONGITUDINALLY DISPLACEABLE DRIVE SHAFTS	7/1/2011	
U.S. patent application titled: OCCLUSION-CROSSING DEVICES, IMAGING, AND ATHERECTOMY DEVICES	3/28/2012	13/433,049
Patent Cooperation Treaty (PCT) patent application titled: OCCLUSION-CROSSING DEVICES, IMAGING, AND ATHERECTOMY DEVICES	3/28/2012	PCT/US2012/030966

Title	Date Filed or Granted	Serial No. or Patent No.
U.S. patent application titled: ATHERECTOMY CATHETERS AND NON-CONTACT ACTUATION MECHANISM FOR CATHETERS	10/17/2012	13/654,357
Patent Cooperation Treaty (PCT) patent application titled: ATHERECTOMY CATHETERS AND NON-CONTACT ACTUATION MECHANISM FOR CATHETERS	10/17/2012	PCT/US2012/060672
U.S. patent application titled: OCCLUSION-CROSSING DEVICES, ATHERECTOMY DEVICES, AND IMAGING	11/13/2012	13/675,867
Patent Cooperation Treaty (PCT) patent application titled: OCCLUSION-CROSSING DEVICES, ATHERECTOMY DEVICES, AND IMAGING	11/13/2012	PCT/US2012/064848
U.S. provisional patent application titled: OPTICAL COHERENCE TOMOGRAPHY WITH GRADED INDEX FIBER FOR BIOLOGICAL IMAGING	5/14/2012	61/646,783
Patent Cooperation Treaty (PCT) patent application titled: OPTICAL COHERENCE TOMOGRAPHY WITH GRADED INDEX FIBER FOR BIOLOGICAL IMAGING	3/15/2013	PCT/US2013/031951
U.S. provisional patent application titled: ATHERECTOMY CATHETERS WITH IMAGING	5/14/2012	61/646,843
Patent Cooperation Treaty (PCT) patent application titled: ATHERECTOMY CATHETERS WITH IMAGING	3/15/2013	PCT/US2013/031901
Patent Cooperation Treaty (PCT) patent application titled: ATHERECTOMY CATHETER DRIVE ASSEMBLIES	3/15/2013	PCT/US2013/032089
U.S. provisional patent application titled: RE-ENTRY STYLET FOR CATHETER	9/6/2012	61/697,726
Patent Cooperation Treaty (PCT) patent application titled: RE-ENTRY STYLET FOR CATHETER	3/15/2013	PCT/US2013/032196
Patent Cooperation Treaty (PCT) patent application titled: OPTICAL PRESSURE SENSOR ASSEMBLY	3/15/2013	PCT/US2013/032011

Title	Date Filed or Granted	Serial No. or Patent No.
U.S. provisional patent application titled: BALLOON ATHERECTOMY CATHETERS WITH IMAGING	9/6/2012	61/697,743
Patent Cooperation Treaty (PCT) patent application titled: BALLOON ATHERECTOMY CATHETERS WITH IMAGING	3/15/2013	PCT/US2013/032494
U.S. provisional patent application titled: OCCLUSION-CROSSING DEVICES	10/10/2012	61/712,149
U.S. provisional patent application titled: OCCLUSION-CROSSING DEVICES	3/15/2013	61/799,505
Patent Cooperation Treaty (PCT) patent application titled: TISSUE COLLECTION DEVICE FOR CATHETER	3/15/2013	PCT/US2013/031978
Patent Cooperation Treaty (PCT) patent application titled: CHRONIC TOTAL OCCLUSION CROSSING DEVICES WITH IMAGING	3/15/2013	PCT/US2013/032679