

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT5853400

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
BRIAN Y. TACHIBANA	09/23/2015
CHARLES W. MCNALL	08/31/2015
MICHAEL ZUNG	10/07/2015
PETER HOWARD SMITH	03/17/2016
BRIAN CHIU	10/07/2015
DOUGLAS JOSEPH SCOTT BOURNE	10/07/2015
PRIYANSHU GUPTA	08/25/2015
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	AVINGER, INC.
<b>Street Address:</b>	400 CHESAPEAKE DRIVE
<b>City:</b>	REDWOOD CITY
<b>State/Country:</b>	CALIFORNIA
<b>Postal Code:</b>	94063
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	16372112
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(650)212-7562
<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>	6502121700
<b>Email:</b>	info@shayglenn.com, jnguyen-perez@shayglenn.com
<b>Correspondent Name:</b>	SHAY GLENN LLP
<b>Address Line 1:</b>	2755 CAMPUS DRIVE, SUITE 210
<b>Address Line 4:</b>	SAN MATEO, CALIFORNIA 94403
<b>ATTORNEY DOCKET NUMBER:</b>	11041-717.302
<b>NAME OF SUBMITTER:</b>	KATHLEEN KELLEHER
<b>SIGNATURE:</b>	/Kathleen Kelleher, Reg. No. 62,230/
<b>DATE SIGNED:</b>	12/05/2019

**Total Attachments: 8**

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RECORDATION FORM COVER SHEET  
PATENTS ONLY

PATENT AND TRADEMARK OFFICE

TO THE HONORABLE DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE. PLEASE RECORD THE ATTACHED ORIGINAL DOCUMENTS OR COPY THEREOF.

1. Name of conveying party(ies):

- (1) **Brian Y. TACHIBANA**  
 (2) **Charles W. MCNALL**  
 (3) **Michael ZUNG**  
 (4) **Peter Howard SMITH**  
 (5) **Brian CHIU**  
 (6) **Douglas Joseph Scott BOURNE**  
 (7) **Priyanshu GUPTA**

Additional name(s) of conveying party(ies) attached?

☐ Yes ☒ No

2. Name and address of receiving party(ies):

Name: **AVINGER, INC.**

**400 Chesapeake Drive**  
**Redwood City, CA 94063**

3. Nature of Conveyance:

- ☒ Assignment ☐ Merger  
☐ Security Agreement ☐ Change of Name  
☐ Other

**EXECUTION DATE(S): (1) 09/23/2015 (2) 08/31/2015**  
**(3) 10/07/2015 (4) 03/17/2016 (5) 10/07/2015**  
**(6) 10/07/2015 (7) 08/25/2015**

Name and address of receiving party(ies):

Name:

Street Address:

City: State: Zip:

Country:

Additional name(s) &amp; address(es) attached?

☐ Yes ☒ No

4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is:

A. Patent Application No.(s) – **16/372,112**

Title: **ATHERECTOMY CATHETER DRIVE**  
**ASSEMBLIES**

B. Patent No.(s)

Additional numbers attached? ☐ Yes ☒ No

5. Name and address of party to whom correspondence concerning document should be mailed:

**Kathleen Kelleher**  
**Shay Glenn LLP**  
**2755 Campus Drive, Suite 210**  
**San Mateo, CA 94403**

6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 1.21(h)(1)): \$0.00



None required. Please charge fees to **Deposit Account**  
**No. 50-4050.**

DO NOT USE THIS SPACE

8. Statement and signature.

*To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.*

**Kathleen Kelleher, Reg. No. 62,230****/Kathleen Kelleher/**

December 5, 2019

Name of Person Signing

Signature

Date

Total number of pages including cover sheet, attachments, and documents: **8****PATENT****REEL: 051196 FRAME: 0493**

**ASSIGNMENT OF PATENT APPLICATION****SG Docket No.: 11041-717.US1**

This Assignment of Patent Application is between:

**Brian Y. TACHIBANA** of Oakland, CA;  
**Charles W. MCNALL** of Cottonwood Heights, UT;  
**Michael ZUNG** of San Carlos, CA;  
**Peter Howard SMITH** of Pacifica, CA;  
**Brian CHIU** of San Francisco, CA;  
**Douglas Joseph Scott BOURNE** of Campbell, CA; and  
**Priyanshu GUPTA** of Palo Alto, CA

(hereinafter referred to as "Inventor") and

**AVINGER, INC.**, a corporation of the State of Delaware, having a place of business at 400 Chesapeake Drive, Redwood City, CA 94063 (hereinafter referred to as "Assignee").

WHEREAS Inventor has invented certain new and useful improvements in:

**"ATHERECTOMY CATHETER DRIVE ASSEMBLIES"**

for which an application for a United States Patent was filed on **November 10, 2014** and assigned Application No. **14/400,151** and is a 371 of PCT/US2013/032089 filed **March 15, 2013**.

WHEREAS, Assignee is desirous of acquiring the entire right, title and interest of each inventor in and to said application and the invention disclosed therein, and in and to all embodiments of the invention, heretofore conceived, made or discovered by said Inventor (all collectively hereinafter termed "said invention"), and in and to any and all patents, inventor's certificates and other forms of protection (hereinafter termed "patents") thereon granted in the United States and foreign countries.

NOW, THEREFORE, in consideration of good and valuable consideration acknowledged by said Inventor to have been received in full from said Assignee:

1. Said Inventor does hereby sell, assign, transfer and convey unto said Assignee the entire right, title and interest (a) in and to said application and said invention; (b) in and to all rights to apply for foreign patents on said invention pursuant to the International Convention for the Protection of Industrial Property or otherwise; (c) in and to any and all applications filed and any and all patents granted on said invention in the United States or any foreign country, including each and every application filed and each and every patent granted on any application which is a divisional, substitution, continuation, or continuation-in-part of any of said applications; and (d) in and to each and every reissue or extensions of any of said patents.

2. Said Inventor hereby covenants and agrees to cooperate with said Assignee to enable said Assignee to enjoy to the fullest extent the right, title and interest herein conveyed in the United States and foreign countries. Such cooperation by said Inventor shall include prompt production of pertinent facts and documents, giving of testimony, execution of petitions, oaths, specifications, declarations or other papers, and other assistance all to the extent deemed necessary or desirable by said Assignee (a)

**ASSIGNMENT OF PATENT APPLICATION**

**SG Docket No.: 11041-717.US1**

for perfecting in said Assignee the right, title and interest herein conveyed; (b) for prosecuting any of the said applications; (c) for filing and prosecuting substitute, divisional, continuing or additional applications covering said invention; (d) for filing and prosecuting applications for reissuance of any said patents; (e) for interference or other priority proceedings involving said invention; and (f) for legal proceedings involving said invention and any applications therefor and any patents granted thereon, including without limitation reissues and reexaminations, opposition proceedings, cancellation proceedings, priority contest, public use proceedings, infringement actions and court actions; provided, however, that the expense incurred by said Inventor in providing such cooperation shall be paid for by said Assignee.

3. The terms and covenants of this assignment shall inure to the benefit of said Assignee, its successors, assigns and other legal representatives, and shall be binding upon said Inventor, his heirs, legal representatives and assigns.

4. Said Inventor hereby warrants and represents that he has not entered and will not enter into any assignment, contract, or understanding in conflict herewith.

IN WITNESS WHEREOF, said Inventor has executed and delivered this instrument to said Assignee:

9/23/2015  
Date

Brian Y. Tachibana  
Brian Y. TACHIBANA

\_\_\_\_\_  
Date

\_\_\_\_\_  
Charles W. MCNALL

\_\_\_\_\_  
Date

\_\_\_\_\_  
Michael ZUNG

\_\_\_\_\_  
Date

\_\_\_\_\_  
Peter Howard SMITH

\_\_\_\_\_  
Date

\_\_\_\_\_  
Brian CHIU

\_\_\_\_\_  
Date

\_\_\_\_\_  
Douglas Joseph Scott BOURNE

**ASSIGNMENT OF PATENT APPLICATION****SG Docket No.: 11041-717.US1**

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IN WITNESS WHEREOF, said Inventor has executed and delivered this instrument to said Assignee:

\_\_\_\_\_  
Date\_\_\_\_\_  
**Brian Y. TACHIBANA**2015-08-31  
Date  
\_\_\_\_\_  
**Charles W. MCNALL**\_\_\_\_\_  
Date\_\_\_\_\_  
**Michael ZUNG**\_\_\_\_\_  
Date\_\_\_\_\_  
**Peter Howard SMITH**\_\_\_\_\_  
Date\_\_\_\_\_  
**Brian CHIU**\_\_\_\_\_  
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\_\_\_\_\_  
Date\_\_\_\_\_  
**Brian Y. TACHIBANA**\_\_\_\_\_  
Date\_\_\_\_\_  
**Charles W. MCNALL**\_\_\_\_\_  
Date**7 OCT 2015**\_\_\_\_\_  
**Michael ZUNG**\_\_\_\_\_  
Date\_\_\_\_\_  
**Peter Howard SMITH**\_\_\_\_\_  
Date**7 OCT 2015**\_\_\_\_\_  
**Brian CHIU**\_\_\_\_\_  
Date\_\_\_\_\_  
**Douglas Joseph Scott BOURNE**

**ASSIGNMENT OF PATENT APPLICATION****SG Docket No.: 11041-717.US1**

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**Peter Howard SMITH**\_\_\_\_\_  
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**Brian CHIU**\_\_\_\_\_  
Date\_\_\_\_\_  
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Date\_\_\_\_\_  
**Michael ZUNG**\_\_\_\_\_  
Date\_\_\_\_\_  
**Peter Howard SMITH**\_\_\_\_\_  
Date\_\_\_\_\_  
**Brian CHIU**\_\_\_\_\_  
Date

07 OCT 15

\_\_\_\_\_  
**Douglas Joseph Scott BOURNE**

ASSIGNMENT OF PATENT APPLICATION

SG Docket No.: 11041-717.US1

25 August 2015  
Date

Priyanshu Gupta  
Priyanshu GUPTA