PATENT ASSIGNMENT COVER SHEET

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| SUBMISSION TYPE: | NEW ASSIGNMENT |
|-----------------------|----------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT |

CONVEYING PARTY DATA

| Name | Execution Date |
|---------------|----------------|
| BRIAN NINNI | 10/19/2017 |
| NOBUHIKO HATA | 10/27/2017 |
| KEMAL TUNCALI | 06/15/2018 |

RECEIVING PARTY DATA

| Name: | THE BRIGHAM AND WOMEN'S HOSPITAL INC. |
|-----------------|---------------------------------------|
| Street Address: | 75 FRANCIS STREET |
| City: | BOSTON |
| State/Country: | MASSACHUSETTS |
| Postal Code: | 02115 |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 15787536 |

CORRESPONDENCE DATA

Fax Number: (949)932-3560

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.

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Email: ipdocketing@cusa.canon.com

Correspondent Name: CANON U.S.A. INC. INTELLECTUAL PROPERTY

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Address Line 4: IRVINE, CALIFORNIA 92618-3731

| ATTORNEY DOCKET NUMBER: | 2611-21013-NON-PROV | |
|-------------------------|---------------------|--|
| NAME OF SUBMITTER: | JOSEPH VEHIGE | |
| SIGNATURE: | /Joseph Vehige/ | |
| DATE SIGNED: | 07/11/2018 | |

Total Attachments: 3

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PATENT REEL: 046324 FRAME: 0889

504999564

ASSIGNMENT

FOR VALUE RECEIVED, I

Brian Ninni, residing at Somerville, MA

hereby sell, assign, transfer, and convey unto

The Brigham and Women's Hospital Inc., a corporation of Massachusetts having a place of business at 75 Francis Street, Boston, MA 02115

(hereinafter called the "Assignee"), any right, title, and interest that I have in and to the inventions that are described in an application for a United States patent (the "Application") that is entitled

PLACEMENT MANIPULATOR AND ATTACHMENT FOR POSITIONING A PUNCTURE INSTRUMENT by Yasumichi Arimitsu, Kosuke Fujimoto, Brian Ninni, Nobuhiko Hata, Kemal Tuncali; Attorney Docket No.: 2611-21013

and that is filed concurrently herewith or was filed on October 18, 2017 and appointed Serial No. 15/787536, and was filed on October 18, 2017 as PCT International Appl. Serial No. PCT/US17/57238, and which claim priority to U.S. Provisional Application Serial No. 62/410123 which was filed on October 19, 2016 and in and to the Application, and all divisionals, renewals, continuations, and continuations-in-part thereof, and all patents of the United States that may be granted thereon, and all reissues and extensions thereof, and all applications for patent, all patents, whether national patents or supranational patents, and all other grants of protection of proprietary rights including, but not limited to, inventor's certificate, utility model, utility certificate, patent of importation, registration of patent, industrial design registration that may be filed, and all rights of priority in any such country or countries and that may be granted, upon the inventions in any countries or regions foreign to the United States, and all relissues, renewals, divisionals, and extensions thereof; and I hereby authorize and request the Commissioner for Patents and Trademarks of the United States, and all officials of countries or regions foreign to the United States having authority to do so, to issue all such patents or other grants of protection upon the inventions to the Assignee or to such nominees as the Assignee may designate.

AND I hereby sell, assign, transfer, and convey unto the Assignee any right, title, and interest that I have to the right to claim priority to the Application, and accordingly I authorize and empower the Assignee or its nominees to invoke and claim the right of priority without further written or oral authorization from me.

AND I hereby consent that a copy of this assignment will be deemed a full and formal equivalent of any assignment, consent to file, or like document that may be required in any country or region for any purpose, including without limitation as proof of the right of the Assignee or its nominees to claim the right of priority.

AND I hereby covenant that I have the full right to convey the entire right, title, and interest herein assigned and that I have not executed and will not execute any agreement in conflict herewith.

AND I hereby covenant and agree that I will communicate to the Assignee or its nominees all facts known to me that are relevant to the inventions, and testify in all legal proceedings, sign all lawful papers, execute all divisionals, continuations, and reissue applications, make all rightful oaths and declarations, and in general perform all lawful acts necessary or proper to aid the Assignee or its nominees in obtaining, maintaining, and enforcing all patents or other grants of protection upon the inventions in any and all countries and regions.

AND I hereby covenant and agree that, if any court or competent authority finds that any provision of this agreement, or part of any provision, is invalid, illegal, or unenforceable, that provision or part of a provision will, to the extent required, be deemed to be deleted, and the validity and enforceability of the other provisions of this agreement will not be affected.

AND I hereby authorize the attorneys of record for the Application or the attorneys' representative to fill in the application number and filing date in the spaces provided above.

NO LEGALIZATION REQUIRED. THIS DOCUMENT MAY BE NOTARIZED IF DESIRED FOR FURTHER PROOF OF EXECUTION

PATENT REEL: 046324 FRAME: 0890

ASSIGNMENT

FOR VALUE RECEIVED, I

Nobuhiko Hata, residing at Newton, MA

hereby sell, assign, transfer, and convey unto

The Brigham and Women's Hospital Inc., a corporation of Massachusetts having a place of business at 75 Francis Street, Boston, MA 02115

(hereinafter called the "Assignee"), any right, title, and interest that I have in and to the inventions that are described in an application for a United States patent (the "Application") that is entitled

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AND I hereby covenant and agree that I will communicate to the Assignee or its nominees all facts known to me that are relevant to the inventions, and testify in all legal proceedings, sign all lawful papers, execute all divisionals, continuations, and reissue applications, make all rightful oaths and declarations, and in general perform all lawful acts necessary or proper to aid the Assignee or its nominees in obtaining, maintaining, and enforcing all patents or other grants of protection upon the inventions in any and all countries and regions.

AND I hereby covenant and agree that, if any court or competent authority finds that any provision of this agreement, or part of any provision, is invalid, illegal, or unenforceable, that provision or part of a provision will, to the extent required, be deemed to be deleted, and the validity and enforceability of the other provisions of this agreement will not be affected.

AND I hereby authorize the attorneys of record for the Application or the attorneys' representative to fill in the application number and filing date in the spaces provided above.

| Nobuhiko Hata | Witness |
|--------------------------------|---|
| 10/27/17 | |
| Date | Date |
| NO LEGALIZATION REQUIRED. THIS | DOCUMENT MAY BE NOTARIZED IF DESIRED FOR FURTHER PROOF OF |

EXECUTION

ASSIGNMENT

FOR VALUE RECEIVED, I

Kemal Tuncali, residing at Newton, MA

hereby sell, assign, transfer, and convey unto

The Brigham and Women's Hospital Inc., a corporation of Massachusetts having a place of business at 75 Francis Street, Boston, MA 02115

(hereinafter called the "Assignee"), any right, title, and interest that I have in and to the inventions that are described in an application for a United States patent (the "Application") that is entitled

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AND I hereby authorize the attorneys of record for the Application or the attorneys' representative to fill in the application number and filing date in the spaces provided above.

Kemal Tuncali

6-15.18

Witness: Alisa Greer

Date NO LEGALIZATION REQUIRED. THIS DOCUMENT MAY BE NOTARIZED IF DESIRED FOR FURTHER PROOF OF EXECUTION

Page 1 of 1

RECORDED: 07/11/2018