

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT3611147

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
INFRAREDX, INC.	10/21/2015

RECEIVING PARTY DATA

Name:	NIPRO CORPORATION
Street Address:	3-3-13, TOYOSAKI, KITAKU
City:	OSAKA
State/Country:	JAPAN
Postal Code:	531-0072

PROPERTY NUMBERS Total: 37

Property Type	Number
Patent Number:	7486985
Patent Number:	7689268
Patent Number:	7376456
Patent Number:	8060187
Patent Number:	7450241
Patent Number:	7679754
Patent Number:	7929145
Patent Number:	8035819
Patent Number:	7426410
Patent Number:	7996069
Patent Number:	8386023
Patent Number:	7672713
Patent Number:	8280495
Patent Number:	6654630
Patent Number:	7873406
Patent Number:	6873868
Patent Number:	7742805
Patent Number:	6706004
Patent Number:	6701181
Patent Number:	6615062

PATENT

Property Type	Number
Patent Number:	6949072
Patent Number:	6904199
Patent Number:	7616321
Patent Number:	6895137
Patent Number:	7292715
Patent Number:	7310357
Patent Number:	7313432
Application Number:	13967905
Patent Number:	8052605
Application Number:	12062188
Patent Number:	7535935
Patent Number:	6980573
Patent Number:	7132645
Patent Number:	7539530
Patent Number:	8000774
Patent Number:	8958867
Application Number:	14621963

CORRESPONDENCE DATA

Fax Number: (858)509-3691

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.

Email: lspirra@SHEPPARDMULLIN.COM

Correspondent Name: SHEPPARD, MULLIN, RICHTER & HAMPTON LLP

Address Line 1: 12275 EL CAMINO REAL, SUITE 200

Address Line 4: SAN DIEGO, CALIFORNIA 92130

ATTORNEY DOCKET NUMBER:	45BL-211924
NAME OF SUBMITTER:	LINDA M. SPIRRA
SIGNATURE:	/Linda M. Spirra/
DATE SIGNED:	11/11/2015

Total Attachments: 10

source=Infraredx to Nipro - Patent Assignment#page1.tif
source=Infraredx to Nipro - Patent Assignment#page2.tif
source=Infraredx to Nipro - Patent Assignment#page3.tif
source=Infraredx to Nipro - Patent Assignment#page4.tif
source=Infraredx to Nipro - Patent Assignment#page5.tif
source=Infraredx to Nipro - Patent Assignment#page6.tif
source=Infraredx to Nipro - Patent Assignment#page7.tif
source=Infraredx to Nipro - Patent Assignment#page8.tif
source=Infraredx to Nipro - Patent Assignment#page9.tif
source=Infraredx to Nipro - Patent Assignment#page10.tif

EXHIBIT A

PATENT ASSIGNMENT AGREEMENT

This PATENT ASSIGNMENT AGREEMENT, dated as of October 27, 2015 (this "Assignment"), is entered into by and between INFRAREDx, INC., a Delaware corporation with principal offices at 34 Third Avenue, Burlington, MA 01803, U.S.A. ("Assignor"), and NIPRO CORPORATION, a Japan corporation with principal offices at 3-3-13, Toyosaki, Kitaku, Osaka 531-0072 ("Assignee").

RECITALS

WHEREAS, Assignor and Assignee are parties to that certain INTELLECTUAL PROPERTY TRANSFER AGREEMENT, dated as of September 3, 2015 (the "Intellectual Property Transfer Agreement"), concerning the sale and purchase of certain assets, including the Assigned Patents (as defined below);

WHEREAS, pursuant to the Intellectual Property Transfer Agreement, Assignor has agreed to sell, assign, transfer, convey and deliver to Assignee, and Assignee has agreed to purchase, acquire and accept from Assignor, all of Assignor's right, title and interest in and to the Assigned Patents; and

WHEREAS, pursuant to the Intellectual Property Transfer Agreement, Assignor has agreed to execute documents, including this Assignment, for recordation by Assignee with the United States Patent and Trademark Office ("USPTO").

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Assignor and Assignee agree as follows:

AGREEMENT

1. Assignment. Subject to the terms and conditions of the Intellectual Property Transfer Agreement, Assignor hereby irrevocably and unconditionally assigns, transfers and conveys to Assignee all of Assignor's right, title and interest in and to the patents and patent applications set forth on Exhibit A, and in and to any and all divisions, continuations, continuations-in-part, reissues, reexaminations and extensions of said patents and patent applications (the "Assigned Patents").
2. Recordation. Assignor hereby authorizes the Commissioner for Patents in the USPTO to record and register this Assignment upon request by Assignee.
3. Intellectual Property Transfer Agreement. Nothing herein shall be deemed to supersede or otherwise modify the provisions of the Intellectual Property Transfer Agreement. In the event of any conflict between the provisions of this Assignment and the Intellectual Property Transfer Agreement, the provisions of the Intellectual Property Transfer Agreement shall govern with respect to such conflict.

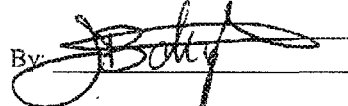
4. Rights of Third Parties. Nothing expressed or implied in this Assignment is intended or shall be construed to confer upon or give any person, other than the parties hereto and their permitted successors and assigns, any legal or equitable right, benefits or remedy of any nature whatsoever under or by reason of this Assignment.
5. Governing Law. This Assignment shall be solely and exclusively governed by and construed under the laws of the State of New York (without regard to the conflict of law principles thereof).
6. Counterparts. This Assignment may be executed in two (2) or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Any facsimile or electronic copies hereof or signature hereon shall, for all purposes, be deemed originals.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

IN WITNESS WHEREOF, this Assignment has been duly executed and delivered by each party as of the date first above written.

ASSIGNOR

INFRAREDX, INC.

By: 

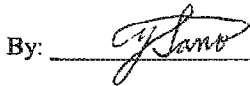
Name: Jason Bottiglieri

Title: President & CEO

Date: October 21, 2015

ASSIGNEE

NIPRO CORPORATION

By: 

Name: Yoshihiko Sano

Title: President and Representative Director

Date: October 29, 2015

[Signature Page to Assignment of Patents]

EXHIBIT A

Assigned Patents

Title	Application No.	Filing Date	Patent No./Publ. No.	Country
NEAR-INFRARED SPECTROSCOPIC ANALYSIS OF BLOOD VESSEL WALLS	10/212,845	08-05-2002	7,486,985	USA
NEAR-INFRARED SPECTROSCOPIC ANALYSIS OF BLOOD VESSEL WALLS	03767194	08-05-2003	1551299	Europe
NEAR-INFRARED SPECTROSCOPIC ANALYSIS OF BLOOD VESSEL WALLS	2004-526442	08-05-2003	46-02765	Japan
SPECTROSCOPIC UNWANTED SIGNAL FILTERS FOR DISCRIMINATION OF VULNERABLE PLAQUE AND METHOD THEREFOR	10/426,750	04-30-2003	7,689,268	USA
NEAR-INFRARED SPECTROSCOPIC ANALYSIS OF BLOOD VESSEL WALLS	10/635,330	08-05-2003	7,376,456	USA
NEAR-INFRARED SPECTROSCOPIC ANALYSIS OF BLOOD VESSEL WALLS	12/123,890	05-20-2008	8,060,187	USA

Title	Application No.	Filing Date	Patent No./Publ. No.	Country
DETECTING VULNERABLE PLAQUE	11/241,726	09-30-2005	7,450,241	USA
DETECTING VULNERABLE PLAQUE	06816136	09-29-2006	1928307	Europe
ARTERIAL PROBE FOR OCT	12/247,565	10-08-2008	7,679,754	USA
TIP FOR DUAL FIBER CATHETER	03716312	03-05-2003	1601288	Europe
ARTERIAL PROBE FOR OCT	12/725,091	03-16-2010	7,929,145	USA
ARTERIAL PROBE FOR OCT	12/938,020	11-02-2010	8,035,819	USA
SPECTROSCOPY OF DEEPLY-SCATTERED LIGHT	10/456,979	06-06-2003	7,426,410	USA
SPECTROSCOPY OF DEEPLY-SCATTERED LIGHT	2006-514993	05-27-2004	50-64796	Japan
SPECTROSCOPY OF DEEPLY-SCATTERED LIGHT	04753574	05-27-2004	1636627	Europe
SPECTROSCOPY OF DEEPLY-SCATTERED LIGHT	12/210,669	09-15-2008	7,996,069	USA

Title	Application No.	Filing Date	Patent No./Publ. No.	Country
CATHETER PROBE ARRANGEMENT FOR TISSUE ANALYSIS BY RADIANT ENERGY DELIVERY AND RADIANT ENERGY COLLECTION	13/084,418	04-11-2011	8,386,023	USA
MULTI-CHANNEL CATHETER TIP	10/175,479	06-19-2002	7,672,713	USA
MULTI-CHANNEL CATHETER TIP	09175576	06-19-2003	2174686	Europe
MULTI-CHANNEL CATHETER TIP	2004-516017	06-19-2003	49-65803	Japan
MULTI-CHANNEL CATHETER TIP	12/715,945	03-02-2010	8,280,495	USA
APPARATUS AND METHOD FOR THE OPTICAL IMAGING OF TISSUE SAMPLES	09/871,578	05-31-2001	6,654,630	USA
APPARATUS AND METHOD FOR THE OPTICAL IMAGING OF TISSUE SAMPLES	2002-592992	05-30-2002	41-70771	Japan
SPECTROSCOPE FOR RECOVERING LIGHT FROM RE- ENTRANT ZONE OF ARTERIAL WALL	11/772,887	07-03-2007	7,873,406	USA

Title	Application No.	Filing Date	Patent No./Publ. No.	Country
MULTI-FIBER CATHETER PROBE ARRANGEMENT FOR TISSUE ANALYSIS OR TREATMENT	10/037,307	12-31-2001	6,873,868	USA
OPTICAL CATHETER WITH DUAL-STAGE BEAM REDIRECTOR	10/655,671	09-05-2003	7,742,805	USA
BALLOON CATHETER	09/871,771	05-31-2001	6,706,004	USA
MULTI-PATH OPTICAL CATHETER	09/871,770	05-31-2001	6,701,181	USA
REFERENCING OPTICAL CATHETERS	09/871,759	05-31-2001	6,615,062	USA
DEVICES FOR VULNERABLE PLAQUE DETECTION	10/668,012	09-22-2003	6,949,072	USA
DEVICES FOR VULNERABLE PLAQUE DETECTION	04784743	09-21-2004	1,667,576	Europe
DEVICES FOR VULNERABLE PLAQUE DETECTION	2006-528125	09-21-2004	49-72407	Japan
DEVICES FOR VULNERABLE PLAQUE DETECTION	2010-120418	05-26-2010	5769931	Japan
DEVICES FOR VULNERABLE PLAQUE DETECTION	2013-264566	12-20-2013	5770259	Japan

Title	Application No.	Filing Date	Patent No./Publ. No.	Country
OPTICAL CATHETER WITH DOUBLE-CLAD FIBER	10/218,939	08-14-2002	6,904,199	USA
OPTICAL COUPLER FOR ROTATING CATHETER	10/615,279	07-08-2003	7,616,321	USA
MULTI-CHANNEL OPTICAL COUPLER FOR SPINNING CATHETER	10/164,721	06-07-2002	6,895,137	USA
DISPLAY OF DIAGNOSTIC DATA	10/457,812	06-09-2003	7,292,715	USA
PROVIDING LOW-COHERENCE LIGHT	11/071,120	03-02-2005	7,310,357	USA
PHASE DISCRIMINATION FOR DETECTION OF VULNERABLE-PLAQUE	10/269,698	10-11-2002	7,313,432	USA
HIGH RESOLUTION INTRAVASCULAR ULTRASOUND IMAGING SYSTEMS AND METHODS	13/967,905	08-15-2013	2014/0276065	USA
HIGH RESOLUTION INTRAVASCULAR ULTRASOUND IMAGING SYSTEMS AND METHODS	PCT/US2014/013178	01-27-2014	WO 2014/143420	PCT

Title	Application No.	Filing Date	Patent No./Publ. No.	Country
MULTIMODAL CATHETER SYSTEM AND METHOD FOR INTRAVASCULAR ANALYSIS	12/437,022	05-07-2009	8,052,605	USA
SYSTEM AND METHOD FOR INTRAVASCULAR STRUCTURAL ANALYSIS COMPENSATION OF CHEMICAL ANALYSIS MODALITY	12/062,188	04-03-2008	2009/0253989	USA
SPECTROSCOPIC CATHETER SYSTEM WITH WIDELY TUNABLE SOURCE AND METHOD OF OPERATION	10/259,076	09-27-2002	7,535,935	USA
TUNABLE SPECTROSCOPIC SOURCE WITH POWER STABILITY AND METHOD OF OPERATION	10/314,648	12-09-2002	6,980,573	USA
SYSTEM AND METHOD FOR ASSESSING CATHETER CONNECTION USING RETURN LOSS	10/384,342	03-07-2003	7,132,645	USA
METHOD AND SYSTEM FOR SPECTRAL EXAMINATION OF VASCULAR WALLS THROUGH BLOOD DURING CARDIAC MOTION	10/646,271	08-22-2003	7,539,530	USA

Title	Application No.	Filing Date	Patent No./Publ. No.	Country
METHOD AND SYSTEM FOR INTRA LUMINAL THROMBUS DETECTION	11/619,387	01-03-2007	8,000,774	USA
DETECTION OF LIPID CORE PLAQUE CAP THICKNESS	13/220,347	08-29-2011	8,958,867	USA
DETECTION OF LIPID CORE PLAQUE CAP THICKNESS	14/621,963	02-13-2015	2015/0150461	USA
CHARACTERIZATION OF PLAQUE CAP INTEGRITY	62/131,140	03-10-2015	None	USA
DETECTION OF LIPID CORE PLAQUE CAP THICKNESS	2012-187282	08-28-2012	2013-046760	Japan

PATENT

REEL: 037013 FRAME: 0110

RECORDED: 11/11/2015