

## TRADEMARK ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

ETAS ID: TM324701

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT		
<b>NATURE OF CONVEYANCE:</b>	SECURITY INTEREST		
<b>CONVEYING PARTY DATA</b>			
<b>Name</b>	<b>Formerly</b>	<b>Execution Date</b>	<b>Entity Type</b>
Infraredx, Inc.		11/12/2014	CORPORATION: DELAWARE
<b>RECEIVING PARTY DATA</b>			
<b>Name:</b>	General Electric Capital Corporation		
<b>Street Address:</b>	Two Bethesda Metro Center, Suite 600		
<b>City:</b>	Bethesda		
<b>State/Country:</b>	MARYLAND		
<b>Postal Code:</b>	20814		
<b>Entity Type:</b>	CORPORATION: DELAWARE		
<b>PROPERTY NUMBERS Total: 5</b>			
<b>Property Type</b>	<b>Number</b>	<b>Word Mark</b>	
<b>Registration Number:</b>	4390744	X TVC INSIGHT CATHETER	
<b>Registration Number:</b>	4390743	X TVC IMAGING SYSTEM	
<b>Registration Number:</b>	3628159	LIPISCAN	
<b>Registration Number:</b>	3385838	INTRAVASCULAR CHEMOGRAPHY	
<b>Registration Number:</b>	2532547	INFRARED X	
<b>CORRESPONDENCE DATA</b>			
<b>Fax Number:</b>	8169838080		
<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>	8169838000		
<b>Email:</b>	pto-kc@huschblackwell.com		
<b>Correspondent Name:</b>	Kris Kappel		
<b>Address Line 1:</b>	4801 Main Street, Suite 1000		
<b>Address Line 4:</b>	Kansas City, MISSOURI 64112		
<b>ATTORNEY DOCKET NUMBER:</b>	511723.1		
<b>NAME OF SUBMITTER:</b>	Kris Kappel		
<b>SIGNATURE:</b>	/kris kappel/		
<b>DATE SIGNED:</b>	12/01/2014		
<b>Total Attachments: 15</b>			
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**INTELLECTUAL PROPERTY SECURITY AGREEMENT**

This **INTELLECTUAL PROPERTY SECURITY AGREEMENT** (this “**Agreement**”), dated as of November 12, 2014, is made by **INFRARED X, INC.**, a Delaware corporation (“**Grantor**”), in favor of **GENERAL ELECTRIC CAPITAL CORPORATION** (“**GE Capital**”), as agent (in such capacity, together with its successors and assigns in such capacity, the “**Agent**”) for the Lenders (as defined in the Loan Agreement referred to below).

**WITNESSETH:**

**WHEREAS**, pursuant to the Second Amended and Restated Loan and Security Agreement, dated as of November 12, 2014, (as the same may be amended, restated, replaced, supplemented or otherwise modified from time to time, the “**Loan Agreement**”), among Grantor, the other Loan Parties (as defined therein) thereto, the lenders from time to time party thereto (the “**Lenders**”) and Agent, the Lenders have severally agreed to make extensions of credit to the Grantor upon the terms and subject to the conditions set forth therein; and

**WHEREAS**, pursuant to the Loan Agreement, Grantor is required to execute and deliver this Agreement;

**NOW, THEREFORE**, in consideration of the premises and mutual covenants herein contained and to induce Agent and the Lenders to enter into the Loan Agreement and to induce the Lenders to make their respective extensions of credit to Grantor under the Loan Agreement, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Grantor hereby agrees with the Agent as follows:

Section 1. Defined Terms. Capitalized terms used herein without definition are used as defined in the Loan Agreement.

Section 2. Grant of Security Interest in Intellectual Property Collateral. Grantor, as collateral security for the prompt and complete payment and performance when due (whether at stated maturity, by acceleration or otherwise) of the Obligations hereby mortgages, pledges and hypothecates to Agent, for the benefit of itself and Lenders, and grants to Agent, for the benefit of itself and Lenders, a Lien on and security interest in, all of its right, title and interest in, to and under the following Collateral of Grantor (the “**Intellectual Property Collateral**”):

(a) all of its trade secrets and rights under any written agreement granting any right to use trade secrets;

(b) all of its copyrights and rights under any written agreement granting any right to use copyrights, including, without limitation, those referred to on Schedule 1 hereto, together with all renewals, reversions and extensions of the foregoing;

(c) all of its trademarks and rights under any written agreement granting any right to use trademarks, including, without limitation, those referred to on Schedule 2 hereto, together with all renewals, reversions and extensions of the foregoing;

(d) all goodwill of the business connected with the use of, and symbolized by, each such trademark covered by clause (c) above;

(e) all of its US patents and rights under any written agreement granting any right to use US patents, including, without limitation, those referred to on Schedule 3 hereto, together with all reissues, reexaminations, continuations, continuations-in-part, divisionals, renewals and extensions of the foregoing;

(f) all of its US patent applications and rights under any written agreement granting any right to use US patent applications, including, without limitation, those referred to on Schedule 4 hereto, together with all reissues, reexaminations, continuations, continuations-in-part, divisionals, renewals and extensions of the foregoing;

(g) all of its Patent Cooperation Treaty (“PCT”) patent applications and rights under any written agreement granting any right to use PCT patent applications, including, without limitation, those referred to on Schedule 5 hereto, together with all reissues, reexaminations, continuations, continuations-in-part, divisionals, renewals and extensions of the foregoing;

(h) all of its foreign patents and patent applications, and rights under any written agreement granting any right to use foreign patents and patent applications, including, without limitation, those referred to on Schedule 6 hereto, together with all reissues, reexaminations, continuations, continuations-in-part, divisionals, renewals and extensions of the foregoing;

(i) all applications, registrations, claims, products, awards, judgments, amendments, improvements and insurance claims related thereto now or hereafter owned or licensed by Grantor, or any claims for damages by way of any past, present, or future infringement of any of the foregoing, together with all accessions and additions thereto, proceeds and products thereof (including, without limitation, any proceeds resulting under insurance policies); provided, further, that the Intellectual Property Collateral shall include, without limitation, all cash, royalty fees, other proceeds, accounts and general intangibles that consist of rights of payment to or on behalf of Grantor or proceeds from the sale, licensing or other disposition of all or any part of, or rights in, the Intellectual Property Collateral by or on behalf of Grantor; and

(j) all income, royalties, proceeds and liabilities at any time due or payable or asserted under and with respect to any of the foregoing, including, without limitation, all rights to sue and recover at law or in equity for any past, present and future infringement, misappropriation, dilution, violation or other impairment thereof.

Section 3. Loan Agreement. The security interest granted pursuant to this Agreement is granted in conjunction with, and is in no way limiting, the security interest granted to Agent, for the benefit of itself and Lenders, pursuant to the Loan Agreement, and Grantor hereby acknowledges and agrees that the rights and remedies of Agent and Lenders with respect to the security interest in the Intellectual Property Collateral made and granted hereby are more

fully set forth in the Loan Agreement, the terms and provisions of each of which are incorporated by reference herein as if fully set forth herein.

Section 4. Grantor Remains Liable. Grantor hereby agrees that, anything herein to the contrary notwithstanding, Grantor shall retain full and complete responsibility for the prosecution, defense, enforcement or any other necessary or desirable actions in connection with their Intellectual Property subject to a security interest hereunder.

Section 5. Counterparts. This Agreement may be executed in any number of counterparts and by different parties in separate counterparts, each of which when so executed shall be deemed to be an original and all of which taken together shall constitute one and the same agreement. Signature pages may be detached from multiple separate counterparts and attached to a single counterpart.

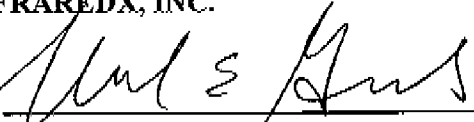
Section 6. Governing Law. This Agreement and the rights and obligations of the parties hereto shall be governed by, and construed and interpreted in accordance with, the law of the State of New York.

[Signature Pages Follow]

In witness whereof, Grantor has caused this Intellectual Property Security Agreement to be executed and delivered by its duly authorized officer as of the date first set forth above.

**GRANTOR:**

**INFRAREDIX, INC.**

By: 

Name: Michael Guarasci

Title: Chief Financial Officer

ACCEPTED AND AGREED  
as of the date first above written:

**GENERAL ELECTRIC CAPITAL CORPORATION,**  
as Agent

By: \_\_\_\_\_  
Name:  
Title: Its Duly Authorized Signatory

In witness whereof, Grantor has caused this Intellectual Property Security Agreement to be executed and delivered by its duly authorized officer as of the date first set forth above.

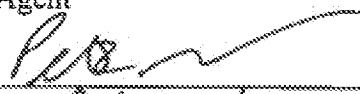
GRANTOR:

INFRARED<sub>X</sub>, INC.

By: \_\_\_\_\_  
Name: Michael Guarasci  
Title: Chief Financial Officer

ACCEPTED AND AGREED  
as of the date first above written:

GENERAL ELECTRIC CAPITAL CORPORATION,  
as Agent

By:  \_\_\_\_\_  
Name: Peter Gibson  
Title: Its Duly Authorized Signatory

**Schedule 1  
to  
Intellectual Property Security Agreement**

Copyrights

None.

SCHEDULE 1



**Schedule 2  
to  
Intellectual Property Security Agreement**

Trademarks

Country	Trademark #/ Serial #	Status	Date (filing or register)	Mark
US	4390744	Registered	8/27/2013	X TVC INSIGHT CATHETER
US	4390743	Registered	8/27/2013	X TVC IMAGING SYSTEM
US	3628159	Registered	5/26/2009	LIPISCAN
US	3385838	Registered	2/19/2008	INTRAVASCULAR CHEMOGRAPHY
US	2532547	Registered	1/22/2002	INFRARED X

SCHEDULE 2

**Schedule 3  
to  
Intellectual Property Security Agreement**

US Patents

Country	Patent #/ Application #	Status	Date (application or issue)	Title
US	<u>7.436.985</u>	Issued	2/3/2009	Near-infrared spectroscopic analysis of blood vessel walls
US	<u>7.376.456</u>	Issued	5/20/2008	Near-infrared spectroscopic analysis of blood vessel walls
US	<u>8.060.187</u>	Issued	11/15/2011	Near-infrared spectroscopic analysis of blood vessel walls
US	<u>7.450.241</u>	Issued	11/11/2008	Detecting vulnerable plaque
US	<u>7.426.410</u>	Issued	9/16/2008	Spectroscopy of deeply scattered light
US	<u>7.679.754</u>	Issued	3/16/2010	Arterial probe for OCT
US	<u>7.672.713</u>	Issued	3/2/2010	Multi channel catheter tip
US	<u>6.654.630</u>	Issued	11/25/2003	Apparatus and method for the optical imaging of tissue samples <b><u>(Licensed to MGH)</u></b>
US	<u>7.873.406</u>	Issued	1/18/2011	Spectroscope for recovering light from re-entrant zone of arterial wall

SCHEDULE 3

US	<u>6.873.868</u>	Issued	3/29/2005	Multi-fiber catheter probe arrangement for tissue analysis or treatment
US	<u>7.742.805</u>	Issued	6/22/2010	Optical catheter with dual-stage beam redirector
US	<u>6.706.004</u>	Issued	3/16/2004	Balloon catheter <u>(Licensed to MGH)</u>
US	<u>6.701.181</u>	Issued	3/2/2004	Multi-path optical catheter <u>(Licensed to MGH)</u>
US	<u>6.615.062</u>	Issued	9/2/2003	Referencing optical catheters <u>(Licensed to MGH)</u>
US	<u>6.949.072</u>	Issued	9/27/2005	Devices for vulnerable plaque detection
US	<u>6.904.199</u>	Issued	6/7/2005	Optical catheter with double-clad fiber
US	<u>7.616.321</u>	Issued	11/10/2009	Optical coupler for rotating catheter
US	<u>5.441.053</u>	Expired	8/15/1995	Apparatus and method for the optical imaging of tissue
US	<u>6.816.743</u>	Issued	11/9/2004	Methods and Apparatus for in vivo identification and characterization of vulnerable atherosclerotic plaques
US	<u>6.895.137</u>	Issued	5/17/2005	Multi-channel optical coupler for spinner catheter <u>(Licensed to MGH)</u>
US	<u>7.996.069</u>	Issued	8/9/2011	Spectroscopy of deeply scattered light

SCHEDULE 3

US	<u>7.292.715</u>	Issued	11/6/2007	Display of diagnostic data
US	<u>7.310.357</u>	Issued	12/18/2007	Providing low coherence light
US	<u>7.313.432</u>	Issued	12/25/2007	Phase discrimination for detection of vulnerable-plaque <b>(Licensed to MGH)</b>
US	<u>8.280.495</u>	Issued	10/2/2012	Multi channel catheter tip
US	<u>7.929.145</u>	Issued	4/19/2011	Arterial probe for OCT
US	<u>8.035.819</u>	Issued	10/11/2011	Arterial probe for OCT
US	<u>8.386.023</u>	Issued	2/26/2013	Tip for dual fiber catheter
US	<u>13/967905</u>	Pending	8/15/2013	High Resolution Intravascular Ultrasound Imaging Systems and Methods
US	<u>8.052.605</u>	Issued	11/8/2011	Multimodal catheter NIRS System and method for intravascular analysis and therapy
US	12/062,188	Pending	4/3/2008	NIRS System and method for intravascular structural analysis compensation of chemical analysis modality
US	<u>7.535.935</u>	Issued	5/19/2009	Spectroscopic catheter with widely tunable source and method of operation
US	<u>6.980.573</u>	Issued	12/27/2005	Tunable spectroscopic source with power stability and method of operation

SCHEDULE 3

US	<u>7.689.268</u>	Issued	3/30/2010	Spectroscopic unwanted signal filters for discrimination of vulnerable plaque and method therefor
US	<u>7.132.645</u>	Issued	11/7/2006	NIRS System and method for assessing catheter connection using return loss
US	<u>7.539.530</u>	Issued	5/26/2009	Method and NIRS System for spectral examination of vascular walls through blood during cardiac motion
US	<u>8.000.774</u>	Issued	8/16/2011	Method and NIRS System for Intr Luminal Thrombus Detection
US	<u>13/220.347</u>	Pending	8/29/2011	Detection of Lipid Core Plaque Cap Thickness

SCHEDULE 3

**Schedule 4  
to  
Intellectual Property Security Agreement**

PCT Patents

None.

SCHEDULE 4

**Schedule 5  
to  
Intellectual Property Security Agreement**

PCT Patent Applications

Country	Patent #/ Application #	Status	Date (application or issue)	Title
PCT	<u>PCT/US2014/0</u> <u>13178</u>	Pending	1/27/2014	High Resolution Intravascular Ultrasound Imaging Systems and Methods

**Schedule 6  
to  
Intellectual Property Security Agreement**

Non-US Patents and Patent Applications

Country	Patent #/ Application #	Status	Date (application or issue)	Title
Europe	<u>03767194</u>	Pending	8/5/2003	Near-infrared spectroscopic analysis of blood vessel walls
Japan	<u>4602765</u>	Issued	12/22/2010	Near-infrared spectroscopic analysis of blood vessel walls
Europe	<u>06816136</u>	Pending	9/29/2006	Detecting vulnerable plaque
Japan	5064796	Issued	8/17/2012	Spectroscopy of deeply scattered light
Europe	<u>1836627</u>	Issued and registered in France, Germany, Italy, UK, Portugal, Spain, Sweden, Switzerland	5/27/2004	Spectroscopy of deeply scattered light
Europe	1601288	Issued, registered in Germany	12/7/2005	Tip for Dual Fiber Catheter
Japan	<u>4606882</u>	Issued	10/15/2010	Tip for Dual Fiber Catheter



Europe	2174686	Issued, registered in Germany, france, Italy, UK	6/19/2003	Multi channel catheter tip
Japan	<u>4965803</u>	Issued	4/6/2012	Multi channel catheter tip
Japan	<u>4170771</u>	Issued	8/15/2008	Apparatus and method for the optical imaging of tissue samples  <b>(Licensed to MGH)</b>
Japan	<u>4476124</u>	Issued	3/19/2010	Multi-fiber catheter probe arrangement for tissue analysis or treatment
Europe	<u>1667566</u>	Issued, Registered in Germany, France, UK	3/5/2014	Devices for vulnerable plaque detection
Japan	<u>4972407</u>	Issued	4/13/2012	Devices for vulnerable plaque detection
Japan	<u>2010-120418</u>	Pending	9/21/2004	Devices for vulnerable plaque detection
Japan	<u>2013-264566</u>	Pending	9/21/2004	Devices for vulnerable plaque detection

SCHEDULE 6

IP Security Agreement  
DC 88650.0111 - 3385800  
KCP-4534189-1

RECORDED: 12/01/2014

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