

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT8051022

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY INTEREST

CONVEYING PARTY DATA

Name	Execution Date
SILK ROAD MEDICAL, INC.	05/27/2022

RECEIVING PARTY DATA

Name:	OXFORD FINANCE LLC
Street Address:	115 SOUTH UNION STREET, SUITE 300
City:	ALEXANDRIA
State/Country:	VIRGINIA
Postal Code:	22314

PROPERTY NUMBERS Total: 113

Property Type	Number
Patent Number:	10881393
Patent Number:	10369346
Patent Number:	10973502
Patent Number:	10188399
Patent Number:	11141259
Patent Number:	10779835
Patent Number:	10722239
Patent Number:	9669183
Patent Number:	10925709
Patent Number:	10328232
Patent Number:	10918504
Patent Number:	10828460
Patent Number:	10357242
Patent Number:	9655755
Patent Number:	9789242
Patent Number:	10085864
Patent Number:	10226598
Patent Number:	10426885
Patent Number:	10543307
Patent Number:	10286139

PATENT

Property Type	Number
Patent Number:	10485917
Patent Number:	10952882
Patent Number:	10709832
Patent Number:	10238853
Patent Number:	11097132
Patent Number:	9399118
Patent Number:	9662480
Patent Number:	11027104
Patent Number:	10039906
Patent Number:	10864357
Patent Number:	11103627
Patent Number:	11291799
Patent Number:	10390847
Patent Number:	10939929
Patent Number:	9265512
Patent Number:	9492637
Patent Number:	9861783
Patent Number:	10384034
Patent Number:	9561345
Patent Number:	9126018
Patent Number:	9241699
Patent Number:	9693789
Patent Number:	10226563
Patent Number:	10182801
Patent Number:	9526504
Patent Number:	9820761
Patent Number:	9833555
Patent Number:	9259215
Patent Number:	10159479
Patent Number:	9623228
Patent Number:	8002728
Patent Number:	8870805
Patent Number:	9662118
Patent Number:	7879011
Patent Number:	8308709
Patent Number:	9295817
Patent Number:	10272269
Patent Number:	8157760

Property Type	Number
Patent Number:	9669191
Patent Number:	9011467
Patent Number:	8574245
Patent Number:	8784355
Patent Number:	8545432
Patent Number:	8858490
Patent Number:	8740834
Patent Number:	9011364
Patent Number:	9138527
Patent Number:	9179909
Patent Number:	8545552
Patent Number:	7998104
Patent Number:	8343089
Patent Number:	8414516
Patent Number:	11364332
Patent Number:	11364369
Patent Number:	11389155
Patent Number:	11433226
Patent Number:	11654222
Application Number:	17108711
Application Number:	16530783
Application Number:	16906457
Application Number:	17220718
Application Number:	17398969
Application Number:	15049637
Application Number:	16939396
Application Number:	17308199
Application Number:	17074299
Application Number:	17179746
Application Number:	17149450
Application Number:	16951767
Application Number:	17193962
Application Number:	16894474
Application Number:	17000004
Application Number:	17345502
Application Number:	17206665
Application Number:	17237911
Application Number:	17345544

Property Type	Number
Application Number:	17406822
Application Number:	15399638
Application Number:	16999634
Application Number:	16999640
Application Number:	17092635
Application Number:	17307359
Application Number:	14227585
Application Number:	17555127
Application Number:	17470213
Application Number:	17773206
Application Number:	17773200
Application Number:	17749423
Application Number:	17684745
Application Number:	17899279
Application Number:	17749454
Application Number:	17951727
Application Number:	18071323

CORRESPONDENCE DATA

Fax Number:

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.

Phone: 2023704750

Email: ipteam@cogencyglobal.com

Correspondent Name: RODNEY BOULWARE

Address Line 1: 1025 CONNECTICUT AVE NW, SUITE 712

Address Line 2: COGENCY GLOBAL INC.

Address Line 4: WASHINGTON, D.C. 20036

ATTORNEY DOCKET NUMBER:	2062667 PT
NAME OF SUBMITTER:	YVETTE STOHLER
SIGNATURE:	/Yvette Stohler/
DATE SIGNED:	07/11/2023

Total Attachments: 8

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INTELLECTUAL PROPERTY SECURITY AGREEMENT

This Intellectual Property Security Agreement is entered into as of the May 27, 2022 by and between OXFORD FINANCE LLC, as collateral agent for the Lenders (the "Lenders") described in the Loan Agreement (in such capacity, the "Collateral Agent") and SILK ROAD MEDICAL, INC. ("Grantor").

RECITALS

A. Lenders have agreed to make certain advances of money and to extend certain financial accommodation to Grantor (the "Loans") in the amounts and manner set forth in that certain Loan and Security Agreement by and between Collateral Agent, the Lenders and Grantor dated the Effective Date (as the same may be amended, modified or supplemented from time to time, the "Loan Agreement"; capitalized terms used herein are used as defined in the Loan Agreement). The Lenders are willing to make the Loans to Grantor, but only upon the condition, among others, that Grantor shall grant to Collateral Agent, for the benefit of the Lenders, a security interest in certain Copyrights, Trademarks, Patents, and Mask Works to secure the obligations of Grantor under the Loan Agreement.

B. Pursuant to the terms of the Loan Agreement, Grantor has granted to Collateral Agent, for the benefit of the Lenders, a security interest in all of Grantor's right, title and interest, whether presently existing or hereafter acquired, in, to and under all of the Collateral.

NOW, THEREFORE, for good and valuable consideration, receipt of which is hereby acknowledged, and intending to be legally bound, as collateral security for the prompt and complete payment when due of its obligations under the Loan Agreement, Grantor hereby represents, warrants, covenants and agrees as follows:

AGREEMENT

To secure its obligations under the Loan Agreement, Grantor grants and pledges to Collateral Agent, for the benefit of the Lenders, a security interest in all of Grantor's right, title and interest in, to and under its Intellectual Property, to the extent constituting Collateral (including without limitation those Copyrights, Patents and Trademarks listed on Exhibits A, B and C hereto), and including without limitation all proceeds thereof (such as, by way of example but not by way of limitation, license royalties and proceeds of infringement suits), the right to sue for past, present and future infringements, all rights corresponding thereto throughout the world and all re-issues, divisions continuations, renewals, extensions and continuations-in-part thereof.

This security interest is granted in conjunction with the security interest granted to Collateral Agent, for the benefit of the Lenders, under the Loan Agreement. The rights and remedies of Collateral Agent with respect to the security interest granted hereby are in addition to those set forth in the Loan Agreement and the other Loan Documents, and those which are now or hereafter available to Collateral Agent, for the benefit of the Lenders, as a matter of law or equity. Each right, power and remedy of Collateral Agent provided for herein or in the Loan Agreement or any of the Loan Documents, or now or hereafter existing at law or in equity shall be cumulative and concurrent and shall be in addition to every right, power or remedy provided for herein and the exercise by Collateral Agent of any one or more of the rights, powers or remedies provided for in this Intellectual Property Security Agreement, the Loan Agreement or any of the other Loan Documents, or now or hereafter existing at law or in equity, shall not preclude the simultaneous or later exercise by any person, including Lender, of any or all other rights, powers or remedies.

Grantor hereby authorizes Collateral Agent to file and/or record, in the relevant office(s), including the United States Patent and Trademark Office and the United States Copyright Office, this Intellectual Property Security Agreement and any and all amendments and/or modifications hereto, including to the Exhibits attached hereto from time to time, and other documents, without the signature of Grantor either in Collateral Agent's name or in the name of Collateral Agent as Collateral Agent and attorney-in-fact for Grantor.

Sections 11 (Choice of Law and Venue; Jury Trial Waiver; Judicial Reference) of the Loan Agreement is incorporated herein by this reference as though set forth in full.

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IN WITNESS WHEREOF, the parties have caused this Intellectual Property Security Agreement to be duly executed by its officers thereunto duly authorized as of the first date written above.

GRANTOR:

Address of Grantor:

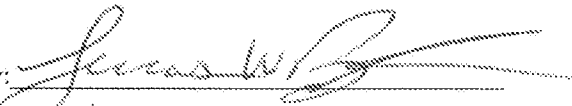
SILK ROAD MEDICAL, INC.

1213 Innsbruck Drive
Sunnyvale, CA 94089
Attn: Lucas Buchanan

By:

Name:

Title:


LUCAS W. BUCHANAN
CFO & COO

COLLATERAL AGENT:

Address of Lender:

OXFORD FINANCE LLC

115 South Union Street, Suite 300
Alexandria, VA 22314
Attn: Legal Department

By:

Name: Colette H. Featherly

Title: Senior Vice President

[Signature Page to Intellectual Property Security Agreement]

IN WITNESS WHEREOF, the parties have caused this Intellectual Property Security Agreement to be duly executed by its officers thereunto duly authorized as of the first date written above.

GRANTOR:

Address of Grantor:

1213 Innsbruck Drive
Sunnyvale, CA 94089
Attn: Lucas Buchanan

SILK ROAD MEDICAL, INC.

By: _____

Name: _____

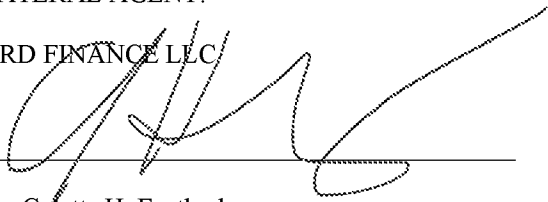
Title: _____

Address of Lender:

115 South Union Street, Suite 300
Alexandria, VA 22314
Attn: Legal Department

COLLATERAL AGENT:

OXFORD FINANCE LLC

By:  _____

Name: Colette H. Featherly

Title: Senior Vice President

[Signature Page to Intellectual Property Security Agreement]

EXHIBIT A

Copyrights

Description

Registration Number

Registration Date

None

EXHIBIT B

United States Patents

	Title:	Application No.	Patent No.	Issued or Published?	Application Date:
1.	Suture delivery device	16/177716	US10881393	Issued	2018-11-01
2.	SUTURE DELIVERY DEVICE	17/108711	US20210212679	Published	2020-12-01
3.	Systems and methods for treating a carotid artery	15/489055	US10369346	Issued	2017-04-17
4.	SYSTEMS AND METHODS FOR TREATING A CAROTID ARTERY	16/530783	US20200054871	Published	2019-08-02
5.	TRANSCAROTID VASCULAR ACCESS SHEATH	16/906457	US20200397472	Published	2020-06-19
6.	Vessel access and closure assist system and method	16/250825	US10973502	Published	2019-01-17
7.	VESSEL ACCESS AND CLOSURE ASSIST SYSTEM AND METHOD	17/220718	US20210290213	Published	2021-04-01
8.	BALLOON CATHETER FOR TRANSCAROTID PROCEDURES	17/398969	US20220047267	Published	2021-08-10
9.	Suture Delivery Device	15/049637	US20160242764	Published	2016-02-22
10.	Method and apparatus for treating a carotid artery	15/168786	US10188399	Issued	2016-05-31
11.	Fenestrated sheath for embolic protection during transcrotid carotid artery revascularization	16/171784	US11141259	Issued	2018-10-26
12.	Method and apparatus for treating a carotid artery	16/256229	US10779835	Issued	2019-01-24
13.	Method and apparatus for treating an arterial lesion	16/581034	US10722239	Issued	2019-09-24
14.	METHOD AND APPARATUS FOR TREATING AN ARTERIAL LESION	16/939396	US20200397446	Published	2020-07-27
15.	METHOD AND APPARATUS FOR TREATING AN ARTERIAL LESION	17/308199	US20210251634	Published	2021-05-05
16.	Endoluminal delivery of anesthesia	15/082257	US9669183	Issued	2016-03-28
17.	Systems and methods for transcatheter aortic valve treatment	15/141060	US10925709	Issued	2016-04-28
18.	Endoluminal delivery of anesthesia	15/613921	US10328232	Issued	2017-06-05
19.	Vascular implant	15/901502	US10918504	Issued	2018-02-21
20.	Endoluminal delivery of anesthesia	16/411543	US10828460	Issued	2019-05-14
21.	ENDOLUMINAL DELIVERY OF ANESTHESIA	17/074299	US20210205571	Published	2020-10-19
22.	SYSTEMS AND METHODS FOR TRANSCATHETER AORTIC VALVE TREATMENT	17/179746	US20210244522	Published	2021-02-19
23.	VASCULAR IMPLANT	17/149450	US20210298929	Published	2021-01-14
24.	EMBOLIC PROTECTION IN CONNECTION WITH TRANSCAROTID CAROTID ARTERY REVASCULARIZATION	16/951767	US20210145453	Published	2020-11-18
25.	SYSTEMS AND METHODS FOR ASPIRATING FROM A BODY LUMEN	17/193962	US20210290257	Published	2021-03-05
26.	Suture delivery device	14/935252	US10357242	Issued	2015-11-06
27.	Systems and methods for treating a carotid artery	15/044493	US9655755	Issued	2016-02-16
28.	Methods and systems for establishing retrograde carotid arterial blood flow	15/168809	US9789242	Issued	2016-05-31
29.	Systems and methods for treating a carotid artery	15/601587	US10085864	Issued	2017-05-22
30.	Interventional catheter system and methods	15/613891	US10226598	Issued	2017-06-05
31.	Methods and systems for establishing retrograde carotid arterial blood flow	15/728747	US10426885	Issued	2017-10-10
32.	Methods and systems for establishing retrograde carotid arterial blood flow	16/008703	US10543307	Issued	2018-06-14
33.	Methods and systems for establishing retrograde carotid arterial blood flow	16/210533	US10286139	Issued	2018-12-05
34.	Methods and systems for establishing retrograde carotid arterial blood flow	16/410485	US10485917	Issued	2019-05-13
35.	Systems and methods for treating a carotid artery	16/148849	US10952882	Issued	2018-10-01
36.	Methods and systems for establishing retrograde carotid arterial blood flow	16/581061	US10709832	Issued	2019-09-24

	Title:	Application No.	Patent No.	Issued or Published?	Application Date:
37.	METHODS AND SYSTEMS FOR ESTABLISHING RETROGRADE CAROTID ARTERIAL BLOOD FLOW	16/894474	US20200297912	Published	2020-06-05
38.	SUTURE DELIVERY DEVICE	17/000004	US20200390438	Published	2020-08-21
39.	METHODS AND SYSTEMS FOR ESTABLISHING RETROGRADE CAROTID ARTERIAL BLOOD FLOW	17/345502	US20210299343	Published	2021-06-11
40.	SYSTEMS AND METHODS FOR TREATING A CAROTID ARTERY	17/206665	US20210307945	Published	2021-03-19
41.	Methods and systems for establishing retrograde carotid arterial blood flow	15/093406	US10238853	Issued	2016-04-07
42.	Devices and methods for endoluminal delivery of either fluid or energy for denervation	16/353492	US11097132	Issued	2019-03-14
43.	METHODS AND SYSTEMS FOR ESTABLISHING RETROGRADE CAROTID ARTERIAL BLOOD FLOW	17/237911	US20210236790	Published	2021-04-22
44.	METHODS AND SYSTEMS FOR ESTABLISHING RETROGRADE CAROTID ARTERIAL BLOOD FLOW	17/345544	US20210299425	Published	2021-06-11
45.	DEVICES AND METHODS FOR ENDOLUMINAL DELIVERY OF EITHER FLUID OR ENERGY FOR DENERVATION	17/406822	US20220040502	Published	2021-08-19
46.	Methods and devices for transcarotid access	15/005770	US9399118	Issued	2016-01-25
47.	Methods and devices for transcarotid access	15/210770	US9662480	Issued	2016-07-14
48.	SYSTEMS AND METHODS FOR TRANSCATHETER AORTIC VALVE TREATMENT	15/399638	US20170209260	Published	2017-01-05
49.	Methods and devices for transcarotid access	15/641966	US11027104	Issued	2017-07-05
50.	Methods and devices for transcarotid access	15/606381	US10039906	Issued	2017-05-26
51.	Methods and devices for transcarotid access	16/056208	US10864357	Issued	2018-08-06
52.	Methods and systems for treatment of acute ischemic stroke	16/297348	US11103627	Issued	2019-03-08
53.	Transcarotid neurovascular catheter	16/544083	US11291799	Issued	2019-08-19
54.	SYSTEMS AND METHODS FOR TRANSCATHETER AORTIC VALVE TREATMENT	16/999634	US20200375728	Published	2020-08-21
55.	SYSTEMS AND METHODS FOR TRANSCATHETER AORTIC VALVE TREATMENT	16/999640	US20200375729	Published	2020-08-21
56.	METHODS AND DEVICES FOR TRANSCAROTID ACCESS	17/092635	US20210228847	Published	2020-11-09
57.	METHODS AND DEVICES FOR TRANSCAROTID ACCESS	17/307359	US20210322738	Published	2021-05-04
58.	Systems and methods for aspirating from a body lumen	15/628190	US10390847	Issued	2017-06-20
59.	Systems and methods for aspirating from a body lumen	16/547042	US10939929	Issued	2019-08-21
60.	Transcarotid neurovascular catheter	14/569365	US9265512	Issued	2014-12-12
61.	Transcarotid neurovascular catheter	15/050039	US9492637	Issued	2016-02-22
62.	Transcarotid neurovascular catheter	15/299146	US9861783	Issued	2016-10-20
63.	Transcarotid neurovascular catheter	15/728915	US10384034	Issued	2017-10-10
64.	Methods and systems for treatment of acute ischemic stroke	14/576953	US9561345	Issued	2014-12-19
65.	Methods and devices for transcarotid access	14/575199	US9126018	Issued	2014-12-18
66.	Methods and devices for transcarotid access	14/537316	US9241699	Issued	2014-11-10
67.	Systems and methods for aspirating from a body lumen	14/221917	US9693789	Issued	2014-03-21
68.	Methods and systems for treatment of acute ischemic stroke	12/645179	US10226563	Issued	2009-12-22
69.	Vessel access and closure assist system and method	14/710400	US10182801	Issued	2015-05-12
70.	Method and apparatus for treating a carotid artery	14/622310	US9526504	Issued	2015-02-13
71.	Rapid aspiration thrombectomy system and method	15/015799	US9820761	Issued	2016-02-04
72.	Methods and systems for establishing retrograde carotid arterial blood flow	14/475346	US9833555	Issued	2014-09-02
73.	Systems and methods for treating a carotid artery	14/511830	US9259215	Issued	2014-10-10
74.	Suture delivery device	13/961746	US10159479	Issued	2013-08-07
75.	Systems and methods for treating a carotid artery	13/816670	US9623228	Issued	2011-08-05
76.	Method and apparatus for treating a carotid artery	12/176282	US8002728	Issued	2008-07-18
77.	Method and apparatus for treating a carotid artery	12/966974	US8870805	Issued	2010-12-13
78.	Method and apparatus for treating a carotid artery	14/508354	US9662118	Issued	2014-10-07
79.	Endoluminal delivery of anesthesia	11/282222	US7879011	Issued	2005-11-18

	Title:	Application No.	Patent No.	Issued or Published?	Application Date:
80.	Endoluminal delivery of anesthesia	13/017905	US8308709	Issued	2011-01-31
81.	Endoluminal delivery of anesthesia	13/674792	US9295817	Issued	2012-11-12
82.	Devices and methods for endoluminal delivery of either fluid or energy for denervation	14/078149	US10272269	Issued	2013-11-12
83.	Methods and systems for establishing retrograde carotid arterial blood flow	12/176250	US8157760	Issued	2008-07-18
84.	Interventional catheter system and methods	12/366287	US9669191	Issued	2009-02-05
85.	Suture delivery device	12/540341	US9011467	Issued	2009-08-12
86.	Suture delivery device	12/633730	US8574245	Issued	2009-12-08
87.	Methods and systems for establishing retrograde carotid arterial blood flow	12/835660	US8784355	Issued	2010-07-13
88.	System and methods for controlling retrograde carotid arterial blood flow	12/793543	US8545432	Issued	2010-06-03
89.	Systems and methods for treating a carotid artery	12/834869	US8858490	Issued	2010-07-12
90.	Methods and systems for establishing retrograde carotid arterial blood flow	13/050855	US9740834	Issued	2011-03-17
91.	Methods and systems for establishing retrograde carotid arterial blood flow	13/050876	US9011364	Issued	2011-03-17
92.	System and methods for controlling retrograde carotid arterial blood flow	14/042503	US9138527	Issued	2013-09-30
93.	Suture delivery device	14/071485	US9179909	Issued	2013-11-04
94.	Systems and methods for transcatheter aortic valve treatment	13/034513	US8545552	Issued	2011-02-24
95.	Methods and Systems for Establishing Retrograde Carotid Arterial Blood Flow	14/227585	US20140296769	Published	2014-03-27
96.	Method and apparatus for treating a carotid artery	10/996301	US7998104	Issued	2004-11-22
97.	Method and apparatus for treating a carotid artery	12/753027	US8343089	Issued	2010-04-01
98.	Method and apparatus for treating a carotid artery	12/753039	US8414516	Issued	2010-04-01
99.	Methods and systems for establishing retrograde carotid arterial blood flow		11364332	Issued	6/21/2022
100.	Interventional catheter system and methods		11364369	Issued	6/21/2022
101.	Suture delivery device		11389155	Issued	7/19/2022
102.	Methods and systems for establishing retrograde carotid arterial blood flow		11433226	Issued	9/6/2022
103.	Methods and systems for treatment of acute ischemic stroke		11654222	Issued	5/23/2023
104.	VASCULAR CONDUIT TO FACILITATE TEMPORARY DIRECT ACCESS OF A VESSEL	17/555,127		Published	12/17/2021
105.	FENESTRATED SHEATH FOR EMBOLIC PROTECTION DURING TRANSCAROTID CAROTID ARTERY REVASCULARIZATION	17/470,213		Published	9/9/2021
106.	SYSTEMS AND METHODS FOR TRANSCATHETER AORTIC VALVE TREATMENT	17/773,206		Published	11/2/2020
107.	SYSTEMS AND METHODS FOR NEUROVASCULAR INTERVENTIONS	17/773,200		Published	10/30/2020
108.	INTERVENTIONAL CATHETER SYSTEM AND METHODS	17/749,423		Published	5/20/2022
109.	TRANSCAROTID NEUROVASCULAR CATHETER	17/684,745		Published	3/2/2022
110.	DETECTION AND PRESSURE RELIEF FOR PERCUTANEOUS CLOSURE OF A VESSEL	17/899,279		Published	8/30/2022
111.	METHODS AND SYSTEMS FOR ESTABLISHING RETROGRADE CAROTID ARTERIAL BLOOD FLOW	17/749,454		Published	5/20/2022
112.	SHEATH AND DELIVERY SYSTEMS AND METHODS FOR TRANSCATHETER DEVICE IMPLANTATION	17/951,727		Published	9/23/2022
113.	STENTS HAVING BRIDGE LENGTH PATTERN VARIATIONS	18/071,323		Published	11/29/2022

EXHIBIT C

United States Trademarks

USPTO Trademark Search					
	Word/Mark	U.S. Serial No.	U.S. Registration	USPTO Ref. No.	Filing or Registration Date
1.	TCAR	97646316			10/25/2022
2.	TCAR	97388967			2022-04-29
3.	TCAR	97388865			2022-04-29
4.	TCAR	90069179	6681199		2020-07-23
5.	ENROUTE ENFLATE	90289166			2020-10-30
6.	NOVIS TRANSCAROTID NEUROPROTECTION SYSTEM	88690327			2019-11-13
7.	NOVIS	88798274			2020-02-14
8.	NITE	88801940	6531544		2020-02-19
9.	CARTWHEEL CULTURE	88682051	6225257		2019-11-06
10.	ENHANCE	87668931	5572045		2017-11-02
11.	ENROUTE	86292751	4666997		2014-05-27
12.	SILKROAD MEDICAL	85952497	4610772		2013-06-06
13.	SILKROAD M E D I C A L	85567851	4251626		2012-03-13
14.	SILKROAD	85005119	4407336		2010-04-02