

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT7700416

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY INTEREST
CONVEYING PARTY DATA	
Name	Execution Date
CSA MEDICAL, INC.	11/01/2022
RECEIVING PARTY DATA	
Name:	CHV III, L.P.
Street Address:	4600 EDMUNDSON ROAD
City:	SAINT LOUIS
State/Country:	MISSOURI
Postal Code:	63134
Name:	SV LIFE SCIENCES FUND V, L.P.
Street Address:	201 WASHINGTON STREET, SUITE 3900
Internal Address:	ONE BOSTON PLACE
City:	BOSTON
State/Country:	MASSACHUSETTS
Postal Code:	02108
Name:	SV LIFE SCIENCES FUND V, STRATEGIC PARTNERS, L.P.
Street Address:	201 WASHINGTON STREET, SUITE 3900
Internal Address:	ONE BOSTON PLACE
City:	BOSTON
State/Country:	MASSACHUSETTS
Postal Code:	02108
Name:	INTERSOUTH PARTNERS VII, L.P.
Street Address:	4711 HOPE VALLEY RD.
Internal Address:	SUITE 4F-632
City:	DURHAM
State/Country:	NORTH CAROLINA
Postal Code:	27707
Name:	MATHERS ASSOCIATES
Street Address:	5 SENTRY PARKWAY WEST, SUITE 200
City:	BLUE BELL
State/Country:	PENNSYLVANIA
Postal Code:	60606

PATENT

Name:	DISRUPTIVE INNOVATION FUND, LP
Street Address:	200 STATE STREET
City:	BOSTON
State/Country:	MASSACHUSETTS
Postal Code:	02109
Name:	BHCM CSA MEDICAL, LLC
Street Address:	1519 SUMMIT AVE., SUITE 200
City:	RICHMOND
State/Country:	VIRGINIA
Postal Code:	23230
Name:	ALFRED M. RANKIN, JR. TRUST
Street Address:	7421 MARKILL ROAD
City:	WAITE HILL
State/Country:	OHIO
Postal Code:	44094
Name:	BENMIKE INVESTMENT CO. LLC
Street Address:	1375 E. 9TH STREET, SUITE 1700
City:	CLEVELAND
State/Country:	OHIO
Postal Code:	44114
Name:	CHARLES G. BROWN, INC.
Street Address:	7850 WALKER DR. 4TH FLOOR
City:	GREENBELT
State/Country:	MARYLAND
Postal Code:	20770
Name:	CLAIBORNE R. RANKIN REVOCABLE TRUST U/A/D 6/22/71
Street Address:	36779 CEDAR ROAD
City:	GATES MILL
State/Country:	OHIO
Postal Code:	44040
Name:	DAVID P BROWN
Street Address:	15901 IRISH AVENUE
City:	MONKTON
State/Country:	MARYLAND
Postal Code:	21111
Name:	E. DALE INKLEY
Street Address:	6000 RIVERSIDE DRIVE, APT. #A367
City:	DUBLIN
State/Country:	OHIO

Postal Code:	43017
Name:	ENSIGN COWELL
Street Address:	2170 COVENTRY ROAD
City:	CLEVELAND HEIGHTS
State/Country:	OHIO
Postal Code:	44118
Name:	EVERGREEN VENTURES LTD
Street Address:	1100 SUPERIOR AVE. EAST, SUITE 700
City:	CLEVELAND
State/Country:	OHIO
Postal Code:	44114
Name:	G. BRIAN KRONEBERGER JR.
Street Address:	22 MISTY HOLLOW CT.
City:	PHOENIX
State/Country:	MARYLAND
Postal Code:	21131
Name:	G. RUSSELL LINCOLN
Street Address:	7471 FOXBORO ROAD
City:	GATES MILL
State/Country:	OHIO
Postal Code:	44040
Name:	G. RUSSELL LINCOLN REVOCABLE TRUST DTD 10/31/2007
Street Address:	7471 FOXBORO ROAD
City:	GATES MILL
State/Country:	OHIO
Postal Code:	44040
Name:	GUIDE MEDICAL VENTURES, LLC
Street Address:	2 OLIVER STREET, 4TH FLOOR
City:	BOSTON
State/Country:	MASSACHUSETTS
Postal Code:	02109
Name:	H&B INVESTMENT PARTNERSHIP
Street Address:	22901 AURORA ROAD
Internal Address:	PO BOX 46739
City:	BEDFORD HEIGHTS
State/Country:	OHIO
Postal Code:	44146
Name:	JAMES J MAHONEY JR.
Street Address:	86 WINDING RIVER ROAD

City:	NEEDHAM
State/Country:	MASSACHUSETTS
Postal Code:	02492
Name:	MARC S DAVIDSON
Street Address:	44 WATERLOO CIR
City:	DOVER
State/Country:	NEW HAMPSHIRE
Postal Code:	03820
Name:	MARK V. DYER
Street Address:	225 SCHILLING CIRCLE, SUITE 250
City:	HUNT VALLEY
State/Country:	MARYLAND
Postal Code:	21031
Name:	MEDTECH INVESTMENTS, LLC
Street Address:	90 WEATHERS STREET
City:	YOUNGSVILLE
State/Country:	NORTH CAROLINA
Postal Code:	27596
Name:	MICHAEL A ELLIS
Street Address:	1375 E. 9TH STREET, SUITE 1700
City:	CLEVELAND
State/Country:	OHIO
Postal Code:	44114
Name:	MWK TRUST, MIRIAM WINDER-KELLY TTE
Street Address:	11306 WOODLAND DRIVE
City:	LUTHERVILLE
State/Country:	MARYLAND
Postal Code:	21093
Name:	NATHANIEL SMITH
Street Address:	1745 EPPING ROAD
City:	GATES MILLS
State/Country:	OHIO
Postal Code:	44040
Name:	NATIONAL FINANCIAL SERVICES/ FIDELITY INVESTMENTS CUSTODIAN FBO STEVEN E. SCHAEFER IRA
Street Address:	317 MEADOWCROFT LANE
City:	LUTHERVILLE
State/Country:	MARYLAND
Postal Code:	21093

Name:	TIM VON HERMANN
Street Address:	23599 SHAKER BLVD. SHAKER
City:	SHAKER HEIGHTS
State/Country:	OHIO
Postal Code:	44122
Name:	RICHARD T SCHWARZ
Street Address:	21850 SHELBOURNE ROAD
City:	SHAKER HEIGHTS
State/Country:	OHIO
Postal Code:	44122
Name:	STEVEN E. PECK
Street Address:	6 BRETT MANOR COURT HUNT
City:	HUNT VALLEY
State/Country:	MARYLAND
Postal Code:	21030
Name:	STEVEN E. SCHAEFER
Street Address:	604 BOXMERE COURT
City:	LUTHERVILLE
State/Country:	MASSACHUSETTS
Postal Code:	21093
Name:	SYCAMORE FUND 1, LLC
Street Address:	36779 CEDAR ROAD
City:	GATES MILLS
State/Country:	OHIO
Postal Code:	44040
Name:	SYMARK LLC
Street Address:	2617 BULRUSH LANE
City:	NAPLES
State/Country:	FLORIDA
Postal Code:	34105
Name:	TIMOTHY T. WEGLIICKI
Street Address:	10605 BROOKLAWN RD
City:	OWINGS MILLS
State/Country:	MARYLAND
Postal Code:	21317
Name:	TOM MELITA
Street Address:	7860 ROLLING ACRES
City:	SUPERIOR TOWNSHIP
State/Country:	MICHIGAN

Postal Code:	48198
Name:	VICTOIRE G. RANKIN TRUST
Street Address:	7421 MARKILL ROAD
City:	WAITE HILL
State/Country:	OHIO
Postal Code:	44094
Name:	WILLIAM E. CONWAY UTA DATED 12/12/80 AS AMENDED
Street Address:	P.O. BOX 87
City:	CHARDON
State/Country:	OHIO
Postal Code:	44024

PROPERTY NUMBERS Total: 25

Property Type	Number
Patent Number:	10492843
Patent Number:	11478290
Patent Number:	9867648
Patent Number:	9301796
Patent Number:	9144449
Patent Number:	9820797
Application Number:	16663773
Application Number:	11446075
Application Number:	17946773
Application Number:	10869709
Application Number:	14012320
Application Number:	11019986
Application Number:	15668004
Application Number:	15158698
Application Number:	15659199
Application Number:	11202559
Application Number:	11207117
Application Number:	10792085
Application Number:	15814900
Application Number:	15914510
Application Number:	15874414
Application Number:	11389244
Application Number:	16279555
Application Number:	11364065
Application Number:	63412606

CORRESPONDENCE DATA**Fax Number:** (617)310-9345*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:** 6174392345**Email:** mdaniels@nutter.com**Correspondent Name:** MALISSA DANIELS**Address Line 1:** 155 SEAPORT BLVD.**Address Line 4:** BOSTON, MASSACHUSETTS 02210

NAME OF SUBMITTER:	SUZANNE HAMEL
SIGNATURE:	/s/ Suzanne Hamel
DATE SIGNED:	12/16/2022
	This document serves as an Oath/Declaration (37 CFR 1.63).

Total Attachments: 11

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GRANT OF SECURITY INTEREST
PATENTS

THIS GRANT OF SECURITY INTEREST PATENTS, dated as of November 1, 2022, is executed by CSA MEDICAL, INC., a Maryland corporation with an address of 131 Hartwell Avenue, Lexington, Massachusetts 02421 (“Debtor”), in favor of each of the parties listed on Schedule 1 hereto to the extent each such party holds a Subordinated Secured Convertible Promissory Note issued by the Debtor pursuant to the Agreement (as defined below) (each such party holding a Secured Convertible Promissory Note issued pursuant to the Agreement, a “Secured Party” and collectively, the “Secured Parties”).

A. Pursuant to a certain Convertible Note and Warrant Purchase Agreement, dated on or about the date hereof (the “Agreement”) by and between Debtor and the Secured Parties, the Secured Parties have agreed to make loans to Debtor upon the terms and subject to the conditions set forth therein;

B. Debtor owns the patents and/or applications for patents, more particularly described on Schedules 2-A and 2-B annexed hereto as part hereof (collectively, the “Patents”) which represent all of the Debtor’s registered patent and/or applications for patents;

C. Pursuant to the Agreement and related Security Agreement (as defined in the Agreement), Debtor has granted to Secured Parties a security interest in all right, title and interest of Debtor in and to the Patents, together with any reissue, continuation, continuation-in-part or extension thereof, and all proceeds thereof, including any and all causes of action which may exist by reason of infringement thereof for the full term of the Patents (the “Patent Collateral”), to secure the prompt payment, performance and observance of the Obligations (as defined in the Agreement);

NOW, THEREFORE, for good and valuable consideration, receipt of which is hereby acknowledged, Debtor does hereby further grant to Secured Parties a security interest in the Patent Collateral to secure the prompt payment, performance and observance of the Obligations.

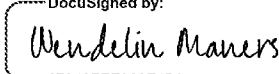
Debtor does hereby further acknowledge and affirm that the rights and remedies of Secured Parties with respect to the security interest in the Patent Collateral granted hereby are more fully set forth in the Security Agreement, the terms and provisions of which are hereby incorporated herein by reference as if fully set forth herein.

Debtor hereby agrees to notify the Secured Parties of any additional registered patent and/or applications for patents which may be filed after the date hereof, which will become Patents hereunder.

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IN WITNESS WHEREOF, Debtor has caused this instrument to be executed as of the day and year first written above.

CSA MEDICAL, INC.

DocuSigned by:

By: _____
Name: Wendelin Maners
Title: President and Chief Executive Officer

[Signature Page to Grant of Security Interest Patents]

PATENT
REEL: 062132 FRAME: 0367

SCHEDULE 1

Names of Secured Parties

Ascension Health Ventures (CHV III, L.P.) 4600 Edmundson Road Saint Louis, MO 63134
SV Life Sciences Fund V, L.P. SV Life Sciences One Boston Place 201 Washington Street, Suite 3900 Boston, MA 02108 Attn: Dana O'Brien
SV Life Sciences Fund V, Strategic Partners, L.P. SV Life Sciences One Boston Place 201 Washington Street, Suite 3900 Boston, MA 02108 Attn: Dana O'Brien
Intersouth Partners VII, L.P. 102 City Hall Plaza Suite 200 Durham, NC 27701
Mathers Associates 5 Sentry Parkway West, Suite 200 Blue Bell, PA 60606 19422
Disruptive Innovation Fund, LP 4 South Market Building Boston, MA 02109
BHCM CSA Medical, LLC 1519 Summit Ave suite 200 Richmond Va 23230
Alfred M. Rankin, Jr. Trust 7421 Markill Road Waite Hill, Ohio 44094
Benmike Investment Co. LLC 1375 E. 9 th Street, Suite 1700 Cleveland, Ohio 44114
Charles G. Brown, Inc.

<p>C/O Mike Brown 7850 Walker Dr. 4th floor Greenbelt MD 20770</p>
<p>Claiborne R. Rankin Revocable Trust u/a/d 6/22/71 36779 Cedar Road Gates Mill, Ohio 44040-9721</p>
<p>David P. Brown 15901 Irish Avenue Monkton, MD 21111</p>
<p>E. Dale Inkley 5126 East Farnhurst Road Lyndhurst, OH 44124</p>
<p>Ensign Cowell 2233 Demington Drive Cleveland, OH 44106</p>
<p>Evergreen Ventures LTD c/o Clearstead 1100 Superior Ave. East, Suite 700 Cleveland, Ohio 44114</p>
<p>G. Brian Kroneberger, Jr. (incl. IRA shares) 225 Schilling Circle, Suite 250 Hunt Valley, MD 21031</p>
<p>G. Russell Lincoln 7471 Foxboro Road Gates Mills, OH 44040</p>
<p>G. Russell Lincoln Revocable Trust dtd 10/31/2007 7471 Foxboro Road Gates Mills, OH 44040</p>
<p>Guide Medical Ventures, LLC 2 Oliver Street, 4th Floor Boston, MA 02109</p>
<p>H&B Investment Partnership P.O. Box 46739 22901 Aurora Road Bedford Heights, Ohio 44146</p>
<p>James J. Mahoney Jr. 86 Winding River Road Needham, MA 02492</p>

<p>Marc S. Davidson 44 Waterloo Cir Dover, NH 03820</p>
<p>Mark V. Dyer 225 Schilling Circle, Suite 250 Hunt Valley, MD 21031</p>
<p>Medtech Investments, LLC 90 Weathers Street Youngsville NC 27596</p>
<p>Michael A. Ellis 1375 E. 9th Street, Suite 1700 Cleveland, Ohio 44114</p>
<p>Millennium Trust Co., LLC Custodian FBO E. D. Inkley Roth IRA 5126 East Farnhurst Road Lyndhurst, OH 44124</p>
<p>MWK Trust, Miriam Winder-Kelly TTE 11306 Woodland Drive Lutherville, MD 21093-3515</p>
<p>Nathaniel T. Smith 1745 Epping Road Gates Mills, OH 44040</p>
<p>National Financial Services/ Fidelity Investments Custodian fbo Steven E. Schaefer IRA 317 Meadowcroft Lane Lutherville, MD 21093</p>
<p>Tim Von Hermann 23599 Shaker Blvd. Shaker Heights, OH 44122</p>
<p>Richard T. Schwarz 21850 Shelbourne Road Shaker Heights, OH 44122</p>
<p>Steven E. Peck 6 Brett Manor court Hunt Valley, MD 21030</p>
<p>Steven E. Schaefer 604 Boxmere Court Lutherville, MD 21093</p>
<p>Sycamore Fund 1, LLC</p>

36779 Cedar Road Gates Mills, Ohio 44040-9721
Symark LLC 2617 Bulrush Lane Naples, FL 34105
Timothy T. Weglicki 10605 Brooklawn Rd Owings Mills, MD 21317
Tom Melita 7860 Rolling Acres Superior Township, MI 48198
Victoire G. Rankin Trust 7421 Markill Road Waite Hill, Ohio 44094
William E. Conway UTA dated 12/12/80 as Amended P.O. Box 87 Chardon, OH 44024

**SCHEDULE 2-A TO GRANT OF SECURITY INTEREST
PATENTS**

Atty Docket	Jurisdiction	Title	Serial	Status
CSA-001	US	METHOD AND SYSTEM FOR CONSISTENT, REPEATABLE, AND SAFE CRYOSPRAY TREATMENT OF AIRWAY TISSUE	10492843	Granted
CSA-001D1	US	METHOD AND SYSTEM FOR CONSISTENT, REPEATABLE, AND SAFE CRYOSPRAY TREATMENT OF AIRWAY TISSUE	11478290	Granted
CSA-001AU	Australia	METHOD AND SYSTEM FOR CONSISTENT, REPEATABLE, AND SAFE CRYOSPRAY TREATMENT OF AIRWAY TISSUE	2015-269369	Granted
CSA-001AUD1	Australia	METHOD AND SYSTEM FOR CONSISTENT, REPEATABLE, AND SAFE CRYOSPRAY TREATMENT OF AIRWAY TISSUE	2020201833	Granted
CSA-001EP	European Patent Convention	METHOD AND SYSTEM FOR CONSISTENT, REPEATABLE, AND SAFE CRYOSPRAY TREATMENT OF AIRWAY TISSUE	3151770	Granted
CSA-001JP	Japan	METHOD AND SYSTEM FOR CONSISTENT, REPEATABLE, AND SAFE CRYOSPRAY TREATMENT OF AIRWAY TISSUE	6383868	Granted
CSA-001JPD1	Japan	METHOD AND SYSTEM FOR CONSISTENT, REPEATABLE, AND SAFE CRYOSPRAY TREATMENT OF AIRWAY TISSUE	6559293	Granted
CSA-001NL	Netherlands	METHOD AND SYSTEM FOR CONSISTENT, REPEATABLE, AND SAFE CRYOSPRAY TREATMENT OF AIRWAY TISSUE	3151770	Granted
CSA-001IE	Ireland	METHOD AND SYSTEM FOR CONSISTENT, REPEATABLE, AND SAFE CRYOSPRAY TREATMENT OF AIRWAY TISSUE	3151770	Granted
CSA-001GB	United Kingdom	METHOD AND SYSTEM FOR CONSISTENT, REPEATABLE, AND SAFE CRYOSPRAY TREATMENT OF AIRWAY TISSUE	3151770	Granted
CSA-001FR	France	METHOD AND SYSTEM FOR CONSISTENT, REPEATABLE, AND SAFE CRYOSPRAY TREATMENT OF AIRWAY TISSUE	3151770	Granted

CSA-001DE	Germany	METHOD AND SYSTEM FOR CONSISTENT, REPEATABLE, AND SAFE CRYOSPRAY TREATMENT OF AIRWAY TISSUE	3151770	Granted
CSA-002C1	US	METHOD AND SYSTEM FOR CONSISTENT, REPEATABLE, AND SAFE CRYOSPRAY TREATMENT OF AIRWAY TISSUE	9867648	Granted
CSA-003	US	CRYOSURGERY SYSTEM	9301796	Granted
CSA-003CP	US	CRYOSURGERY SYSTEM	9144449	Granted
CSA-003CPC1	US	CRYOSURGERY SYSTEM	9820797	Granted
CSA-003JP	Japan	CRYOSURGERY SYSTEM	6254954	Granted
CSA-006AU	Australia	CRYOSPRAY CATHETERS	2013381016	Granted
CSA-006CA	Canada	CRYOSPRAY CATHETERS	2904190	Granted
CSA-006EP	European Patent Convention	CRYOSPRAY CATHETERS	2964124	Granted
CSA-006DE	Germany	CRYOSPRAY CATHETERS	2964124	Granted
CSA-006JP	Japan	CRYOSPRAY CATHETERS	6652838	Granted
CSA-006FR	France	CRYOSPRAY CATHETERS	2964124	Granted
CSA-006GB	United Kingdom	CRYOSPRAY CATHETERS	2964124	Granted
CSA-006IE	Ireland	CRYOSPRAY CATHETERS	2964124	Granted
CSA-006NL	Netherlands	CRYOSPRAY CATHETERS	2964124	Granted
CSA-021AU	Australia	CATHETER EXTENSION CONTROL	2017267663	Granted
CSA-021JP	Japan	CATHETER EXTENSION CONTROL	6682654	Granted
CSA-021JPD1	Japan	CATHETER EXTENSION CONTROL	7038159	Granted
CSA-026AU	Australia	VISION PRESERVATION SYSTEM FOR MEDICAL DEVICES	2017258072	Granted
CSA-026JP	Japan	VISION PRESERVATION SYSTEM FOR MEDICAL DEVICES	6820121	Granted
CSA-027AU	Australia	SYSTEMS AND METHODS TO ENSURE GAS EGRESS DURING CRYOTHERAPY	2018230367	Granted
CSA-027JP	Japan	SYSTEMS AND METHODS TO ENSURE GAS EGRESS DURING CRYOTHERAPY	6826210	Granted
CSA-032AU	Australia	CATHETER SLEEVE FOR CRYOTHERAPY SYSTEM	2018230369	Granted
CSA-032JP	Japan	CATHETER SLEEVE FOR CRYOTHERAPY SYSTEM	6887515	Granted
CSA-047JP	Japan	SYSTEMS AND METHODS TO ENHANCE RADIAL SPRAY FROM A CATHETER	6984109	Granted

SCHEDULE 2-B TO GRANT OF SECURITY INTEREST
PATENT APPLICATIONS

Atty Docket	Jurisdiction	Title	Serial	Status
CSA-001C1	US	METHOD AND SYSTEM FOR CONSISTENT, REPEATABLE, AND SAFE CRYOSPRAY TREATMENT OF AIRWAY TISSUE	16/663773	Pending
CSA-001CA	Canada	METHOD AND SYSTEM FOR CONSISTENT, REPEATABLE, AND SAFE CRYOSPRAY TREATMENT OF AIRWAY TISSUE	2951050	Pending
CSA-001EPD1	European Patent Convention	METHOD AND SYSTEM FOR CONSISTENT, REPEATABLE, AND SAFE CRYOSPRAY TREATMENT OF AIRWAY TISSUE	20216715.1	Pending
CSA-001JPD2	Japan	METHOD AND SYSTEM FOR CONSISTENT, REPEATABLE, AND SAFE CRYOSPRAY TREATMENT OF AIRWAY TISSUE	2019-131087	Allowed
CSA-001JPD4	Japan	METHOD AND SYSTEM FOR CONSISTENT, REPEATABLE, AND SAFE CRYOSPRAY TREATMENT OF AIRWAY TISSUE	2022-125450	Pending
CSA-001AUD2	Australia	METHOD AND SYSTEM FOR CONSISTENT, REPEATABLE, AND SAFE CRYOSPRAY TREATMENT OF AIRWAY TISSUE	2022231776	Pending
CSA-002C2	US	METHOD AND SYSTEM FOR CONSISTENT, REPEATABLE, AND SAFE CRYOSPRAY TREATMENT OF AIRWAY TISSUE	11446075	Granted
CSA-002C3	US	METHOD AND SYSTEM FOR CONSISTENT, REPEATABLE, AND SAFE CRYOSPRAY TREATMENT OF AIRWAY TISSUE	17/946773	Pending
CSA-003CPC2	US	CRYOSURGERY SYSTEM	10869709	Granted

CSA-003EP	European Patent Convention	CRYOSURGERY SYSTEM	13754251.0	Pending
CSA-006CP	US	CRYOSPRAY CATHETERS	14012320	Pending
CSA-006EPD1	European Patent Convention	CRYOSPRAY CATHETERS	21201198.5	Pending
CSA-007	US		11019986	Granted
CSA-020	US	ROTATIONAL CRYOGEN DELIVERY DEVICE	15668004	Pending
CSA-021	US	CATHETER EXTENSION CONTROL	15158698	Pending
CSA-021CA	Canada	CATHETER EXTENSION CONTROL	3014793	Pending
CSA-022	US	METHOD & APPARATUS TO PERFORM CRYOTHERAPY	15659199	Abandoned
CSA-026	US	ENDOSCOPE VISION PRESERVATION SYSTEM FOR CRYOTHERAPY DEVICES	11202559	Granted
CSA-026EP	European Patent Convention	VISION PRESERVATION SYSTEM FOR MEDICAL DEVICES	17722312.0	Allowed
CSA-027	US	APPARATUS TO DETERMINE GAS EGRESS / VENTILATOR CONNECTION PRIOR TO CRYOTHERAPY	11207117	Granted
CSA-027CA	Canada	SYSTEMS AND METHODS TO ENSURE GAS EGRESS DURING CRYOTHERAPY	3054434	Pending
CSA-027EP	European Patent Convention	SYSTEMS AND METHODS TO ENSURE GAS EGRESS DURING CRYOTHERAPY	18711792.4	Pending
CSA-028	US	METHOD & APPARATUS FOR PERFORMING CRYOTHERAPY OF DISTAL LUNG LESIONS	10792085	Granted
CSA-030	US	APPARATUS TO DETERMINE GAS EGRESS / VENTILATOR CONNECTION PRIOR TO CRYOTHERAPY	15814900	Abandoned
CSA-032	US	CATHETER INTERFACE TO BLOCK AND REMOVE	15914510	Abandoned

		FLUID FROM SCOPE WORKING CHANNEL		
CSA-032EP	European Patent Convention	CATHETER SLEEVE FOR CRYOTHERAPY SYSTEM	18712387.2	Pending
CSA-033	US	SYSTEMS AND METHODS TO PREVENT OR SIGNIFICANTLY INHIBIT GAS PROGRESSION DURING SPRAY CRYOTHERAPY	15874414	Abandoned
CSA-041	US	EMBEDDED SYSTEM FOR THREE-DIMENTIONAL MAPPING AND CONTROL IN SOLIDS, LIQUIDS, GASES, GELS AND COMPOSITES	11389244	Granted
CSA-041EP	European Patent Convention	DEVICES AND METHODS FOR ENERGY TRANSFER MAPPING	19759077.1	Pending
CSA-046	US	DEVICES AND METHODS FOR GUIDING INSTRUMENTS	16279555	Pending
CSA-047	US	SYSTEMS AND METHODS TO ENHANCE RADIAL SPRAY FROM A CATHETER	11364065	Granted
CSA-047EP	European Patent Convention	SYSTEMS AND METHODS TO ENHANCE RADIAL SPRAY FROM A CATHETER	18800353.7	Pending
CSA-048PR	US	ROBOTIC SYSTEM FOR DELIVERING METERED ENERGY TO AN AIRWAY	63/412606	Pending