TRADEMARK ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

ETAS ID: TM571855

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT OF THE ENTIRE INTEREST AND THE GOODWILL

CONVEYING PARTY DATA

Name	Formerly	Execution Date	Entity Type
Teleflex Medical Devices S.á.r.l.		12/30/2019	PRIVATE LIMITED LIABILITY COMPANY: LUXEMBOURG

RECEIVING PARTY DATA

Name:	Teleflex Life Sciences Limited
Street Address:	171, Old Bakery Street
City:	Valletta
State/Country:	MALTA
Postal Code:	VLT 1455
Entity Type:	Limited Liability Company: MALTA

PROPERTY NUMBERS Total: 1

Property Type	Number	Word Mark
Registration Number:	3858113	PIGGYBACK

CORRESPONDENCE DATA

Fax Number: 6123393061

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: 612-373-6900
Email: tmg@slwip.com
Correspondent Name: Schwegman Lundberg & Woessner P.A.
Address Line 1: P.O. Box 2938
Address Line 4: Minneapolis, MINNESOTA 55402

CH $40.00 3858113

NAME OF SUBMITTER:	Jennifer Tintor
SIGNATURE:	/Jennifer Tintor/
DATE SIGNED:	04/14/2020

Total Attachments: 60
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RECORDABLE ASSIGNMENT

WHEREAS, Teleflex Medical Devices S.à r.l., a private limited liability company (*société à responsabilité limitée*) incorporated under the laws of the Grand-Duchy of Luxembourg, having its registered office at 26, boulevard de Kockelscheuer, L-1821 Luxembourg, Grand-Duchy of Luxembourg, registered with the Luxembourg Register of Commerce and Companies under No. B185177 ("**ASSIGNOR**"), desires to transfer, convey, assign, and deliver all of its right, title, and interest in and to the Intellectual Property (as defined below), including notably the rights to file applications and obtain industrial property rights in all jurisdictions worldwide; and

WHEREAS, Teleflex Life Sciences Limited, a limited liability company duly incorporated and validly existing under the laws of Malta, having its registered office at 171, Old Bakery Street, Valletta VLT 1455, Malta, registered with the Malta Business Registry under No. C94305, ("**ASSIGNEE**"), desires to acquire all of ASSIGNOR's right, title, and interest in and to the Intellectual Property (as defined below).

NOW, THEREFORE, for good and valuable consideration, the receipt and adequacy of which are hereby acknowledged by ASSIGNOR, ASSIGNOR hereby further acknowledges that it has assigned and transferred, and by these presents does hereby assign and transfer as of the Transfer Date (as defined below), unto ASSIGNEE, its successors, legal representatives, and assigns, all of ASSIGNOR's right, title, and interest throughout the world in and to the Intellectual Property (as defined below).

"**Intellectual Property**" means all rights (including rights to enforce) with respect to the following in any jurisdictions throughout the world: (i) patents, patent applications and invention disclosures (including any divisionals, continuations, continuations-in-part, continuing prosecution applications, reexaminations, substitutions, extensions, renewals, post-grant proceedings, utility models, certificates of invention or reissues thereof or therefore), including those set out at Schedule 1 and Schedule 2 of this Recordable Assignment; (ii) trademarks (including any related rights, including reputation, in or to the trade mark), service marks, trade dress, trade names, corporate names, logos, internet domain names and slogans (and all translations, adaptations, derivations and combinations of the foregoing), including those set out at Schedule 3 and Schedule 4 of this Recordable Assignment; (iii) copyrights and copyrightable works; (iv) distribution networks, customer lists, ideas, trade secrets, confidential information, know-how, inventions, proprietary techniques, business models, processes, methods, applications, technical information, disclosures, design rights, unpublished research and development information, manufacturing and operating information, technical data, process characterization data, all documentation relating thereto in any form (including drawings, plans, bills of material and sources of information); (v) rights in software (including all source code, object code, data, databases and collections of data); (vi) registrations or applications or rights to apply for any of the foregoing clauses (i) through (v); and (vii) all other intellectual property (including any other additional applicable marketing and trade intangibles assets), in each of clauses (i) through (vii) in any part of the world and whether or not registered or registerable and to the fullest extent thereof and for the full period therefor and all extensions and renewals thereof, and in each of clauses (i) through (vii) together with any and all income, royalties, damages, and payments due or payable (including damages and payments for past or future infringements or misappropriations thereof) with respect thereto, the right to sue and recover for past infringements or misappropriations

thereof, any and all corresponding rights and interests, that, now or hereafter, may be secured or due throughout the world.

"**Transfer Date**" means December 30, 2019.

As of the Transfer Date, ASSIGNOR does hereby assign, transfer, and convey to ASSIGNEE, its successors, legal representatives, and assigns all of ASSIGNOR'S claims for damages and remedies arising out of any violation of the rights assigned hereby that may have accrued prior to the date of assignment to ASSIGNEE, or may accrue hereafter, including ASSIGNOR'S right to sue for, collect, and retain damages for past infringements of any of the Intellectual Property assigned hereby.

ASSIGNOR hereby covenants and agrees that it will communicate to ASSIGNEE, its successors, legal representatives, and assigns any facts known to ASSIGNOR respecting the Intellectual Property immediately upon becoming aware of those facts, and that it will testify in any legal proceeding involving any of the Intellectual Property, will sign all lawful papers, execute all disclaimers and all divisional, continuing, reissue and foreign applications, make all rightful oaths, and will generally take or cause to be taken all such other actions necessary or desirable for ASSIGNEE, its successors, legal representatives, and assigns to obtain and enforce the benefits of the present Recordable Assignment in all countries.

This Recordable Assignment and any claim, controversy, dispute, or cause of action (whether in contract, tort, or otherwise) based upon, arising out of, or relating to this Recordable Assignment and the transactions contemplated hereby shall be governed by, and construed in accordance with, the laws of the Grand-Duchy of Luxembourg, and submitted to the competent courts of Luxembourg-City, without giving effect to any choice or conflict of law provision or rule (whether of Luxembourg or any other jurisdiction).

[*Signature page to follow*]

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this 30th day of December, 2019.

TELEFLEX MEDICAL DEVICES S.À R.L.

By: _____
Name: Jacob Elguicze
Title: Category A Manager

COMMONWEALTH OF PENNSYLVANIA }
} ss.
COUNTY OF MONTGOMERY }

On December 30, 2019, before me, Pamela L. Carr, notary public, personally appeared Jacob Elguicze, who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument, and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the entity on behalf of which he acted executed the instrument.

WITNESS my hand and official seal.

[SEAL]

Commonwealth of Pennsylvania - Notary Seal
PAMELA L CARR - Notary Public
Montgomery County
My Commission Expires Apr 8, 2022
Commission Number 1023866

_____
Notary Signature

Schedule 1
Vascular Solutions Patent Portfolio

Patents							
Attorney Ref.	**Status**	**Title**	**Country**	**Application No.**	**Filing Date**	**Patent No.**	**Issue Date**
VSI-0984-US01	Abandoned	ULTRASONIC TRANSMISSION APPARATUS	U.S.	07/842,529	2/27/1992	5269297	12/14/1993
VSI-0985-US01	Expired	IN VIVO ULTRASONIC SYSTEM WITH ANGIOPLASTY AND ULTRASONIC CONTRAST IMAGING	U.S.	07/449,465	12/12/1989	5163421	11/17/1992
VSI-0986-US01	Abandoned	ULTRASOUND TRANSMISSION APPARATUS AND METHOD OF USING SAME	U.S.	08/858,247	5/19/1997	5971949	10/26/1999
VSI-0987-US01	Abandoned	ULTRASOUND TRANSMISSION APPARATUS HAVING A TIP	U.S.	09/321,268	5/27/1999	6241703	6/5/2001
VSI-0988-US01	Abandoned	VASCULAR SEALING DEVICE	U.S.	08/067,213	5/25/1993	5383896	1/24/1995
VSI-0988-US02	Abandoned	VASCULAR SEALING DEVICE	U.S.	08/303,088	9/8/1994		
VSI-0988-US03	Expired	VASCULAR SEALING DEVICE	U.S.	08/832,600	3/31/1997	5957952	9/28/1999
VSI-0989-US01	Abandoned	VASCULAR SEALING APPARATUS	U.S.	08/549,430	10/27/1995		
VSI-0989-US02	Abandoned	VASCULAR SEALING APPARATUS	U.S.	08/877,255	6/17/1997	6017359	1/25/2000
VSI-0989-US03	Abandoned	Vascular sealing apparatus	U.S.	09/491,108	1/25/2000	6296658	10/2/2001
VSI-0990-US01	Abandoned	VASCULAR SEALING APPARATUS AND METHOD	U.S.	08/549,332	10/27/1995	5626601	5/6/1997
VSI-0990-US02	Expired	VASCULAR SEALING APPARATUS AND METHOD	U.S.	08/850,477	5/5/1997	5868778	2/9/1999
VSI-0991-US01	Expired	THROMBIN AND COLLAGEN PROCOAGULANT AND PROCESS FOR MAKING THE SAME	U.S.	09/031,847	2/27/1998	5951583	9/14/1999

Patents							
Attorney Ref.	**Status**	**Title**	**Country**	**Application No.**	**Filing Date**	**Patent No.**	**Issue Date**
VSI-0991-US02	Abandoned	THROMBIN AND COLLAGEN PROCOAGULANT AND PROCESS FOR MAKING THE SAME	U.S.	09/345,889	7/1/1999		
VSI-0992-US01	Abandoned	Shaped Introducer For Vascular Access	U.S.	11/942,635	11/19/2007		
VSI-0992-USPR	Expired	Shaped introducer for vascular intervention	U.S.	60/860,678	11/21/2006		
VSI-0993-US01	Abandoned	Laser fiber for endovenous therapy having a shielded distal tip	U.S.	10/879,701	6/29/2004		
VSI-0993-US02	Abandoned	Laser fiber for endovenous therapy having a shielded distal tip	U.S.	11/648,086	12/29/2006		
VSI-0994-EP01	Abandoned	FLOW MONITOR AND VASCULAR ACCESS SYSTEM WITH CONTINUOUSLY VARIABLE FREQUENCY CONTROL	EP	93109712.5	6/17/1993	574923	10/9/2002
VSI-0994-US01	Expired	FLOW MONITOR AND VASCULAR ACCESS SYSTEM WITH CONTINUOUSLY VARIABLE FREQUENCY CONTROL	U.S.	07/901,466	6/19/1992	5259386	11/9/1993
VSI-0994-US02	Expired	FLOW MONITOR AND VASCULAR ACCESS SYSTEM WITH CONTINUOUSLY VARIABLE FREQUENCY CONTROL	U.S.	08/142,151	10/25/1993	5363852	11/15/1994
VSI-0995-CA01	Abandoned	APPARATUS FOR THE CANNULATION OF BLOOD VESSELS	Canada	2085912	12/21/1992		
VSI-0995-EP01	Abandoned	APPARATUS FOR THE CANNULATION OF BLOOD VESSELS	EP	92121687.5	12/21/1992	548872	6/25/1997

Patents							
Attorney Ref.	Status	Title	Country	Application No.	Filing Date	Patent No.	Issue Date
VSI-0995-US01	Expired	APPARATUS FOR THE CANNULATION OF BLOOD VESSELS	U.S.	07/813,123	12/23/1991	5259385	11/9/1993
VSI-0996-US01	Expired	SYRINGE WITH ULTRASOUND EMITTING TRANSDUCER FOR FLOW-DIRECTED CANNULATION OF ARTERIES AND VEINS	U.S.	08/003,203	1/12/1993	5311871	5/17/1994
VSI-0997-US01	Expired	APPARATUS FOR USE IN CANNULATION OF BLOOD VESSELS	U.S.	07/296,272	1/11/1989	4887606	12/19/1989
VSI-0998-CA01	Abandoned	COAXIAL CABLE VASCULAR ACCESS SYSTEM	Canada	2168781	8/4/1994		
VSI-0998-EP01	Abandoned	COAXIAL CABLE VASCULAR ACCESS SYSTEM FOR USE IN VARIOUS NEEDLES	EP	94924111.1	8/4/1994	712294	1/2/2003
VSI-0998-US01	Expired	COAXIAL CABLE VASCULAR ACCESS SYSTEM FOR USE IN VARIOUS NEEDLES	U.S.	08/102,607	8/5/1993	5484416	1/16/1996
VSI-0999-CA01	Abandoned	GUIDED HYPODERMIC CANNULA	Canada	2587604	11/16/2005		
VSI-0999-US01	Abandoned	GUIDED HYPODERMIC CANNULA	U.S.	11/084,491	3/18/2005		
VSI-0999-USPR	Expired	NEEDLE AND PROBE ASSEMBLY	U.S.	60/628,809	11/17/2004		
VSI-1000-US01	Issued	GUIDE WIRE LOADING METHOD AND APPARATUS	U.S.	12/218,031	7/9/2008	8206321	6/26/2012
VSI-1001-EP01	Abandoned	GUIDE WIRE LOADING METHOD AND APPARATUS WITH TOWEL ATTACHMENT MECHANISM	EP	9795106.5	7/8/2009		
VSI-1001-US01	Issued	GUIDE WIRE LOADING METHOD AND APPARATUS WITH TOWEL ATTACHMENT MECHANISM	U.S.	12/498,965	7/7/2009	8231550	7/31/2012

Patents							
Attorney Ref.	Status	Title	Country	Application No.	Filing Date	Patent No.	Issue Date
VSI-1001-WO01	Expired	GUIDE WIRE LOADING METHOD AND APPARATUS WITH TOWEL ATTACHMENT MECHANISM	PCT	PCT/US2009/049912	7/8/2009		
VSI-1002-US01	Issued	GUIDE WIRE LOADING METHOD AND APPARATUS WITH TOWEL ATTACHMENT MECHANISM AND RETAINING MEMBER	U.S.	12/831,630	7/7/2010	8366638	2/5/2013
VSI-1003-US01	Issued	HAND HELD VEIN REMOVAL DEVICE	U.S.	13/410,440	3/2/2012	8834500	9/16/2014
VSI-1003-USPR	Expired	HAND HELD VEIN REMOVAL DEVICE	U.S.	61/449,334	3/4/2011		
VSI-1004-US01	Issued	VASCULAR ACCESS CLOSURE SYSTEM	U.S.	10/452,826	6/2/2003	7488340	2/10/2009
VSI-1006-US01	Issued	HEMOSTATIC CLIP	U.S.	12/483,698	6/12/2009	8246585	8/21/2012
VSI-1006-USPR	Expired	HEMOSTATIC CLIP	U.S.	61/073,622	6/18/2008		
VSI-1007-CA01	Issued	Elongated Expandable Member for Occluding Varicose Veins	Canada	2817242	11/1/2012	2817242	5/1/2018
VSI-1007-DEEP	Issued	Elongated Expandable Member for Occluding Varicose Veins	Germany	12801657.3	11/1/2012	2673014	5/4/2016
VSI-1007-EP01	Issued	Elongated Expandable Member for Occluding Varicose Veins	EP	12801657.3	11/1/2012	2673014	5/4/2016
VSI-1007-GBEP	Issued	Elongated Expandable Member for Occluding Varicose Veins	United Kingdom	12801657.3	11/1/2012	2673014	5/4/2016
VSI-1007-IEEP	Issued	Elongated Expandable Member for Occluding Varicose Veins	Ireland	12801657.3	11/1/2012	2673014	5/4/2016
VSI-1007-NOEP	Issued	Elongated Expandable Member for Occluding Varicose Veins	Norway	12801657.3	11/1/2012	2673014	5/4/2016
VSI-1007-US01	Issued	Elongated Expandable Member for Occluding Varicose Veins	U.S.	13/310,503	12/2/2011	8758427	6/24/2014
VSI-1007-US02	Issued	Elongated Expandable Member for Occluding Varicose Veins	U.S.	14/298,066	6/6/2014	9351736	5/31/2016

Patents							
Attorney Ref.	Status	Title	Country	Application No.	Filing Date	Patent No.	Issue Date
VSI-1007-WO01	Expired	Elongated Expandable Member for Occluding Varicose Veins	PCT	PCT/US2012/063101	11/1/2012		
VSI-1008-US01	Issued	SMALL DIAMETER INTRAVASCULAR CATHETER WITH SCREW TIP AND LIMITED TORSIONAL DISPLACEMENT	U.S.	11/585,371	10/24/2006	7981091	7/19/2011
VSI-1010-US01	Issued	COAXIAL GUIDE CATHETER FOR INTERVENTIONAL CARDIOLOGY PROCEDURES	U.S.	11/416,629	5/3/2006	8048032	11/1/2011
VSI-1010-US02	Issued	COAXIAL GUIDE CATHETER FOR INTERVENTIONAL CARDIOLOGY PROCEDURES	U.S.	12/824,734	6/28/2010	8142413	3/27/2012
VSI-1010-US03	Issued	COAXIAL GUIDE CATHETER FOR INTERVENTIONAL CARDIOLOGY PROCEDURES	U.S.	13/359,059	1/26/2012	8292850	10/23/2012
VSI-1010-USRE1	Issued	COAXIAL GUIDE CATHETER FOR INTERVENTIONAL CARDIOLOGY PROCEDURES	U.S.	14/070,161	11/1/2013	RE45380	2/17/2015
VSI-1010-USRE10	Pending	COAXIAL GUIDE CATHETER FOR INTERVENTIONAL CARDIOLOGY PROCEDURES	U.S.	16/220,996	12/14/2018		
VSI-1010-USRE2	Issued	COAXIAL GUIDE CATHETER FOR INTERVENTIONAL CARDIOLOGY PROCEDURES	U.S.	14/195,385	3/3/2014	RE45760	10/20/2015
VSI-1010-USRE3	Issued	COAXIAL GUIDE CATHETER FOR INTERVENTIONAL CARDIOLOGY PROCEDURES	U.S.	14/195,413	3/3/2014	RE45776	10/27/2015
VSI-1010-USRE4	Issued	COAXIAL GUIDE CATHETER FOR INTERVENTIONAL CARDIOLOGY PROCEDURES	U.S.	14/195,435	3/3/2014	RE46116	8/23/2016
VSI-1010-USRE5	Issued	COAXIAL GUIDE CATHETER FOR INTERVENTIONAL CARDIOLOGY PROCEDURES	U.S.	14/984,273	12/30/2015	RE47379	5/7/2019

Patents							
Attorney Ref.	Status	Title	Country	Application No.	Filing Date	Patent No.	Issue Date
VSI-1010-USRE6	Pending	COAXIAL GUIDE CATHETER FOR INTERVENTIONAL CARDIOLOGY PROCEDURES	U.S.	16/184,706	11/8/2018		
VSI-1010-USRE7	Pending	COAXIAL GUIDE CATHETER FOR INTERVENTIONAL CARDIOLOGY PROCEDURES	U.S.	16/220,925	12/14/2018		
VSI-1010-USRE8	Pending	COAXIAL GUIDE CATHETER FOR INTERVENTIONAL CARDIOLOGY PROCEDURES	U.S.	16/220,951	12/14/2018		
VSI-1010-USRE9	Pending	COAXIAL GUIDE CATHETER FOR INTERVENTIONAL CARDIOLOGY PROCEDURES	U.S.	16/220,975	12/14/2018		
VSI-1012-US01	Abandoned	ABDOMINAL TISSUE SUPPORT FOR FEMORAL PUNCTURE PROCEDURES	U.S.	11/029,908	1/5/2005	7455649	11/25/2008
VSI-1013-US01	Issued	METAL VASCULAR APERTURE CLOSURE DEVICE	U.S.	12/501,998	7/13/2009	8192456	6/5/2012
VSI-1013-US02	Issued	METAL VASCULAR APERTURE CLOSURE DEVICE	U.S.	12/502,034	7/13/2009	8252022	8/28/2012
VSI-1014-DEEP	Abandoned	SURGICAL SNARE APPARATUS	Germany	1916539.8	3/9/2001	1263336	2/18/2004
VSI-1014-EP01	Abandoned	SURGICAL SNARE APPARATUS	EP	1916539.8	3/9/2001	1263336	2/18/2004
VSI-1014-ESEP	Abandoned	SURGICAL SNARE APPARATUS	Spain	1916539.8	3/9/2001	1263336	2/18/2004
VSI-1014-FREP	Abandoned	SURGICAL SNARE APPARATUS	France	1916539.8	3/9/2001	1263336	2/18/2004
VSI-1014-GBEP	Abandoned	SURGICAL SNARE APPARATUS	United Kingdom	1916539.8	3/9/2001	1263336	2/18/2004
VSI-1014-IEEP	Abandoned	SURGICAL SNARE APPARATUS	Ireland	1916539.8	3/9/2001	1263336	2/18/2004
VSI-1014-ITEP	Abandoned	SURGICAL SNARE APPARATUS	Italy	1916539.8	3/9/2001	1263336	2/18/2004

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Attorney Ref.	Status	Title	Country	Application No.	Filing Date	Patent No.	Issue Date
VSI-1014-US01	Issued	SMALL DIAMETER SNARE	U.S.	09/803,308	3/9/2001	6554842	4/29/2003
VSI-1014-USPR	Expired	SMALL DIAMETER SNARE	U.S.	60/188,390	3/10/2000		
VSI-1014-WO01	Expired	SURGICAL SNARE APPARATUS	PCT	PCT/US01/07680	3/9/2001		
VSI-1015-US01	Issued	CONVERTIBLE GUIDEWIRE SYSTEM AND METHODS	U.S.	12/204,583	9/4/2008	8083690	12/27/2011
VSI-1016-IT01	Issued	Two-lumen suction catheter for distal protection in a percutaneous intervention	Italy	MI2002A002666	12/17/2002	102002901072607	10/18/2007
VSI-1016-US01	Issued	TWO-LUMEN CATHETER FOR DISTAL PROTECTION IN PERCUTANEOUS CORONARY AND PERIPHERICAL INTERVENTION	U.S.	10/462,079	6/13/2003	7025751	4/11/2006
VSI-1017-US01	Issued	GUIDEWIRE AND CATHETER MANAGEMENT DEVICE	U.S.	12/498,985	7/7/2009	8523824	9/3/2013
VSI-1018-US01	Expired	MEDICAL DEVICE PACKAGE	U.S.	29/182,858	6/2/2003	D489973	5/18/2004
VSI-1019-US01	Issued	GUIDEWIRE TIPPED LASER FIBER	U.S.	11/860,880	9/25/2007	8298215	10/30/2012
VSI-1020-EP01	Abandoned	DEVICES AND METHODS FOR CROSSING A CHRONIC TOTAL OCCLUSION	EP	4781984.2	8/19/2004		
VSI-1020-EP02	Abandoned	DEVICES AND METHODS FOR CROSSING A CHRONIC TOTAL OCCLUSION	EP	7023966	8/19/2004		
VSI-1020-JP01	Abandoned	DEVICES AND METHODS FOR CROSSING A CHRONIC TOTAL OCCLUSION	Japan	2006-525359	8/19/2004	4680907	
VSI-1020-US01	Issued	DEVICES AND METHODS FOR CROSSING A CHRONIC TOTAL OCCLUSION	U.S.	10/653,879	9/2/2003	7763012	7/27/2010

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Attorney Ref.	Status	Title	Country	Application No.	Filing Date	Patent No.	Issue Date
VSI-1020-WO01	Expired	DEVICES AND METHODS FOR CROSSING A CHRONIC TOTAL OCCLUSION	PCT	PCT/US04/27405	8/19/2004		
VSI-1021-US01	Issued	VASCULAR DILATOR SYSTEMS, KITS, AND METHODS	U.S.	13/784,073	3/4/2013	9078991	7/14/2015
VSI-1021-US02	Abandoned	VASCULAR DILATOR SYSTEMS, KITS, AND METHODS	U.S.	14/735,974	6/10/2015		
VSI-1022-US01	Issued	SYSTEM AND METHOD FOR FREEZE-DRYING AND PACKAGING	U.S.	14/553,722	11/25/2014	9561893	2/7/2017
VSI-1022-US02	Issued	SYSTEM AND METHOD FOR FREEZE-DRYING AND PACKAGING	U.S.	15/399,643	1/5/2017	10377520	8/13/2019
VSI-1022-US03	Published	SYSTEM AND METHOD FOR FREEZE-DRYING AND PACKAGING	U.S.	16/386,026	4/16/2019		
VSI-1022-USPR	Expired	SYSTEM AND METHOD FOR FREEZE-DRYING AND PACKAGING	U.S.	61/912,281	12/5/2013		
VSI-1023-US01	Abandoned	ELONGATE EXPANDABLE MEMBER FOR OCCLUDING VASCULAR VESSEL	U.S.	14/630,291	2/24/2015		
VSI-1023-USPR	Expired	ELONGATE EXPANDABLE MEMBER FOR OCCLUDING VASCULAR VESSEL	U.S.	61/945,699	2/27/2014		
VSI-1024-US01	Published	GUIDEWIRE CAPTURE	U.S.	14/709,531	5/12/2015		
VSI-1024-USPR	Expired	GUIDEWIRE CAPTURE	U.S.	62/048,734	9/10/2014		
VSI-1025-US01	Issued	GUIDEWIRES AND METHODS FOR PERCUTANEOUS OCCLUSION CROSSING	U.S.	14/697,819	4/28/2015	10391282	8/27/2019
VSI-1025-USPR	Expired	GUIDEWIRES AND METHODS FOR PERCUTANEOUS OCCLUSION CROSSING	U.S.	62/022,024	7/8/2014		
VSI-1026-CN01	Issued	PERFUSION CATHETERS AND RELATED METHODS	China	201580060554.3	9/10/2015	ZL201580060554.3	6/28/2019

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VSI-1026-CN02	Published	PERFUSION CATHETERS AND RELATED METHODS	China	201710468567.5	9/10/2015		
VSI-1026-DEEP	Issued	PERFUSION CATHETERS AND RELATED METHODS	Germany	3125781	9/10/2015	3125781	11/7/2018
VSI-1026-DEEP2	Unfiled	PERFUSION CATHETERS AND RELATED METHODS	Germany	3400886	9/10/2015	3400886	
VSI-1026-EP01	Issued	PERFUSION CATHETERS AND RELATED METHODS	EP	15770712.6	9/10/2015	3125781	11/7/2018
VSI-1026-EP02	Published	PERFUSION CATHETERS AND RELATED METHODS	EP	18177601.4	9/10/2015		
VSI-1026-ESEP	Issued	PERFUSION CATHETERS AND RELATED METHODS	Spain	3125781	9/10/2015	3125781	11/7/2018
VSI-1026-FREP	Issued	PERFUSION CATHETERS AND RELATED METHODS	France	3125781	9/10/2015	3125781	11/7/2018
VSI-1026-FREP2	Unfiled	PERFUSION CATHETERS AND RELATED METHODS	France	3400886	9/10/2015	3400886	
VSI-1026-GBEP	Issued	PERFUSION CATHETERS AND RELATED METHODS	United Kingdom	3125781	9/10/2015	3125781	11/7/2018
VSI-1026-GBEP2	Unfiled	PERFUSION CATHETERS AND RELATED METHODS	United Kingdom	3400886	9/10/2015	3400886	
VSI-1026-HKCN	Published	PERFUSION CATHETERS AND RELATED METHODS	Hong Kong	17109379.3	9/10/2015		
VSI-1026-HKCN2	Published	PERFUSION CATHETERS AND RELATED METHODS	Hong Kong	18105018.7	9/10/2015		
VSI-1026-IEEP2	Unfiled	PERFUSION CATHETERS AND RELATED METHODS	Ireland	3400886	9/10/2015	3400886	
VSI-1026-ITEP	Issued	PERFUSION CATHETERS AND RELATED METHODS	Italy	3125781	9/10/2015	3125781	11/7/2018
VSI-1026-JP01	Issued	PERFUSION CATHETERS AND RELATED METHODS	Japan	2016-515958	9/10/2015	6097447	2/24/2017
VSI-1026-JP02	Issued	PERFUSION CATHETERS AND RELATED METHODS	Japan	2017-28336	9/10/2015	6326517	4/20/2018

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Attorney Ref.	**Status**	**Title**	**Country**	**Application No.**	**Filing Date**	**Patent No.**	**Issue Date**
VSI-1026-NLEP2	Unfiled	PERFUSION CATHETERS AND RELATED METHODS	Netherlands	3400886	9/10/2015	3400886	
VSI-1026-US01	Issued	PERFUSION CATHETERS AND RELATED METHODS	U.S.	14/850,095	9/10/2015	10159821	12/25/2018
VSI-1026-US02	Issued	PERFUSION CATHETERS AND RELATED METHODS	U.S.	15/296,183	10/18/2016	9968763	5/15/2018
VSI-1026-US03	Published	PERFUSION CATHETERS AND RELATED METHODS	U.S.	16/191,833	11/15/2018		
VSI-1026-USPR	Expired	PERFUSION CATHETER	U.S.	62/048,726	9/10/2014		
VSI-1026-WO01	Expired	PERFUSION CATHETERS AND RELATED METHODS	PCT	PCT/US15/49356	9/10/2015		
VSI-1027-USPR	Expired	PERFUSION CATHETERS AND RELATED METHODS	U.S.	62/078,240	11/11/2014		
VSI-1028-US01	Abandoned	VASCULAR INTRODUCER INCLUDING EXPANDABLE PASSAGE MEMBER	U.S.	13/191,889	7/27/2011		
VSI-1028-US02	Abandoned	VASCULAR INTRODUCER INCLUDING EXPANDABLE PASSAGE MEMBER	U.S.	14/734,967	6/9/2015		
VSI-1029-US01	Issued	DRAINAGE OR FEEDING CATHETER ASSEMBLY	U.S.	14/206,940	3/12/2014	9522253	12/20/2016
VSI-1029-USPR	Expired	DRAINAGE OR FEEDING CATHETER ASSEMBLY	U.S.	61/780,832	3/13/2013		
VSI-1030-CA01	Issued	CAPTURE ASSEMBLY AND METHOD	Canada	2955841	9/10/2015	2955841	6/27/2017
VSI-1030-DEEP	Issued	CAPTURE ASSEMBLY AND METHOD	Germany	3125789	9/10/2015	602015004478.9	8/30/2017
VSI-1030-EP01	Issued	CAPTURE ASSEMBLY AND METHOD	EP	15767400.3	9/10/2015	3125789	8/30/2017
VSI-1030-ESEP	Issued	CAPTURE ASSEMBLY AND METHOD	Spain	15767400.3	9/10/2015	3125789	8/30/2017

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VSI-1030-FREP	Issued	CAPTURE ASSEMBLY AND METHOD	France	15767400.3	9/10/2015	3125789	8/30/2017
VSI-1030-GBEP	Issued	CAPTURE ASSEMBLY AND METHOD	United Kingdom	15767400.3	9/10/2015	3125789	8/30/2017
VSI-1030-ITEP	Issued	CAPTURE ASSEMBLY AND METHOD	Italy	3125789	9/10/2015	502017000132140	8/30/2017
VSI-1030-US01	Issued	CAPTURE ASSEMBLY AND METHOD	U.S.	14/849,774	9/10/2015	9351747	5/31/2016
VSI-1030-US02	Issued	CAPTURE ASSEMBLY AND METHOD	U.S.	15/148,038	5/6/2016	10390849	8/27/2019
VSI-1030-USPR	Expired	THROMBECTOMY ASSEMBLY AND METHOD	U.S.	62/048,736	9/10/2014		
VSI-1030-WO01	Expired	CAPTURE ASSEMBLY AND METHOD	PCT	PCT/US15/49299	9/10/2015		
VSI-1031-USPR	Abandoned	GUIDEWIRE CATHETER	U.S.	62/048,741	9/10/2014		
VSI-1032-US01	Issued	CATHETER	U.S.	14/673,966	3/31/2015	9636477	5/2/2017
VSI-1032-US02	Published	CATHETER	U.S.	15/441,352	2/24/2017		
VSI-1032-USPR	Expired	CATHETER	U.S.	62/061,781	10/9/2014		
VSI-1033-EP01	Abandoned	GUIDE WIRE CONTROL CATHETERS FOR CROSSING OCCLUSIONS AND RELATED METHODS OF USE	EP	3783618.6	11/18/2003		
VSI-1033-JP01	Abandoned	GUIDE WIRE CONTROL CATHETERS FOR CROSSING OCCLUSIONS AND RELATED METHODS OF USE	Japan	2004-555478	11/18/2003	4546250	
VSI-1033-US01	Abandoned	Guide wire control catheters for crossing occlusions and related methods of use	U.S.	10/301,779	11/22/2002		

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VSI-1033-US02	Abandoned	GUIDE WIRE CONTROL CATHETER FOR CROSSING OCCLUSIONS AND RELATED METHODS OF USE	U.S.	12/207,391	9/9/2008		
VSI-1033-US03	Abandoned	GUIDE WIRE CONTROL CATHETER FOR CROSSING OCCLUSIONS AND RELATED METHODS OF USE	U.S.	14/619,730	2/11/2015		
VSI-1033-WO01	Expired	GUIDE WIRE CONTROL CATHETERS FOR CROSSING OCCLUSIONS AND RELATED METHODS OF USE	PCT	PCT/US03/36783	11/18/2003		
VSI-1035-EP01	Abandoned	SMALL-DIAMETER SNARE	EP	5724826.2	3/7/2005	EP1722697	11/22/2006
VSI-1035-US01	Abandoned	SMALL-DIAMETER SNARE	U.S.	11/074,827	3/7/2005		
VSI-1035-USPR	Expired	SMALL-DIAMETER SNARE	U.S.	60/551,313	3/8/2004		
VSI-1035-WO01	Expired	SMALL-DIAMETER SNARE	PCT	PCT/US05/07361	3/7/2005		
VSI-1036-US01	Abandoned	SYSTEM AND METHOD FOR REMOVAL OF MATERIAL FROM A BLOOD VESSEL USING A SMALL DIAMETER CATHETER	U.S.	11/583,873	10/19/2006		
VSI-1036-WO01	Expired	SYSTEM AND METHOD FOR REMOVAL OF MATERIAL FROM A BLOOD VESSEL USING A SMALL DIAMETER CATHETER	PCT	PCT/US07/22216	10/18/2007		
VSI-1037-US01	Abandoned	SYSTEM AND METHOD FOR REMOVAL OF MATERIAL FROM A BLOOD VESSEL	U.S.	12/275,822	11/21/2008		
VSI-1038-US01	Abandoned	SYSTEM AND METHOD FOR REMOVAL OF MATERIAL FROM A BLOOD VESSEL USING A SMALL DIAMETER CATHETER	U.S.	12/098,201	4/4/2008		

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VSI-1039-EP01	Abandoned	GUIDE WIRE AND CATHETER MANAGEMENT DEVICE	EP	9795110.7	7/8/2009		
VSI-1039-JP01	Abandoned	GUIDE WIRE AND CATHETER MANAGEMENT DEVICE	Japan	2011-517563	7/8/2009		
VSI-1039-US01	Abandoned	GUIDE WIRE AND CATHETER MANAGEMENT DEVICE	U.S.	12/217,852	7/8/2008		
VSI-1039-WO01	Expired	GUIDE WIRE AND CATHETER MANAGEMENT DEVICE	PCT	PCT/US09/49919	7/8/2009		
VSI-1040-US01	Abandoned	GUIDE WIRE RETENTION AND POSITIONING APPARATUS	U.S.	12/148,681	4/21/2008		
VSI-1042-US01	Abandoned	TISSUE TRACT SEALING DEVICE	U.S.	10/007,786	12/7/2001	6840952	1/11/2005
VSI-1043-US01	Abandoned	TISSUE TRACT SEALING DEVICE	U.S.	10/145,179	5/13/2002		
VSI-1044-US01	Abandoned	METHOD AND APPARATUS FOR COAGULATION AND CLOSURE OF PSEUDOANEURYSMS	U.S.	09/943,584	8/30/2001		
VSI-1045-US01	Allowed	Stenotic Region Scoring Assembly and Method	U.S.	14/991,065	1/8/2016		
VSI-1045-USPR	Expired	Stenotic Region Scoring Assembly and Method	U.S.	62/129,997	3/9/2015		
VSI-1046-US01	Published	PATH CREATION THROUGH OCCLUSION	U.S.	15/254,386	9/1/2016		
VSI-1046-USPR	Expired	PATH CREATION THROUGH OCCLUSION	U.S.	62/257,777	11/20/2015		
VSI-1047-CA01	Issued	Guidewire Fixation	Canada	2974544	5/24/2016	2974544	2/27/2018
VSI-1047-CN01	Issued	Guidewire Fixation	China	201680011318.7	5/24/2016	ZL201680011318.7	2/15/2019
VSI-1047-DEEP	Issued	Guidewire Fixation	Germany	3302674	5/24/2016	3302674	1/30/2019
VSI-1047-EP01	Issued	Guidewire Fixation	EP	16728179.9	5/24/2016	3302674	1/30/2019

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VSI-1047-EP02	Published	Guidewire Fixation	EP	18204252.3	5/24/2016		
VSI-1047-ESEP	Issued	Guidewire Fixation	Spain	3302674	5/24/2016	3302674	1/30/2019
VSI-1047-FREP	Issued	Guidewire Fixation	France	3302674	5/24/2016	3302674	1/30/2019
VSI-1047-GBEP	Issued	Guidewire Fixation	United Kingdom	3302674	5/24/2016	3302674	1/30/2019
VSI-1047-HKCN	Published	Guidewire Fixation	Hong Kong	17111832	5/24/2016		
VSI-1047-IEEP	Issued	Guidewire Fixation	Ireland	3302674	5/24/2016	3302674	1/30/2019
VSI-1047-ITEP	Issued	Guidewire Fixation	Italy	3302674	5/24/2016	502019000029906	1/30/2019
VSI-1047-JP01	Published	Guidewire Fixation	Japan	2017-542898	5/24/2016		
VSI-1047-JP02	Published	Guidewire Fixation	Japan	2018-212119	5/24/2016		
VSI-1047-NLEP	Issued	Guidewire Fixation	Netherlands	3302674	5/24/2016	3302674	1/30/2019
VSI-1047-US01	Published	Guidewire Fixation	U.S.	15/163,044	5/24/2016		
VSI-1047-USPR	Expired	Guidewire Fixation	U.S.	62/166,259	5/26/2015		
VSI-1047-USPR2	Expired	Guidewire Fixation	U.S.	62/190,879	7/10/2015		
VSI-1047-WO01	Expired	Guidewire Fixation	PCT	PCT/US2016/033904	5/24/2016		
VSI-1048-US01	Issued	Magnetically-Driven Delivery Assembly and Method	U.S.	15/004,012	1/22/2016	9943314	4/17/2018
VSI-1048-USPR	Expired	Magnetically-Driven Delivery Assembly and Method	U.S.	62/147,008	4/14/2015		

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VSI-1049-CA01	Issued	Closure Device for Sealing Percutaneous Opening in a Vessel	Canada	2975309	2/10/2016	2975309	3/5/2019
VSI-1049-CN01	Published	Closure Device for Sealing Percutaneous Opening in a Vessel	China	201680009204.9	2/10/2016		
VSI-1049-EP01	Published	Closure Device for Sealing Percutaneous Opening in a Vessel	EP	16712553.3	2/10/2016		
VSI-1049-HKCN	Published	Closure Device for Sealing Percutaneous Opening in a Vessel	Hong Kong	17111871.2	2/10/2016		
VSI-1049-JP01	Published	Closure Device for Sealing Percutaneous Opening in a Vessel	Japan	2017-539600	2/10/2016		
VSI-1049-US01	Issued	Closure Device for Sealing Percutaneous Opening in a Vessel	U.S.	15/040,023	2/10/2016	10016188	7/10/2018
VSI-1049-US02	Published	Closure Device for Sealing Percutaneous Opening in a Vessel	U.S.	15/920,665	3/14/2018		
VSI-1049-USPR	Expired	Closure Device for Sealing Percutaneous Opening in a Vessel	U.S.	62/114,101	2/10/2015		
VSI-1049-WO01	Expired	Closure Device for Sealing Percutaneous Opening in a Vessel	PCT	PCT/US2016/017238	2/10/2016		
VSI-1050-US01	Issued	RESORBABLE EMBOLIZATION SPHERES	U.S.	15/131,534	4/18/2016	10071181	9/11/2018
VSI-1050-US02	Pending	RESORBABLE EMBOLIZATION SPHERES	U.S.	15/664,358	7/31/2017		
VSI-1050-US03	Issued	RESORBABLE EMBOLIZATION SPHERES	U.S.	16/034,670	7/13/2018	10179188	1/15/2019
VSI-1050-US04	Pending	RESORBABLE EMBOLIZATION SPHERES	U.S.	16/034,695	7/13/2018		
VSI-1050-USPR	Expired	RESORBABLE EMBOLIZATION SPHERES	U.S.	62/148,889	4/17/2015		
VSI-1051-USPR	Abandoned	RESORBABLE EMBOLIZATION SPHERES	U.S.	62/148,899	4/17/2015		
VSI-1052-US01	Issued	CATHETER CUTTING DEVICE	U.S.	15/063,575	3/8/2016	10065331	9/4/2018

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VSI-1052-USPR	Expired	CATHETER CUTTING DEVICE	U.S.	62/166,274	5/26/2015		
VSI-1053-US01	Published	FLUID DELIVERY OR REMOVAL SYSTEM	U.S.	15/144,879	5/3/2016		
VSI-1053-USPR	Expired	FLUID DELIVERY OR REMOVAL SYSTEM	U.S.	62/203,439	8/11/2015		
VSI-1054-US01	Issued	CATHETER TIP	U.S.	14/860,997	9/22/2015	9782561	10/10/2017
VSI-1054-USPR	Expired	CATHETER TIP	U.S.	62/203,431	8/11/2015		
VSI-1055-US01	Published	SYSTEM AND METHOD FOR FREEZE-DRYING AND PACKAGING	U.S.	15/343,381	11/4/2016		
VSI-1055-USPR	Expired	SYSTEM AND METHOD FOR FREEZE-DRYING AND PACKAGING	U.S.	62/279,955	1/18/2016		
VSI-1056-CA01	Pending	PACING GUIDEWIRE	Canada	3012709	3/10/2017		
VSI-1056-CN01	Published	PACING GUIDEWIRE	China	201780018077.3	3/10/2017		
VSI-1056-EP01	Published	PACING GUIDEWIRE	EP	17712389	3/10/2017		
VSI-1056-HKEP	Pending	PACING GUIDEWIRE	Hong Kong	19100446.9	3/10/2017		
VSI-1056-JP01	Published	PACING GUIDEWIRE	Japan	2019-500221	3/10/2017		
VSI-1056-US01	Published	PACING GUIDEWIRE	U.S.	15/455,254	3/10/2017		
VSI-1056-US02	Issued	PACING GUIDEWIRE	U.S.	15/455,265	3/10/2017	10173052	1/8/2019
VSI-1056-US03	Published	PACING GUIDEWIRE	U.S.	16/214,800	12/10/2018		
VSI-1056-USPR	Expired	PACING GUIDEWIRE	U.S.	62/310,044	3/18/2016		

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VSI-1056-USPR2	Expired	PACING GUIDEWIRE	U.S.	62/346,214	6/6/2016		
VSI-1056-USPR3	Expired	PACING GUIDEWIRE	U.S.	62/378,258	8/23/2016		
VSI-1056-USPR4	Expired	PACING GUIDEWIRE	U.S.	62/436,750	12/20/2016		
VSI-1056-WO01	Expired	PACING GUIDEWIRE	PCT	PCT/US2017/021719	3/10/2017		
VSI-1057-US01	Issued	METHODS FOR FACILITATING REVASCULARIZATION OF OCCLUSION	U.S.	15/340,026	11/1/2016	10245050	4/2/2019
VSI-1057-USPR	Expired	METHODS FOR FACILITATING REVASCULARIZATION OF OCCLUSION	U.S.	62/401,964	9/30/2016		
VSI-1058-DEEP	Unfiled	GUIDE EXTENSION CATHETER	Germany		9/27/2017		
VSI-1058-EP01	Published	GUIDE EXTENSION CATHETER	EP	17193571.1	9/27/2017		
VSI-1058-FREP	Unfiled	GUIDE EXTENSION CATHETER	France		9/27/2017		
VSI-1058-GBEP	Unfiled	GUIDE EXTENSION CATHETER	United Kingdom		9/27/2017		
VSI-1058-IEEP	Unfiled	GUIDE EXTENSION CATHETER	Ireland		9/27/2017		
VSI-1058-US01	Published	GUIDE EXTENSION CATHETER	U.S.	15/581,176	4/28/2017		
VSI-1058-USPR	Expired	GUIDE EXTENSION CATHETER	U.S.	62/431,911	12/9/2016		
VSI-1058-USPR2	Expired	GUIDE EXTENSION CATHETER	U.S.	62/440,438	12/30/2016		
VSI-1059-USPR	Closed	INTRA-VESSEL SEALING COMPONENT	U.S.				
VSI-1061-CA01	Allowed	CATHETER	Canada	3029522	6/6/2018		

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VSI-1061-CA02	Pending	CATHETER	Canada	3050931	6/6/2018		
VSI-1061-CN01	Published	CATHETER	China	201880003146.8	6/6/2018		
VSI-1061-CN02	Published	CATHETER	China	201910214671.0	6/6/2018		
VSI-1061-EP01	Published	CATHETER	EP	18737025.9	6/6/2018		
VSI-1061-EP02	Published	CATHETER	EP	19163614.1	6/6/2018		
VSI-1061-HKEP	Pending	CATHETER	Hong Kong	19127209.5	6/6/2018		
VSI-1061-HKEP2	Unfiled	CATHETER	Hong Kong		6/6/2018		
VSI-1061-JP01	Pending	CATHETER	Japan	2019-508840	6/6/2018		
VSI-1061-JP02	Published	CATHETER	Japan	2019-042568	6/6/2018		
VSI-1061-US01	Issued	CATHETER	U.S.	15/686,962	8/25/2017	10238834	3/26/2019
VSI-1061-US02	Published	CATHETER	U.S.	16/266,785	2/4/2019		
VSI-1061-WO01	Published	CATHETER	PCT	PCT/IB2018/054054	6/6/2018		
VSI-1063-US01	Published	GUIDE EXTENSION CATHETER	U.S.	16/264,803	2/1/2019		
VSI-1063-USPR	Expired	GUIDE EXTENSION CATHETER	U.S.	62/630,321	2/14/2018		
VSI-1063-WO01	Published	GUIDE EXTENSION CATHETER	PCT	PCT/US19/16235	2/1/2019		
VSI-1064-EP01	Pending	SUBINTIMAL CATHETER DEVICE AND ASSEMBLY	EP	18797326.8	10/15/2018		

Patents							
Attorney Ref.	**Status**	**Title**	**Country**	**Application No.**	**Filing Date**	**Patent No.**	**Issue Date**
VSI-1064-US01	Published	SUBINTIMAL CATHETER DEVICE, ASSEMBLY AND RELATED METHODS	U.S.	16/160,162	10/15/2018		
VSI-1064-USPR	Expired	SUBINTIMAL CATHETER DEVICE, ASSEMBLY AND RELATED METHODS	U.S.	62/577,283	10/26/2017		
VSI-1064-WO01	Published	SUBINTIMAL CATHETER DEVICE AND ASSEMBLY	PCT	PCT/US18/55832	10/15/2018		
VSI-1065-US01	Published	BALLOON CATHETER FOR CONTRAST AGENT FILTRATION AND REMOVAL	U.S.	16/264,790	2/1/2019		
VSI-1065-USPR	Expired	BALLOON CATHETER FOR CONTRAST AGENT FILTRATION AND REMOVAL	U.S.	62/630,468	2/14/2018		
VSI-1067-EP01	Pending	PERFUSION CATHETERS AND RELATED METHODS	EP	19178585.6	6/5/2019		
VSI-1067-US01	Pending	PERFUSION CATHETERS AND RELATED METHODS	U.S.	16/414,921	5/17/2019		
VSI-1067-USPR	Expired	PERFUSION CATHETERS AND RELATED METHODS	U.S.	62/701,362	7/20/2018		
VSI-1068-US01	Pending	ELUTING PERFUSION CATHETERS AND RELATED METHODS	U.S.	16/540,844	8/14/2019		
VSI-1068-USPR	Expired	ELUTING PERFUSION CATHETERS AND RELATED METHODS	U.S.	62/719,000	8/16/2018		
VSI-1068-WO01	Pending	ELUTING PERFUSION CATHETERS AND RELATED METHODS	PCT	PCT/US2019/046545	8/14/2019		
VSI-1069-USPR	Pending	GUIDE EXTENSION CATHETER	U.S.	62/807,613	2/19/2019		
VSI-1070-USPR	Pending	GUIDE EXTENSION CATHETER	U.S.	62/771,658	11/27/2018		
VSI-1070-WO01	Pending	GUIDE EXTENSION CATHETER	PCT	PCT/US2019/058783	10/30/2019		

Patents							
Attorney Ref.	**Status**	**Title**	**Country**	**Application No.**	**Filing Date**	**Patent No.**	**Issue Date**
VSI-1071-USPR	Pending	GUIDE EXTENSION CATHETER	U.S.	62/781,973	12/19/2018		
VSI-1071-WO01	Pending	GUIDE EXTENSION CATHETER	PCT	PCT/US2019/058786	10/30/2019		
VSI-1072-USPR	Pending	GUIDE EXTENSION CATHETER	U.S.	62/789,000	1/7/2019		
VSI-1072-WO01	Pending	GUIDE EXTENSION CATHETER	PCT	PCT/US2019/058794	10/30/2019		
VSI-1073-US01	Pending	SYSTEM AND METHOD FOR FREEZE-DRYING AND PACKAGING	U.S.	16/295,165	3/7/2019		

Schedule 2
Vidacare Patent Portfolio

Docket Number	Status	Title	Country	Application Number	Filing Date	Patent Number	Grant Date
040792.024341	GRANTED - (G)	Medical Device Position Location Systems, Devices and Methods	United States - (US)	15/048,837	19-02-16	10,197,518	05-02-19
040792.024343	GRANTED - (G)	Medical Device Position Location Systems, Devices and Methods	European Patent Convention - (EP)	16753175.5	19-02-16	3258839	04-09-19
040792.024344	FILED - (F)	Medical Device Position Location Systems, Devices and Methods	United States - (US)	16/180,513	05-11-18		
040792.024345	GRANTED - (G)	Medical Device Position Location Systems, Devices and Methods	Germany - (DE)	16753175.5	19-02-16	3258839	04-09-19
040792.024346	GRANTED - (G)	Medical Device Position Location Systems, Devices and Methods	France - (FR)	16753175.5	19-02-16	3258839	04-09-19
040792.024347	GRANTED - (G)	Medical Device Position Location Systems, Devices and Methods	Great Britain - (GB)	16753175.5	19-02-16	3258839	04-09-19
040792.024348	FILED - (F)	Medical Device Position Location Systems, Devices and Methods	European Patent Convention - (EP)	19195139.1	19-02-16		
040792.024361	FILED - (F)	Medical Device Position Location Systems, Devices and Methods	United States - (US)	15/048,117	19-02-16		
040792.024363	FILED - (F)	MEDICAL DEVICE POSITION LOCATION SYSTEMS, DEVICES AND METHODS	European Patent Convention - (EP)	16753164.9	19-02-16		
040792.024381	GRANTED - (G)	Medical Device Position Location Systems, Devices and Methods	United States - (US)	15/141,843	29-04-16	10,098,567	16-10-18
040792.024382	INACTIVE - (I)	Medical Device Position Location Systems, Devices and/or Methods	Patent Cooperation Treaty - (WO)	PCT/US2016/029987	29-04-16		
040792.024383	FILED - (F)	Medical Device Position Location Systems, Devices and/or Methods	European Patent Convention - (EP)	16787208.4	29-04-16		

Docket Number	Status	Title	Country	Application Number	Filing Date	Patent Number	Grant Date
040792.024384	FILED - (F)	Medical Device Position Location Systems, Devices and/or Methods	United States - (US)	16/160,686	15-10-18		
040792.024400	GRANTED - (G)	Medical Device Location Systems, Devices And Methods	United States - (US)	12/949,671	18-11-10	8,380,289	19-02-13
040792.024420	GRANTED - (G)	MEDICAL DEVICE LOCATION SYSTEMS, DEVICES AND METHODS	United States - (US)	12/949,663	18-11-10	8,391,956	05-03-13
040792.024422	GRANTED - (G)	Medical Device Location Systems, Devices and Method	European Patent Convention - (EP)	11840907.7	17-11-11	2640260	19-04-17
040792.024423	GRANTED - (G)	Medical Device Location Systems, Devices and Method	Germany - (DE)	11840907.7	17-11-11	2640260	19-04-17
040792.024424	INACTIVE - (I)	Medical Device Location Systems, Devices and Method	Italy - (IT)	11840907.7	17-11-11	2640260	19-04-17
040792.024425	GRANTED - (G)	Medical Device Location Systems, Devices and Method	France - (FR)	11840907.7	17-11-11	2640260	19-04-17
040792.024426	GRANTED - (G)	Medical Device Location Systems, Devices and Method	Great Britain - (GB)	11840907.7	17-11-11	2640260	19-04-17
040792.024427	FILED - (F)	Medical Device Location Systems, Devices and Method	European Patent Convention - (EP)	16203531.5	17-11-11		
044774.024060	GRANTED - (G)	BIOPSY NEEDLE	United States - (US)	09/955,790	19-09-01	6,875,183	05-04-05
044774.024061	INACTIVE - (I)	BIOPSY NEEDLE	Patent Cooperation Treaty - (WO)	PCT/GB2000/001003	17-03-00		
044774.024062	GRANTED - (G)	BIOPSY NEEDLE	Japan - (JP)	2000-606129	17-03-00	4638051	03-12-10
044774.024063	GRANTED - (G)	BIOPSY NEEDLE	European Patent Convention - (EP)	00911068.5	17-03-00	1164937	10-01-07
044774.024064	GRANTED - (G)	BIOPSY NEEDLE	Germany - (DE)	00911068.5	17-03-00	1164937	10-01-07
044774.024065	GRANTED - (G)	BIOPSY NEEDLE	France - (FR)	00911068.5	17-03-00	1164937	10-01-07

Docket Number	Status	Title	Country	Application Number	Filing Date	Patent Number	Grant Date
044774.024066	GRANTED - (G)	BIOPSY NEEDLE	Great Britain - (GB)	00911068.5	17-03-00	1164937	10-01-07
044774.024067	GRANTED - (G)	BIOPSY NEEDLE	Italy - (IT)	00911068.5	17-03-00	1164937	10-01-07
044774.024080	GRANTED - (G)	MEDICAL PROCEDURES TRAYS AND RELATED METHODS	United States - (US)	11/853,701	11-09-07	8,656,929	25-02-14
044774.024081	GRANTED - (G)	Medical Procedures Trays and Related Methods	United States - (US)	14/189,809	25-02-14	9,510,910	06-12-16
044774.024100	GRANTED - (G)	ASSEMBLIES FOR COUPLING INTRAOSSEOUS (IO) DEVICES TO POWERED DRIVERS	United States - (US)	12/407,651	19-03-09	8,944,069	03-02-15
044774.024101	INACTIVE - (I)	Vertebral Access System and Methods	United States - (US)	14/600,162	20-01-15		
044774.024102	FILED - (F)	Vertebral Access System And Methods	United States - (US)	16/155,505	09-10-18		
044774.024120	GRANTED - (G)	ASSEMBLY FOR COUPLING POWERED DRIVER WITH INTRAOSSEOUS DEVICE	United States - (US)	11/853,678	11-09-07	8,668,698	11-03-14
044774.024121	GRANTED - (G)	Assembly for Coupling Powered Driver With Intraosseous Device	United States - (US)	14/184,194	19-02-14	10,245,010	02-04-19
044774.024122	FILED - (F)	Assembly for Coupling Powered Driver With Intraosseous Device	United States - (US)	16/359,834	20-03-19		
044774.024140	INACTIVE - (I)	APPARATUS AND METHOD TO ACCESS THE BONE MARROW	Patent Cooperation Treaty - (WO)	PCT/US2003/017167	30-05-03		
044774.024141	INACTIVE - (I)	APPARATUS AND METHOD TO ACCESS THE BONE MARROW	Australia - (AU)	2003231939	30-05-03		
044774.024142	INACTIVE - (I)	APPARATUS AND METHOD TO ACCESS THE BONE MARROW	Brazil - (BR)	PI0311462.7	30-05-03		
044774.024143	GRANTED - (G)	APPARATUS AND METHOD TO ACCESS THE BONE MARROW	Canada - (CA)	2485904	30-05-03	2485904	21-05-13

Docket Number	Status	Title	Country	Application Number	Filing Date	Patent Number	Grant Date
044774.024144	INACTIVE - (I)	APPARATUS AND METHOD TO ACCESS THE BONE MARROW	Israel - (IL)	165222	30-05-03		
044774.024145	GRANTED - (G)	APPARATUS AND METHOD TO ACCESS THE BONE MARROW	Japan - (JP)	2004-508669	30-05-03	4489583	09-04-10
044774.024146	GRANTED - (G)	APPARATUS AND METHOD TO ACCESS THE BONE MARROW	European Patent Convention - (EP)	03756317.8	30-05-03	1509140	13-05-19
044774.024147	INACTIVE - (I)	APPARATUS AND METHOD TO ACCESS THE BONE MARROW	Switzerland - (CH)	03756317.8	30-05-03	1509140	
044774.024148	GRANTED - (G)	APPARATUS AND METHOD TO ACCESS THE BONE MARROW	Germany - (DE)	03756317.8	30-05-03	1509140	13-05-19
044774.024149	INACTIVE - (I)	APPARATUS AND METHOD TO ACCESS THE BONE MARROW	Spain - (ES)	03756317.8	30-05-03	1509140	
044774.024150	GRANTED - (G)	APPARATUS AND METHOD TO ACCESS THE BONE MARROW	France - (FR)	03756317.8	30-05-03	1509140	13-05-19
044774.024151	GRANTED - (G)	APPARATUS AND METHOD TO ACCESS THE BONE MARROW	Great Britain - (GB)	03756317.8	30-05-03	1509140	13-05-19
044774.024152	GRANTED - (G)	APPARATUS AND METHOD TO ACCESS THE BONE MARROW	Italy - (IT)	03756317.8	30-05-03	1509140	13-05-19
044774.024153	INACTIVE - (I)	APPARATUS AND METHOD TO ACCESS THE BONE MARROW	Netherland - (NL)	03756317.8	30-05-03	1509140	
044774.024154	INACTIVE - (I)	APPARATUS AND METHOD TO ACCESS THE BONE MARROW	Sweden - (SE)	03756317.8	30-05-03	1509140	
044774.024155	GRANTED - (G)	APPARATUS AND METHOD TO ACCESS BONE MARROW	European Patent Convention - (EP)	09155111.9	30-05-03	2064997	27-04-11
044774.024156	INACTIVE - (I)	APPARATUS AND METHOD TO ACCESS BONE MARROW	Switzerland - (CH)	09155111.9	30-05-03	2064997	
044774.024157	GRANTED - (G)	APPARATUS AND METHOD TO ACCESS BONE MARROW	Germany - (DE)	09155111.9	30-05-03	2064997	27-04-11
044774.024160	INACTIVE - (I)	APPARATUS AND METHOD TO ACCESS THE BONE MARROW FOR ONCOLOGY AND STEM CELL APPLICATIONS	United States - (US)	11/781,597	23-07-07		

Docket Number	Status	Title	Country	Application Number	Filing Date	Patent Number	Grant Date
044774.024161	INACTIVE - (I)	APPARATUS AND METHOD TO ACCESS THE BONE MARROW FOR ONCOLOGY AND STEM CELL APPLICATIONS	United States - (US)	12/701,268	23-07-07		
044774.024162	INACTIVE - (I)	APPARATUS AND METHOD TO ACCESS THE BONE MARROW FOR ONCOLOGY AND STEM CELL APPLICATIONS	United States - (US)	11/389,733	23-07-07		
044774.024163	INACTIVE - (I)	APPARATUS AND METHOD TO ACCESS THE BONE MARROW FOR ONCOLOGY AND STEM CELL APPLICATIONS	United States - (US)	11/781,568	23-07-07		
044774.024164	GRANTED - (G)	BIOPSY DEVICES AND RELATED METHODS	United States - (US)	11/853,685	11-09-07	7,850,620	14-12-10
044774.024165	GRANTED - (G)	Biopsy Devices and Related Methods	United States - (US)	12/963,255	08-12-10	9,717,564	01-08-17
044774.024166	FILED - (F)	Biopsy Devices and Related Methods	United States - (US)	15/615,596	06-06-17		
044774.024180	INACTIVE - (I)	APPARATUS AND METHODS FOR BIOPSY AND ASPIRATION OF BONE MARROW	United States - (US)	60/825,325	12-09-06		
044774.024181	INACTIVE - (I)	APPARATUS AND METHODS FOR BIOPSY AND ASPIRATION OF BONE MARROW	Patent Cooperation Treaty - (WO)	PCT/US2007/078203	11-09-07		
044774.024182	GRANTED - (G)	APPARATUS AND METHODS FOR BIOPSY AND ASPIRATION OF BONE MARROW	China P.R. - (CN)	200780001198.3	11-09-07	101365390	16-02-11
044774.024183	GRANTED - (G)	APPARATUS FOR BIOPSY AND ASPIRATION OF BONE MARROW	European Patent Convention - (EP)	07842284.7	11-09-07	2068725	09-11-16
044774.024184	FILED - (F)	Biopsy & Aspiration of Bone Marrow (Div1)	European Patent Convention - (EP)	16192247.1	11-09-07		

Docket Number	Status	Title	Country	Application Number	Filing Date	Patent Number	Grant Date
044774.024185	GRANTED - (G)	Apparatus and Methods for Biopsy and Aspiration of Bone Marrow	Great Britain - (GB)	07842284.7	11-09-07	2068725	09-11-16
044774.024186	GRANTED - (G)	Apparatus and Methods for Biopsy and Aspiration of Bone Marrow	Germany - (DE)	07842284.7	11-09-07	602007048697.1	09-11-16
044774.024187	GRANTED - (G)	Apparatus and Methods for Biopsy and Aspiration of Bone Marrow	France - (FR)	07842284.7	11-09-07	2068725	09-11-16
044774.024188	GRANTED - (G)	Apparatus and Methods for Biopsy and Aspiration of Bone Marrow	Italy - (IT)	07842284.7	11-09-07	2068725	09-11-16
044774.024189	INACTIVE - (I)	Apparatus and Methods for Biopsy and Aspiration of Bone Marrow	Spain - (ES)	07842284.7	11-09-07	ES2609923T3	
044774.024190	INACTIVE - (I)	Apparatus and Methods for Biopsy and Aspiration of Bone Marrow	Netherland - (NL)	07842284.7	11-09-07	2068725	
044774.024200	INACTIVE - (I)	BIOPSY DEVICES AND RELATED METHODS	Patent Cooperation Treaty - (WO)	PCT/US2007/078204	11-09-07		
044774.024201	GRANTED - (G)	BIOPSY DEVICES AND RELATED METHODS	China P.R. - (CN)	200780001190.7	11-09-07	101516274	19-10-11
044774.024202	GRANTED - (G)	Biopsy Device	European Patent Convention - (EP)	07842285.4	11-09-07	2073728	07-11-18
044774.024203	GRANTED - (G)	BIOPSY DEVICES AND RELATED METHODS	France - (FR)	07842285.4	11-09-07	2073728	07-11-18

Docket Number	Status	Title	Country	Application Number	Filing Date	Patent Number	Grant Date
044774.024204	GRANTED - (G)	BIOPSY DEVICES AND RELATED METHODS	Germany - (DE)	07842285.4	11-09-07	2073728	07-11-18
044774.024205	GRANTED - (G)	BIOPSY DEVICES AND RELATED METHODS	Italy - (IT)	07842285.4	11-09-07	2073728	07-11-18
044774.024206	GRANTED - (G)	BIOPSY DEVICES AND RELATED METHODS	Great Britain - (GB)	07842285.4	11-09-07	2073728	07-11-18
044774.024220	INACTIVE - (I)	MEDICAL PROCEDURES TRAYS AND RELATED METHODS	Patent Cooperation Treaty - (WO)	PCT/US2007/078205	11-09-07		
044774.024221	GRANTED - (G)	MEDICAL PROCEDURES TRAYS AND RELATED METHODS	China P.R. - (CN)	200780001188.X	11-09-07	101534740	20-06-12
044774.024222	GRANTED - (G)	MEDICAL PROCEDURES TRAYS AND RELATED METHODS	China P.R. - (CN)	201210110577.9	11-09-07	102626344	11-03-15
044774.024223	GRANTED - (G)	Medical procedures trays with intraosseous devices	China P.R. - (CN)	201510050199.3	11-09-07	104814768	13-04-18
044774.024224	GRANTED - (G)	Medical Procedure Trays	European Patent Convention - (EP)	07842286.2	11-09-07	2068743	15-03-17
044774.024225	GRANTED - (G)	MEDICAL PROCEDURES TRAYS AND RELATED METHODS	Germany - (DE)	07842286.2	11-09-07	60 2007 050 227.6	15-03-17
044774.024226	GRANTED - (G)	MEDICAL PROCEDURES TRAYS AND RELATED METHODS	Great Britain - (GB)	07842286.2	11-09-07	2068743	15-03-17
044774.024227	GRANTED - (G)	MEDICAL PROCEDURES TRAYS AND RELATED METHODS	France - (FR)	07842286.2	11-09-07	2068743	15-03-17
044774.024228	GRANTED - (G)	MEDICAL PROCEDURES TRAYS AND RELATED METHODS	Italy - (IT)	07842286.2	11-09-07	2068743	15-03-17
044774.024229	GRANTED - (G)	MEDICAL PROCEDURES TRAYS AND RELATED METHODS	European Patent Convention - (EP)	17154221.0	11-09-07	3189787	09-01-19

Docket Number	Status	Title	Country	Application Number	Filing Date	Patent Number	Grant Date
044774.024230	GRANTED - (G)	MEDICAL PROCEDURES TRAYS AND RELATED METHODS	France - (FR)	17154221.0	11-09-07	3189787	09-01-19
044774.024231	GRANTED - (G)	MEDICAL PROCEDURES TRAYS AND RELATED METHODS	Great Britain - (GB)	17154221.0	11-09-07	3189787	09-01-19
044774.024232	GRANTED - (G)	MEDICAL PROCEDURES TRAYS AND RELATED METHODS	Germany - (DE)	17154221.0	11-09-07	602007057418.8	09-01-19
044774.024240	INACTIVE - (I)	BONE MARROW ASPIRATION DEVICES AND RELATED METHODS	Patent Cooperation Treaty - (WO)	PCT/US2007/078207	11-09-07		
044774.024241	INACTIVE - (I)	MEDICAL PROCEDURES TRAYS AND RELATED METHODS	China P.R. - (CN)	200780001196.4	11-09-07		
044774.024242	GRANTED - (G)	BONE MARROW ASPIRATION DEVICES	European Patent Convention - (EP)	07842288.8	11-09-07	2066389	07-12-16
044774.024243	GRANTED - (G)	Bone Marrow Aspiration Devices And Related Methods	Great Britain - (GB)	07842288.8	11-09-07	2066389	07-12-16
044774.024244	GRANTED - (G)	Bone Marrow Aspiration Devices And Related Methods	Germany - (DE)	07842288.8	11-09-07	602007049079.0	07-12-16
044774.024245	GRANTED - (G)	Bone Marrow Aspiration Devices And Related Methods	France - (FR)	07842288.8	11-09-07	2066389	07-12-16
044774.024246	GRANTED - (G)	Bone Marrow Aspiration Devices And Related Methods	Italy - (IT)	07842288.8	11-09-07	2066389	07-12-16
044774.024247	INACTIVE - (I)	Bone Marrow Aspiration Devices And Related Methods	Spain - (ES)	07842288.8	11-09-07	ES2612955 T3	
044774.024248	INACTIVE - (I)	Bone Marrow Aspiration Devices And Related Methods	Netherland - (NL)	07842288.8	11-09-07	2066389	
044774.024249	FILED - (F)	Bone Marrow Aspiration Devices	European Patent Convention - (EP)	16196168.5	11-09-07		
044774.024250	FILED - (F)	Bone Marrow Aspiration Devices	Germany - (DE)	16196168.5	11-09-07		
044774.024251	FILED - (F)	Bone Marrow Aspiration Devices	Italy - (IT)	16196168.5	11-09-07		
044774.024252	FILED - (F)	Bone Marrow Aspiration Devices	France - (FR)	16196168.5	11-09-07		
044774.024253	FILED - (F)	Bone Marrow Aspiration Devices	Great Britain - (GB)	16196168.5	11-09-07		

Docket Number	Status	Title	Country	Application Number	Filing Date	Patent Number	Grant Date
044774.024254	DOCKETED - (D)	Bone Marrow Aspiration Devices and Related Methods	European Patent Convention - (EP)				
044774.024260	GRANTED - (G)	INTRAOSSEOUS NEEDLE SETS AND KITS	United States - (US)	13/835,046	15-03-13	9,414,815	16-08-16
044774.024262	INACTIVE - (I)	INTRAOSSEOUS NEEDLE SETS AND KITS	Patent Cooperation Treaty - (WO)	PCT/US2014/028564	14-03-14		
044774.024263	GRANTED - (G)	Intraosseous Needle Sets and Kits	European Patent Convention - (EP)	14765525.2	14-03-14	2967508	07-08-19
044774.024264	FILED - (F)	INTRAOSSEOUS NEEDLE SETS AND KITS	Canada - (CA)	2907150	14-03-14		
044774.024265	GRANTED - (G)	INTRAOSSEOUS NEEDLE SETS AND KITS	Japan - (JP)	2016-502835	14-03-14	6420818	19-10-18
044774.024266	GRANTED - (G)	Intraosseous Needle Sets	United States - (US)	15/237,213	15-03-13	10,130,343	20-11-18
044774.024267	FILED - (F)	Intraosseous Needle Sets and Kits	Japan - (JP)	2018-101374	14-03-14		
044774.024268	FILED - (F)	Intraosseous Needle Sets	United States - (US)	16/195,343	15-03-13		
044774.024269	FILED - (F)	Intraosseous Needle Sets and Kits	European Patent Convention - (EP)	19183246.8	14-03-14		
044774.024270	GRANTED - (G)	Intraosseous Needle Sets and Kits	Germany - (DE)	14765525.2	14-03-14	2967508	07-08-19
044774.024271	GRANTED - (G)	Intraosseous Needle Sets and Kits	France - (FR)	14765525.2	14-03-14	2967508	07-08-19
044774.024272	GRANTED - (G)	Intraosseous Needle Sets and Kits	Great Britain - (GB)	14765525.2	14-03-14	2967508	07-08-19
044774.024280	INACTIVE - (I)	Intraosseious Device Handles, Systems, and Methods	Patent Cooperation Treaty - (WO)	PCT/US2013/031928	15-03-13		
044774.024281	GRANTED - (G)	INTRAOSSEOUS DEVICE HANDLES, SYSTEMS, AND METHODS	Australia - (AU)	2013381963	15-03-13	2013381963	28-07-17
044774.024282	INACTIVE - (I)	Intraosseious Device Handles, Systems, and Methods	South Korea - (KR)	10-2015-7029737	15-03-13		
044774.024283	GRANTED - (G)	Intraosseous Device Handles, Systems, and Methods	Canada - (CA)	2907053	15-03-13	2907053	02-01-18

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044774.024284	GRANTED - (G)	Intraosseous device handles, systems, and methods	Australia - (AU)	2017204794	15-03-13	2017204794	10-01-19
044774.024300	INACTIVE - (I)	ASSISTIVE DEVICE FOR REMOVING A BIOLOGICAL SAMPLE FROM AN INTRAOSSEOUS DEVICE, AND RELATED KITS AND METHODS	United States - (US)	61/937,365	07-02-14		
044774.024301	FILED - (F)	Assistive Device for Removing a Biological Sample from an Intraosseous Device, and Related Kits and Methods	United States - (US)	14/616,330	06-02-15		
044774.024302	INACTIVE - (I)	ASSISTIVE DEVICE FOR REMOVING A BIOLOGICAL SAMPLE FROM AN INTRAOSSEOUS DEVICE, AND RELATED KITS AND METHODS	Patent Cooperation Treaty - (WO)	PCT/US2015/014806	06-02-15		
044774.024303	FILED - (F)	Assistive Device For Removing A Biological Sample From An Intraosseous Device, And Related Kits And Methods	China P.R. - (CN)	2015800178721	06-02-15		
044774.024304	GRANTED - (G)	Assistive Device For Removing A Biological Sample From An Intraosseous Device, And Related Kits And Methods	Japan - (JP)	2016-568468	06-02-15	6452729	21-12-18
044774.024305	GRANTED - (G)	Assistive Device For Removing A Biological Sample From An Intraosseous Device, And Related Kits And Methods	European Patent Convention - (EP)	15746455.3	06-02-15	3102114	09-10-19
044774.024306	GRANTED - (G)	Assistive Device For Removing A Biological Sample From An Intraosseous Device, And Related Kits And Methods	Germany - (DE)	15746455.3	06-02-15	3102114	09-10-19

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044774.024307	GRANTED - (G)	Assistive Device For Removing A Biological Sample From An Intraosseous Device, And Related Kits And Methods	France - (FR)	15746455.3	06-02-15	3102114	09-10-19
044774.024308	GRANTED - (G)	Assistive Device For Removing A Biological Sample From An Intraosseous Device, And Related Kits And Methods	Great Britain - (GB)	15746455.3	06-02-15	3102114	09-10-19
044774.024309	FILED - (F)	Assistive Device for Removing A Biologicla Sample From an Intraosseous Device, and Related Kits and Methods	European Patent Convention - (EP)	19198487.1	06-02-15		
044774.024320	FILED - (F)	Intraosseous Device Handles, Systems, and Methods	United States - (US)	14/776,014	14-09-15		
099599.021508	INACTIVE - (I)	AN IMPROVED BONE MARROW BIOPSY NEEDLE	Great Britain - (GB)	9906257.2	19-03-99		
099599.021509	INACTIVE - (I)	BIOPSY NEEDLE	Great Britain - (GB)	9926427.7	08-11-99		
099599.021520	INACTIVE - (I)	INTRA-OSSEOUS NEEDLE DRILL	United States - (US)	08/397,779	03-03-95	5,554,154	10-09-96
099599.021540	INACTIVE - (I)	APPARATUS AND METHOD TO PROVIDE ACCESS TO BONE MARROW	United States - (US)	60/384,756	31-05-02		
099599.021541	GRANTED - (G)	APPARATUS AND METHOD TO PROVIDE EMERGENCY ACCESS TO BONE MARROW	United States - (US)	10/449,503	30-05-03	7,670,328	02-03-10
099599.021542	GRANTED - (G)	APPARATUS AND METHOD TO PROVIDE EMERGENCY ACCESS TO BONE MARROW	United States - (US)	12/331,979	10-12-08	8,715,287	06-05-14
099599.021543	GRANTED - (G)	APPARATUS AND METHOD TO PROVIDE EMERGENCY ACCESS TO BONE MARROW	United States - (US)	14/271,144	06-05-14	8,992,535	31-03-15
099599.021544	GRANTED - (G)	APPARATUS AND METHOD TO PROVIDE EMERGENCY ACCESS TO BONE MARROW	United States - (US)	14/666,391	24-03-15	9,393,031	19-07-16

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099599.021545	INACTIVE - (I)	Apparatus And Method To Access Bone Marrow	Patent Cooperation Treaty - (WO)	PCT/US2003/017203	30-05-03		
099599.021546	GRANTED - (G)	APPARATUS AND METHOD TO ACCESS BONE MARROW	European Patent Convention - (EP)	03731475.4	30-05-03	1509139	15-07-09
099599.021547	INACTIVE - (I)	APPARATUS AND METHOD TO ACCESS BONE MARROW	Switzerland - (CH)	03731475.4	30-05-03	1509139	15-07-09
099599.021548	GRANTED - (G)	APPARATUS AND METHOD TO ACCESS BONE MARROW	Germany - (DE)	03731475.4	30-05-03	1509139	15-07-09
099599.021549	INACTIVE - (I)	APPARATUS AND METHOD TO ACCESS BONE MARROW	Spain - (ES)	03731475.4	30-05-03	1509139	15-07-09
099599.021550	GRANTED - (G)	APPARATUS AND METHOD TO ACCESS BONE MARROW	France - (FR)	03731475.4	30-05-03	1509139	15-07-09
099599.021551	GRANTED - (G)	APPARATUS AND METHOD TO ACCESS BONE MARROW	Great Britain - (GB)	03731475.4	30-05-03	1509139	15-07-09
099599.021552	GRANTED - (G)	APPARATUS AND METHOD TO ACCESS BONE MARROW	Italy - (IT)	03731475.4	30-05-03	1509139	15-07-09
099599.021553	INACTIVE - (I)	APPARATUS AND METHOD TO ACCESS BONE MARROW	Netherland - (NL)	03731475.4	30-05-03	1509139	15-07-09
099599.021554	INACTIVE - (I)	APPARATUS AND METHOD TO ACCESS BONE MARROW	Sweden - (SE)	03731475.4	30-05-03	1509139	15-07-09
099599.021555	GRANTED - (G)	Apparatus to access bone marrow	European Patent Convention - (EP)	08021732.6	30-05-03	2039298	25-10-17
099599.021556	GRANTED - (G)	APPARATUS AND METHOD TO ACCESS BONE MARROW	Australia - (AU)	2003240970	30-05-03	2003240970	08-09-08
099599.021557	INACTIVE - (I)	APPARATUS AND METHOD TO ACCESS BONE MARROW	Brazil - (BR)	PI0311520.8	30-05-03		
099599.021558	GRANTED - (G)	APPARATUS AND METHOD TO ACCESS BONE MARROW	Canada - (CA)	2485910	30-05-03	2485910	03-05-16
099599.021559	GRANTED - (G)	APPARATUS AND METHOD TO ACCESS BONE MARROW	Canada - (CA)	2898210	30-05-03	2898210	13-11-18

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099599.021560	INACTIVE - (I)	APPARATUS AND METHOD TO ACCESS BONE MARROW	Israel - (IL)	165224	30-05-03		
099599.021561	GRANTED - (G)	APPARATUS AND METHOD TO ACCESS BONE MARROW	Japan - (JP)	2004-508670	30-05-03	4938979	02-03-12
099599.021562	GRANTED - (G)	APPARATUS AND METHOD TO ACCESS BONE MARROW	Japan - (JP)	2009-242693	30-05-03	5474484	14-02-14
099599.021563	GRANTED - (G)	APPARATUS AND METHOD TO ACCESS BONE MARROW	Japan - (JP)	2013-000197	30-05-03	5953238	17-06-16
099599.021564	GRANTED - (G)	APPARATUS TO ACCESS BONE MARROW	France - (FR)	08021732.6	30-05-03	2039298	25-10-17
099599.021565	GRANTED - (G)	APPARATUS TO ACCESS BONE MARROW	Germany - (DE)	08021732.6	30-05-03	2039298	25-10-17
099599.021566	GRANTED - (G)	APPARATUS TO ACCESS BONE MARROW	Italy - (IT)	08021732.6	30-05-03	2039298	25-10-17
099599.021567	GRANTED - (G)	APPARATUS TO ACCESS BONE MARROW	Great Britain - (GB)	08021732.6	30-05-03	2039298	25-10-17
099599.021568	FILED - (F)	Apparatus and Method to Access Bone Marrow	Canada - (CA)	3004862	30-05-03		
099599.021569	INACTIVE - (I)	Access Bone Marrow	European Patent Convention - (EP)	17198059.2	30-05-03		
099599.021580	GRANTED - (G)	APPARATUS AND METHOD TO INJECT FLUIDS INTO BONE MARROW AND OTHER TARGET SITES	United States - (US)	11/190,331	27-07-05	7,811,260	12-10-10
099599.021581	GRANTED - (G)	APPARATUS AND METHOD TO INJECT FLUIDS INTO BONE MARROW AND OTHER TARGET SITES	United States - (US)	12/899,696	07-10-10	8,684,978	01-04-14
099599.021582	GRANTED - (G)	APPARATUS AND METHOD TO INJECT FLUIDS INTO BONE MARROW AND OTHER TARGET SITES	United States - (US)	12/347,506	31-12-08	8,038,664	18-10-11

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099599.021583	GRANTED - (G)	Apparatus and Method to Inject Fluids Into Bone Marrow and Other Target Sites	United States - (US)	13/275,148	17-10-11	9,717,847	01-08-17
099599.021584	GRANTED - (G)	CARTRIDGE APPARATUS FOR INJECTING FLUIDS INTO BONE	United States - (US)	12/718,606	05-03-10	8,480,632	09-07-13
099599.021585	GRANTED - (G)	APPARATUS AND METHOD TO INJECT FLUIDS INTO BONE MARROW AND OTHER TARGET SITES	United States - (US)	12/718,638	05-03-10	9,295,487	29-03-16
099599.021586	GRANTED - (G)	BONE PENETRATING NEEDLE WITH ANGLED PORTS	United States - (US)	12/554,708	04-09-09	8,308,693	13-11-12
099599.021587	INACTIVE - (I)	APPARATUS AND METHODS TO INSTALL, SUPPORT AND/OR MONITOR PERFORMANCE OF INTRAOSSEOUS DEVICES	United States - (US)	11/461,885	02-08-06		
099599.021588	GRANTED - (G)	Apparatus and Methods to Install, Support And/or Monitor Performance of Intraosseous Devices	United States - (US)	12/947,312	16-11-10	9,439,667	13-09-16
099599.021589	GRANTED - (G)	Apparatus to Inject Fluids into Bone Marrow and Other Target Sites	United States - (US)	15/064,272	08-03-16	10,166,332	01-01-19
099599.021590	GRANTED - (G)	Apparatus and Methods to Install, Support and/or Monitor Performance of Intraosseous Devices	United States - (US)	15/262,030	12-09-16	10,016,217	10-07-18
099599.021591	FILED - (F)	Apparatus and Methods to Install, Support and/or Monitor Performance of Intraosseous Devices	United States - (US)	16/030,333	09-07-18		
099599.021592	FILED - (F)	Apparatus to Inject Fluids Into Bone Marrow and Other Target Sites	United States - (US)	16/236,031	28-12-18		

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099599.021600	GRANTED - (G)	VASCULAR ACCESS KITS AND METHODS	United States - (US)	11/380,340	26-04-06	9,072,543	07-07-15
099599.021601	GRANTED - (G)	Vascular Access Kits and Methods	United States - (US)	14/791,654	06-07-15	9,872,703	23-01-18
099599.021602	FILED - (F)	Vascular Access Kits and Methods	United States - (US)	15/854,406	26-12-17		
099599.021698	INACTIVE - (I)	APPARATUS AND METHOD TO ACCESS BONE MARROW	Spain - (ES)	09155111.9	30-05-03	2064997	27-04-11
099599.021699	GRANTED - (G)	APPARATUS AND METHOD TO ACCESS BONE MARROW	France - (FR)	09155111.9	30-05-03	2064997	27-04-11
099599.021700	GRANTED - (G)	APPARATUS AND METHOD TO ACCESS BONE MARROW	Great Britain - (GB)	09155111.9	30-05-03	2064997	27-04-11
099599.021701	GRANTED - (G)	APPARATUS AND METHOD TO ACCESS BONE MARROW	Italy - (IT)	09155111.9	30-05-03	2064997	27-04-11
099599.021702	INACTIVE - (I)	APPARATUS AND METHOD TO ACCESS BONE MARROW	Netherland - (NL)	09155111.9	30-05-03	2064997	27-04-11
099599.021703	INACTIVE - (I)	APPARATUS AND METHOD TO ACCESS BONE MARROW	Sweden - (SE)	09155111.9	30-05-03	2064997	27-04-11
099599.021720	INACTIVE - (I)	APPARATUS AND METHOD FOR ACCESSING THE BONE MARROW OF THE STERNUM	United States - (US)	60/519,462	12-11-03		
099599.021721	GRANTED - (G)	APPARATUS AND METHOD FOR ACCESSING THE BONE MARROW OF THE STERNUM	United States - (US)	10/987,051	12-11-04	8,142,365	27-03-12
099599.021722	GRANTED - (G)	Apparatus and Method for Accessing the Bone Marrow	United States - (US)	11/023,173	27-12-04	9,314,228	19-04-16
099599.021723	INACTIVE - (I)	REUSABLE INTRAOSSEOUS DEVICE AND METHOD FOR ACCESSING BONE MARROW IN THE STERNUM	Patent Cooperation Treaty - (WO)	PCT/US2004/037753	12-11-04		
099599.021724	INACTIVE - (I)	APPARATUS AND METHOD FOR ACCESSING THE BONE MARROW OF THE STERNUM	Taiwan - (TW)	093134480	11-11-04		

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099599.021725	INACTIVE - (I)	INTRAOSSEOUS DEVICE AND METHODS FOR ACCESSING BONE MARROW IN THE STERNUM AND OTHER TARGET AREAS	Taiwan - (TW)	097100578	07-01-08		
099599.021726	FILED - (F)	Apparatus for Accessing Bone Marrow Including Depth Control Mechanism	United States - (US)	15/084,541	30-03-16		
099599.021740	GRANTED - (G)	INTRAOSSEOUS DEVICE AND METHODS FOR ACCESSING BONE MARROW IN THE STERNUM AND OTHER TARGET AREAS	United States - (US)	11/620,927	08-01-07	8,998,848	07-04-15
099599.021741	GRANTED - (G)	INTRAOSSEOUS DEVICE AND METHODS FOR ACCESSING BONE MARROW IN THE STERNUM AND OTHER TARGET AREAS	United States - (US)	12/554,664	04-09-09	8,419,683	16-04-13
099599.021742	INACTIVE - (I)	INTRAOSSEOUS DEVICE AND METHODS FOR ACCESSING BONE MARROW IN THE STERNUM AND OTHER TARGET AREAS	United States - (US)	14/670,565	27-03-15		
099599.021760	INACTIVE - (I)	VASCULAR ACCESS KIT	United States - (US)	60/675,246	27-04-05		
099599.021780	INACTIVE - (I)	APPARATUS AND METHODS TO HARVEST BONE AND BONE MARROW	Patent Cooperation Treaty - (WO)	PCT/US2007/072202	27-06-07		
099599.021781	GRANTED - (G)	APPARATUS AND METHODS TO HARVEST BONE AND BONE MARROW	China P.R. - (CN)	200780000590.6	27-06-07	101325914	15-09-10
099599.021782	INACTIVE - (I)	APPARATUS AND METHOD TO ACCESS THE BONE MARROW FOR ONCOLOGY AND STEM CELL APPLICATIONS	United States - (US)	10/448,650	30-05-03		

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099599.021783	INACTIVE - (I)	APPARATUS AND METHOD TO ACCESS THE BONE MARROW FOR ONCOLOGY AND STEM CELL APPLICATIONS	United States - (US)	11/389,732	27-03-06		
099599.021784	GRANTED - (G)	APPARATUS AND METHODS TO HARVEST BONE AND BONE MARROW	United States - (US)	11/427,501	29-06-06	7,951,089	31-05-11
099599.021785	GRANTED - (G)	APPARATUS AND METHOD TO ACCESS THE BONE MARROW	United States - (US)	12/427,310	21-04-09	8,690,791	08-04-14
099599.021786	GRANTED - (G)	APPARATUS AND METHODS TO HARVEST BONE AND BONE MARROW	United States - (US)	12/259,745	28-10-08	9,078,637	14-07-15
099599.021787	GRANTED - (G)	Apparatus and Methods to Harvest Bone and Bone Marrow	United States - (US)	14/798,182	13-07-15	10,413,282	17-09-19
099599.021794	GRANTED - (G)	Bone Marrow Aspiration Devices and Related Methods	United States - (US)	11/853,691	11-09-07	9,545,243	17-01-17
099599.021796	FILED - (F)	Apparatus and Methods to Harvest Bone and Bone Marrow	United States - (US)	16/571,937	16-09-19		
099599.021800	INACTIVE - (I)	MEANS TO ACHIEVE AND MONITOR INTRAOSSEOUS INFUSION	Patent Cooperation Treaty - (WO)	PCT/US2007/072217	27-06-07		
099599.021801	INACTIVE - (I)	APPARATUS AND METHODS TO INSTALL, SUPPORT AND/OR MONITOR PERFORMANCE OF INTRAOSSEOUS DEVICES	China P.R. - (CN)	200780000588.9	27-06-07		
099599.021820	INACTIVE - (I)	APPARATUS AND METHOD FOR INJECTIONS INTO MARROW	Patent Cooperation Treaty - (WO)	PCT/US2006/025201	27-06-06		
099599.021821	GRANTED - (G)	APPARATUS AND METHOD TO INJECT FLUIDS INTO BONE MARROW AND OTHER TARGET SITES	Canada - (CA)	2612483	27-06-06	2612483	18-12-18

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099599.021822	GRANTED - (G)	APPARATUS AND METHOD TO INJECT FLUIDS INTO BONE MARROW AND OTHER TARGET SITES	China P.R. - (CN)	200680021872.X	27-06-06	101198367	01-12-10
099599.021823	INACTIVE - (I)	APPARATUS AND METHOD TO INJECT FLUIDS INTO BONE MARROW AND OTHER TARGET SITES	China P.R. - (CN)	201010144512.7	27-06-06		
099599.021824	INACTIVE - (I)	APPARATUS AND METHOD TO INJECT FLUIDS INTO BONE MARROW AND OTHER TARGET SITES	China P.R. - (CN)	201010144517.X	27-06-06		
099599.021825	INACTIVE - (I)	APPARATUS AND METHOD TO INJECT FLUIDS INTO BONE MARROW AND OTHER TARGET SITES	China P.R. - (CN)	201010144520.1	27-06-06		
099599.021826	GRANTED - (G)	APPARATUS TO INJECT FLUIDS INTO BONE MARROW	European Patent Convention - (EP)	06774203.1	27-06-06	1919538	14-06-17
099599.021827	GRANTED - (G)	APPARATUS TO INJECT FLUIDS INTO BONE MARROW	Great Britain - (GB)	06774203.1	27-06-06	602006052792.6	14-06-17
099599.021828	GRANTED - (G)	APPARATUS TO INJECT FLUIDS INTO BONE MARROW	France - (FR)	06774203.1	27-06-06	1919538	14-06-17
099599.021829	GRANTED - (G)	APPARATUS TO INJECT FLUIDS INTO BONE MARROW	Germany - (DE)	06774203.1	27-06-06	602006052792.6	14-06-17
099599.021830	GRANTED - (G)	APPARATUS TO INJECT FLUIDS INTO BONE MARROW	Italy - (IT)	06774203.1	27-06-06	1919538	14-06-17
099599.021831	FILED - (F)	Injecting Fluids into Bone - D1	European Patent Convention - (EP)	17169553.9	27-06-06		
099599.021832	FILED - (F)	Apparatus and Method to Inject Fluids Into Bone Marrow and Other Target Sites	Canada - (CA)	3023005	27-06-06		

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099599.021840	INACTIVE - (I)	INTRAOSSEOUS DIVICE AND METHODS FOR ACCESSING BONE MARROW IN THE STERNUM AND OTHER TARGET AREAS	Patent Cooperation Treaty - (WO)	PCT/US2008/050346	07-01-08		
099599.021841	GRANTED - (G)	INTRAOSSEOUS DIVICE AND METHODS FOR ACCESSING BONE MARROW IN THE STERNUM AND OTHER TARGET AREAS	China P.R. - (CN)	200880000022.0	07-01-08	101541370	20-11-13
099599.021860	INACTIVE - (I)	MANUAL INTEROSSEIOUS DEVICE	United States - (US)	60/539,171	26-01-04		
099599.021861	INACTIVE - (I)	IMPACT-DRIVEN INTRAOSSEOUS NEEDLE	United States - (US)	60/547,868	26-02-04		
099599.021862	GRANTED - (G)	APPARATUS AND METHOD TO ACCESS BONE MARROW	United States - (US)	10/449,476	30-05-03	7,699,850	20-04-10
099599.021863	GRANTED - (G)	APPARATUS AND METHOD TO ACCESS BONE MARROW	United States - (US)	11/253,467	19-10-05	8,876,826	04-11-14
099599.021864	GRANTED - (G)	Apparatus and Method to Access Bone Marrow	United States - (US)	14/532,635	04-11-14	10,456,149	29-10-19
099599.021865	GRANTED - (G)	APPARATUS AND METHOD TO ACCESS BONE MARROW	United States - (US)	11/253,959	19-10-05	8,506,568	13-08-13
099599.021866	GRANTED - (G)	APPARATUS AND METHOD TO ACCESS BONE MARROW	United States - (US)	13/966,104	13-08-13	9,314,270	19-04-16
099599.021867	INACTIVE - (I)	MANUAL INTEROSSEIOUS DEVICE	Patent Cooperation Treaty - (WO)	PCT/US2005/002484	25-01-05		
099599.021868	GRANTED - (G)	MANUAL INTEROSSEIOUS DEVICE	Canada - (CA)	2551724	25-01-05	2551724	17-06-14
099599.021869	INACTIVE - (I)	MANUAL INTEROSSEIOUS DEVICE	Canada - (CA)	2850801	25-01-05		
099599.021870	GRANTED - (G)	MANUAL INTEROSSEIOUS DEVICE	China P.R. - (CN)	200580003261.8	25-01-05	1913833	09-06-10
099599.021871	GRANTED - (G)	MANUAL INTEROSSEIOUS DEVICE	China P.R. - (CN)	200910006631.3	25-01-05	101474088	14-12-11
099599.021872	GRANTED - (G)	MANUAL INTEROSSEIOUS DEVICE	China P.R. - (CN)	200910138130.0	25-01-05	101536926	18-07-12
099599.021873	GRANTED - (G)	MANUAL INTEROSSEIOUS DEVICE	China P.R. - (CN)	201210169546.0	25-01-05	102670265	17-08-16
099599.021874	INACTIVE - (I)	MANUAL INTEROSSEIOUS DEVICE	Hong Kong - (HK)	13103415.6	25-01-05		

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099599.021875	GRANTED - (G)	MANUAL INTEROSSEIOUS DEVICE	European Patent Convention - (EP)	05712091.7	25-01-05	1708621	18-03-09
099599.021876	GRANTED - (G)	MANUAL INTEROSSEIOUS DEVICE	Germany - (DE)	05712091.7	25-01-05	1708621	18-03-09
099599.021877	GRANTED - (G)	MANUAL INTEROSSEIOUS DEVICE	France - (FR)	05712091.7	25-01-05	1708621	18-03-09
099599.021878	GRANTED - (G)	MANUAL INTEROSSEIOUS DEVICE	Great Britain - (GB)	05712091.7	25-01-05	1708621	18-03-09
099599.021879	INACTIVE - (I)	MANUAL INTEROSSEIOUS DEVICE	Ireland - (IE)	05712091.7	25-01-05	1708621	18-03-09
099599.021880	GRANTED - (G)	MANUAL INTEROSSEIOUS DEVICE	Italy - (IT)	05712091.7	25-01-05	1708621	18-03-09
099599.021881	GRANTED - (G)	MANUAL INTEROSSEIOUS DEVICE	European Patent Convention - (EP)	08158699.2	25-01-05	1967142	25-08-10
099599.021882	GRANTED - (G)	MANUAL INTEROSSEIOUS DEVICE	Germany - (DE)	08158699.2	25-01-05	1967142	25-08-10
099599.021883	INACTIVE - (I)	MANUAL INTEROSSEIOUS DEVICE	Spain - (ES)	08158699.2	25-01-05	1967142	18-03-09
099599.021884	GRANTED - (G)	MANUAL INTEROSSEIOUS DEVICE	France - (FR)	08158699.2	25-01-05	1967142	25-08-10
099599.021885	GRANTED - (G)	MANUAL INTEROSSEIOUS DEVICE	Great Britain - (GB)	08158699.2	25-01-05	1967142	25-08-10
099599.021886	GRANTED - (G)	MANUAL INTEROSSEIOUS DEVICE	Italy - (IT)	08158699.2	25-01-05	1967142	25-08-10
099599.021887	INACTIVE - (I)	MANUAL INTEROSSEIOUS DEVICE	Netherland - (NL)	08158699.2	25-01-05	1967142	25-08-10
099599.021888	GRANTED - (G)	MANUAL INTEROSSEOUS DEVICE (Div II)	European Patent Convention - (EP)	09150973.7	25-01-05	2098181	19-10-16
099599.021889	GRANTED - (G)	MANUAL INTEROSSEOUS DEVICE	European Patent Convention - (EP)	10153350.3	25-01-05	2177171	22-08-12
099599.021890	INACTIVE - (I)	MANUAL INTEROSSEOUS DEVICE	Austria - (AT)	10153350.3	25-01-05	2177171	22-08-12
099599.021891	INACTIVE - (I)	MANUAL INTEROSSEOUS DEVICE	Belgium - (BE)	10153350.3	25-01-05	2177171	22-08-12
099599.021892	INACTIVE - (I)	MANUAL INTEROSSEOUS DEVICE	Switzerland - (CH)	10153350.3	25-01-05	2177171	22-08-12
099599.021893	GRANTED - (G)	MANUAL INTEROSSEOUS DEVICE	Germany - (DE)	10153350.3	25-01-05	2177171	22-08-12
099599.021894	INACTIVE - (I)	MANUAL INTEROSSEOUS DEVICE	Denmark - (DK)	10153350.3	25-01-05	2177171	22-08-12
099599.021895	INACTIVE - (I)	MANUAL INTEROSSEOUS DEVICE	Spain - (ES)	10153350.3	25-01-05	2177171	22-08-12
099599.021896	INACTIVE - (I)	MANUAL INTEROSSEOUS DEVICE	Finland - (FI)	10153350.3	25-01-05	2177171	22-08-12
099599.021897	GRANTED - (G)	MANUAL INTEROSSEOUS DEVICE	France - (FR)	10153350.3	25-01-05	2177171	22-08-12
099599.021898	GRANTED - (G)	MANUAL INTEROSSEOUS DEVICE	Great Britain - (GB)	10153350.3	25-01-05	2177171	22-08-12
099599.021899	INACTIVE - (I)	MANUAL INTEROSSEOUS DEVICE	Ireland - (IE)	10153350.3	25-01-05	2177171	22-08-12
099599.021900	GRANTED - (G)	MANUAL INTEROSSEOUS DEVICE	Italy - (IT)	10153350.3	25-01-05	2177171	22-08-12

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099599.021901	INACTIVE - (I)	MANUAL INTEROSSEOUS DEVICE	Netherland - (NL)	10153350.3	25-01-05	2177171	22-08-12
099599.021902	INACTIVE - (I)	MANUAL INTEROSSEOUS DEVICE	Poland - (PL)	10153350.3	25-01-05	2177171	22-08-12
099599.021903	INACTIVE - (I)	MANUAL INTEROSSEOUS DEVICE	Sweden - (SE)	10153350.3	25-01-05	2177171	22-08-12
099599.021904	INACTIVE - (I)	MANUAL INTEROSSEOUS DEVICE	Turkey - (TR)	10153350.3	25-01-05	2177171	22-08-12
099599.021905	INACTIVE - (I)	APPARATUS FOR PENETRATING A BONE AND PROVIDING ACCESS TO ASSOCIATED BONE MARROW	Taiwan - (TW)	94102179	25-01-05	I341738	11-05-11
099599.021906	GRANTED - (G)	Manual Interosseious Device	Great Britain - (GB)	09150973.7	25-01-05	2098181	19-10-16
099599.021907	GRANTED - (G)	Manual Interosseious Device	Germany - (DE)	09150973.7	25-01-05	602005050501.6	19-10-16
099599.021908	GRANTED - (G)	Manual Interosseious Device	France - (FR)	09150973.7	25-01-05	2098181	19-10-16
099599.021909	GRANTED - (G)	Manual Interosseious Device	Italy - (IT)	09150973.7	25-01-05	2098181	19-10-16
099599.021910	INACTIVE - (I)	Manual Interosseious Device	Spain - (ES)	09150973.7	25-01-05	2098181	19-10-16
099599.021911	INACTIVE - (I)	Manual Interosseious Device	Netherland - (NL)	09150973.7	25-01-05	2098181	19-10-16
099599.021920	GRANTED - (G)	MANUAL INTRAOSSEOUS DEVICE	United States - (US)	11/042,912	25-01-05	8,641,715	04-02-14
099599.021921	GRANTED - (G)	IMPACT-DRIVEN INTRAOSSEOUS NEEDLE	United States - (US)	11/064,156	23-02-05	7,815,642	19-10-10
099599.021922	GRANTED - (G)	IMPACT-DRIVEN INTRAOSSEOUS NEEDLE	United States - (US)	12/905,659	15-10-10	8,870,872	28-10-14
099599.021923	INACTIVE - (I)	IMPACT-DRIVEN INTRAOSSEOUS NEEDLE	United States - (US)	14/526,234	28-10-14		
099599.021924	GRANTED - (G)	MANUAL INTRAOSSEOUS DEVICE	United States - (US)	12/787,228	25-05-10	9,433,400	06-09-16

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099599.021925	GRANTED - (G)	Penetrator Assembly For Accessing Bone Marrow	United States - (US)	15/255,938	02-09-16	10,492,830	03-12-19
099599.021926	DOCKETED - (D)	Penetrator Assembly For Accessing Bone Marrow	United States - (US)				
099599.021940	GRANTED - (G)	POWERED DRIVERS, INTRAOSSEOUS DEVICES AND METHODS TO ACCESS BONE MARROW	United States - (US)	12/061,944	03-04-08	9,451,968	27-09-16
099599.021942	GRANTED - (G)	POWERED DRIVER	United States - (US)	12/025,580	04-02-08	9,504,477	29-11-16
099599.021943	GRANTED - (G)	Powered Driver	United States - (US)	13/609,001	10-09-12	10,052,111	21-08-18
099599.021944	FILED - (F)	Powered Drivers, Intraosseous Devices and Methods to Access Bone Marrow	United States - (US)	15/272,647	22-09-16		
099599.021945	FILED - (F)	Powered Driver	United States - (US)	16/105,541	20-08-18		
099599.021947	INACTIVE - (I)	Powered Driver	United States - (US)	16/105,818	20-08-18		
099599.021960	INACTIVE - (I)	POWERED DRIVER	United States - (US)	60/910,147	04-04-07		
099599.021961	INACTIVE - (I)	POWERED DRIVER	Patent Cooperation Treaty - (WO)	PCT/US2008/052943	04-02-08		
099599.021962	GRANTED - (G)	POWERED DRIVER	China P.R. - (CN)	200880000182.5	04-02-08	101541253	23-04-14
099599.021963	INACTIVE - (I)	POWERED DRIVER	China P.R. - (CN)	201410112780.9	04-04-08	ZL201410112780.9	18-05-16
099599.021964	INACTIVE - (I)	POWERED DRIVER	Hong Kong - (HK)	15101367.6	04-04-07		
099599.021965	GRANTED - (G)	POWERED DRIVER	European Patent Convention - (EP)	08799753.2	04-02-08	2131751	25-05-16
099599.021966	GRANTED - (G)	Powered Driver	Germany - (DE)	08799753.2	04-02-08	602008044438.4	25-05-16
099599.021967	INACTIVE - (I)	Powered Driver	Spain - (ES)	08799753.2	04-02-08	2131751	25-05-16
099599.021968	GRANTED - (G)	Powered Driver	France - (FR)	08799753.2	04-02-08	2131751	25-05-16
099599.021969	GRANTED - (G)	Powered Driver	Great Britain - (GB)	08799753.2	04-02-08	2131751	25-05-16
099599.021970	GRANTED - (G)	Powered Driver	Italy - (IT)	08799753.2	04-02-08	2131751	25-05-16
099599.021971	INACTIVE - (I)	Powered Driver	Netherland - (NL)	08799753.2	04-02-08	2131751	25-05-16
099599.021972	GRANTED - (G)	Powered Driver	Germany - (DE)	08799753.2	04-02-08	2131751	25-05-16
099599.021980	INACTIVE - (I)	SMART PARAMEDIC	United States - (US)	60/938,501	17-05-07		

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099599.021981	GRANTED - (G)	METHOD AND APPARATUS TO MONITOR PATIENTS AND TREAT WITH INTRAOSSEOUS FLUIDS	United States - (US)	12/120,992	15-05-08	7,899,528	01-03-11
099599.021982	INACTIVE - (I)	METHOD AND APPARATUS TO MONITOR PATIENTS AND TREAT WITH INTRAOSSEOUS FLUIDS	United States - (US)	13/038,088	01-03-11	8,812,101	19-08-14
099599.021983	INACTIVE - (I)	METHOD AND APPARATUS TO MONITOR PATIENTS AND TREAT WITH INTRAOSSEOUS FLUIDS	United States - (US)	14/463,333	19-08-14		
099599.021984	INACTIVE - (I)	METHOD AND APPARATUS TO MONITOR PATIENTS AND TREAT WITH INTRAOSSEOUS FLUIDS	Patent Cooperation Treaty - (WO)	PCT/US2008/063688	15-05-08		
099599.021985	INACTIVE - (I)	METHOD AND APPARATUS TO MONITOR PATIENTS AND TREAT WITH INTRAOSSEOUS FLUIDS	China P.R. - (CN)	200880021465.8	15-05-08		
099599.021986	GRANTED - (G)	METHOD AND APPARATUS TO MONITOR PATIENTS AND TREAT WITH INTRAOSSEOUS FLUIDS	European Patent Convention - (EP)	08769475.8	15-05-08	2144662	14-10-15
099599.021987	INACTIVE - (I)	Method and Apparatus to Monitor Patients and Treat with Intraosseous Fluids	European Patent Convention - (EP)	15189421.9	15-05-08		
099599.021988	GRANTED - (G)	Method and Apparatus to Monitor Patients and Treat with Intraosseous Fluids	France - (FR)	08769475.8	15-05-08	2144662	14-10-15
099599.021989	GRANTED - (G)	Method and Apparatus to Monitor Patients and Treat with Intraosseous Fluids	Great Britain - (GB)	08769475.8	15-05-08	2144662	14-10-15
099599.021990	GRANTED - (G)	Method and Apparatus to Monitor Patients and Treat with Intraosseous Fluids	Italy - (IT)	08769475.8	15-05-08	2144662	14-10-15

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099599.021991	GRANTED - (G)	Method and Apparatus to Monitor Patients and Treat with Intraosseous Fluids	Germany - (DE)	08769475.8	15-05-08	2144662	14-10-15
099599.022000	INACTIVE - (I)	HIGH PRESSURE INTRAOSSEOUS BAG AND METHOD	United States - (US)	12/596,791	19-04-10		
099599.022001	INACTIVE - (I)	HIGH PRESSURE INTRAOSSEOUS BAG AND METHOD	United States - (US)	60/913,680	24-04-07		
099599.022002	INACTIVE - (I)	HIGH PRESSURE INTRAOSSEOUS BAG AND METHOD	Patent Cooperation Treaty - (WO)	PCT/US2008/061258	23-04-08		
099599.022020	INACTIVE - (I)	POWERED DRIVER INTRAOSSEOUS AND METHODS TO ACCESS BONE MARROW	United States - (US)	60/910,122	04-04-07		
099599.022021	INACTIVE - (I)	POWERED DRIVER INTRAOSSEOUS AND METHODS TO ACCESS BONE MARROW	Patent Cooperation Treaty - (WO)	PCT/US2008/059206	03-04-08		
099599.022040	INACTIVE - (I)	APPARATUS AND METHODS TO COMMUNICATE FLUIDS AND/OR SUPPORT INTRAOSSEOUS DEVICES	United States - (US)	60/863,521	30-10-06		
099599.022041	GRANTED - (G)	APPARATUS AND METHODS TO COMMUNICATE FLUIDS AND/OR SUPPORT INTRAOSSEOUS DEVICES	United States - (US)	11/619,390	03-01-07	8,974,410	10-03-15
099599.022042	GRANTED - (G)	Apparatus and Methods to Communicate Fluids and/or Support Intraosseous Devices	United States - (US)	14/643,839	10-03-15	10,258,783	16-04-19
099599.022043	INACTIVE - (I)	INTRAOSSEOUS DEIVE SUPPORTS AND FLUID COMMUNICATION MEANS	Patent Cooperation Treaty - (WO)	PCT/US2007/072209	27-06-07		
099599.022044	GRANTED - (G)	Intraosseous Device Supports and Fluid Communication Means	China P.R. - (CN)	200780000585.5	27-06-07	101360526	17-08-16

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099599.022045	INACTIVE - (I)	APPARATUS AND METHODS TO COMMUNICATE FLUIDS AND/OR SUPPORT INTRAOSSEOUS DEVICES	Taiwan - (TW)	096140082	27-06-07	I478743	01-04-15
099599.022046	FILED - (F)	Apparatus and Methods to Communicate Fluids and/or Support Intraosseous Devices	United States - (US)	16/372,056	01-04-19		
099599.022140	INACTIVE - (I)	TISSUE PENETRATING DEVICE AND METHODS FOR USING SAME	United States - (US)	09/033,105	02-03-98	6,183,442	06-02-01
099599.022141	INACTIVE - (I)	TISSUE PENETRATING DEVICE AND METHODS FOR USING SAME	United States - (US)	09/757,122	09-01-01	6,527,778	04-03-03
099599.022142	GRANTED - (G)	TISSUE PENETRATING DEVICE AND METHODS FOR USING SAME	United States - (US)	10/266,452	08-10-02	7,226,450	05-06-07
099599.022160	GRANTED - (G)	INTRAOSSEOUS-NEEDLE STABILIZER AND METHODS	United States - (US)	13/576,943	24-12-12	9,839,740	12-12-17
099599.022161	INACTIVE - (I)	INTRAOSSEOUS-NEEDLE STABILIZER AND METHODS	Patent Cooperation Treaty - (WO)	PCT/US2011/023496	02-02-11		
099599.022162	FILED - (F)	Intraosseous-Needle Stabilizer And Methods	United States - (US)	15/824,042	28-11-17		
099599.022180	INACTIVE - (I)	STERNAL LOCATORS AND ASSOCIATED SYSTEMS AND METHODS	United States - (US)	61/506,316	11-07-11		
099599.022181	GRANTED - (G)	Sternal Locators and Associated Systems and Methods	United States - (US)	13/546,894	11-07-12	9,730,729	15-08-17
099599.022182	INACTIVE - (I)	STERNAL LOCATORS AND ASSOCIATED SYSTEMS AND METHODS	Patent Cooperation Treaty - (WO)	PCT/US2012/046294	11-07-12		
099599.022183	INACTIVE - (I)	STERNAL LOCATORS AND ASSOCIATED SYSTEMS AND METHODS	Brazil - (BR)	BR112014000796-9	11-07-12		
099599.022184	GRANTED - (G)	STERNAL LOCATORS AND ASSOCIATED SYSTEMS AND METHODS	China P.R. - (CN)	201280043008.5	11-07-12	104080412	14-11-17

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099599.022185	INACTIVE - (I)	STERNAL LOCATORS AND ASSOCIATED SYSTEMS AND METHODS	Hong Kong - (HK)	15103311.9	11-07-12		
099599.022186	GRANTED - (G)	STERNAL LOCATORS AND ASSOCIATED SYSTEMS AND METHODS	European Patent Convention - (EP)	12811090.5	11-07-12	2731521	11-07-18
099599.022187	INACTIVE - (I)	STERNAL LOCATORS AND ASSOCIATED SYSTEMS AND METHODS	Israel - (IL)	230410	11-07-12		
099599.022188	GRANTED - (G)	STERNAL LOCATORS AND ASSOCIATED SYSTEMS AND METHODS	Japan - (JP)	2014-520284	11-07-12	6126091	14-04-17
099599.022189	INACTIVE - (I)	STERNAL LOCATORS AND ASSOCIATED SYSTEMS AND METHODS	Russian Federation - (RU)	2014104585	11-07-12		
099599.022190	GRANTED - (G)	Sternal Locators and Associated Systems and Methods	Japan - (JP)	2017-075764	11-07-12	6417441	12-10-18
099599.022191	FILED - (F)	Sternal Locators and Associated Systems and Methods	United States - (US)	15/643,707	07-07-17		
099599.022192	FILED - (F)	Sternal Locators and Associated Systems and Methods	China P.R. - (CN)	201710931617.9	11-07-12		
099599.022193	GRANTED - (G)	Sternal Locators And Associated Systems And Methods	Germany - (DE)	12811090.5	11-07-12	602012048435.7	11-07-18
099599.022194	GRANTED - (G)	Sternal Locators And Associated Systems And Methods	Italy - (IT)	502018000023316	11-07-12	2731521	11-07-18
099599.022195	GRANTED - (G)	Sternal Locators And Associated Systems And Methods	France - (FR)	12811090.5	11-07-12	2731521	11-07-18
099599.022196	GRANTED - (G)	Sternal Locators And Associated Systems And Methods	Great Britain - (GB)	12811090.5	11-07-12	2731521	11-07-18
099599.022197	FILED - (F)	Sternal Locators and Associated Systems and Methods	Japan - (JP)	2018-189623	11-07-12		

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099599.022240	GRANTED - (G)	Intraosseous Device Couplers, Drivers, Kits, and Methods	United States - (US)	13/835,383	15-03-13	9,883,853	06-02-18
099599.022241	INACTIVE - (I)	INTRAOSSEOUS DEVICE COUPLERS, DRIVERS, KITS, AND METHODS	Patent Cooperation Treaty - (WO)	PCT/US2014/028915	14-03-14		
099599.022242	GRANTED - (G)	INTRAOSSEOUS DEVICE COUPLERS, DRIVERS,KITS, AND METHODS	European Patent Convention - (EP)	14762340.9	14-03-14	2967650	07-08-19
099599.022243	INACTIVE - (I)	Intraosseous Device Couplers, Drivers, Kits, and Methods	Canada - (CA)	2907217	14-03-14		
099599.022244	INACTIVE - (I)	Intraosseous Device Couplers, Drivers, Kits, and Methods	Japan - (JP)	2016-502937	14-03-14		
099599.022245	FILED - (F)	Intraosseous Device Couplers, Drivers, Kits, and Methods	United States - (US)	15/858,786	29-12-17		
099599.022246	GRANTED - (G)	Intraosseous Device Couplers, Drivers, Kits and Methods	Germany - (DE)	14762340.9	14-03-14	602014051336.0	07-08-19
099599.022247	GRANTED - (G)	Intraosseous Device Couplers, Drivers, Kits and Methods	France - (FR)	14762340.9	14-03-14	2967650	07-08-19
099599.022248	GRANTED - (G)	Intraosseous Device Couplers, Drivers, Kits and Methods	Great Britain - (GB)	14762340.9	14-03-14	2967650	07-08-19
099599.022249	FILED - (F)	Intraosseous Device Couplers, Drivers, Kits, and Methods	European Patent Convention - (EP)	19189628.1	14-03-14		
099599.022260	GRANTED - (G)	DRIVERS AND DRIVE SYSTEM	United States - (US)	13/835,624	15-03-13	9,615,816	11-04-17
099599.022261	INACTIVE - (I)	Drivers and Drive System	Patent Cooperation Treaty - (WO)	PCT/US2014/028594	14-03-14		
099599.022262	FILED - (F)	DRIVERS AND DRIVE SYSTEMS	European Patent Convention - (EP)	14765433.9	14-03-14		
099599.022263	GRANTED - (G)	POWERED DRIVER FOR INTRAOSSEOUS DEVICES	Canada - (CA)	2907193	14-03-14	2907193	01-10-19
099599.022264	GRANTED - (G)	Drivers and Drive Systems	Japan - (JP)	2016-502841	14-03-14	6500007	22-03-19
099599.022265	FILED - (F)	Drivers and Drive Systems	United States - (US)	15/466,309	22-03-17		
099599.022266	FILED - (F)	Drivers and Drive Systems	Japan - (JP)	2018-202396	14-03-14		

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099599.022267	FILED - (F)	Powered Driver for Intraosseous Devices	Canada - (CA)	3052556	14-03-14		
099599.022280	INACTIVE - (I)	CONTAINMENT ASSEMBLIES, METHODS, AND KITS	United States - (US)	13/836,019	15-03-13		
099599.022281	INACTIVE - (I)	Containment Assemblies. Mathods and Kits	Patent Cooperation Treaty - (WO)	PCT/US2014/029299	14-03-14		
099599.022282	FILED - (F)	CONTAINMENT ASSEMBLIES, METHODS AND KITS	European Patent Convention - (EP)	14763134.5	14-03-14		
099599.022283	INACTIVE - (I)	Containment Assemblies, Mathods, and Kits	Canada - (CA)	2907205	14-03-14		
099599.022284	INACTIVE - (I)	Containment Assemblies. Mathods and Kits	Japan - (JP)	2016-503054	14-03-14		
099599.022300	GRANTED - (G)	DRIVER ASSEMBLIES, DRIVERS, INTRAOSSEOUS DEVICES, AND METHODS FOR DETERMINING VOLTAGES AND/OR IMPEDANCES IN BIOLOGICAL MATERIAL	United States - (US)	13/836,548	15-03-13	10,064,630	04-09-18
099599.022301	INACTIVE - (I)	Driver Assemblies, Drivers, Intraosseous Devices, and Methods for Determining Voltages and/or Impedances in Biological Material	Patent Cooperation Treaty - (WO)	PCT/US2014/029356	14-03-14		
099599.022302	FILED - (F)	Driver Assemblies, Drivers, Intraosseous Devices, and Methods for Determining Voltages and/or Impedances in Biological Material	European Patent Convention - (EP)	14763900.9	14-03-14		
099599.022303	FILED - (F)	DRIVER ASSEMBLIES, DRIVERS, INTRAOSSEOUS DEVICES, AND METHODS FOR DETERMINING VOLTAGES AND/OR IMPEDANCES IN BIOLOGICAL MATERIAL	Canada - (CA)	2907252	14-03-14		

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099599.022304	FILED - (F)	Driver Assemblies, Drivers, Intraosseous Devices, and Methods for Determining Voltages and/or Impedances in Biological Material	Japan - (JP)	2016-503071	14-03-14		
099599.022305	FILED - (F)	Driver Assemblies, Drivers, Intraosseous Devices, And Methods For Determining Voltages And/Or Impedances In Biological Material	United States - (US)	16/110,623	23-08-18		
099599.022306	FILED - (F)	Driver Assemblies, Drivers, Intraosseous Devices, and Methods for Determining Voltages and/or Impedances in Biological Material	Japan - (JP)	2018-219418	14-03-14		
099599.022320	INACTIVE - (I)	POWERED DRIVER ACTUATED BY FORCE ON DRIVESHAFT AND RELATED KITS, COMPONENTS, AND METHODS	United States - (US)	61/940,741	17-02-14		
099599.022321	INACTIVE - (I)	POWERED DRIVER ACTUATED BY FORCE ON DRIVESHAFT AND RELATED KITS, COMPONENTS, AND METHODS	United States - (US)	61/945,325	27-02-14		
099599.022322	GRANTED - (G)	Powered Driver Actuated By Force On Driveshaft And Related Kits, Components, And Methods	United States - (US)	14/624,219	17-02-15	10,092,320	09-10-18
099599.022323	INACTIVE - (I)	POWERED DRIVER ACTUATED BY FORCE ON DRIVESHAFT AND RELATED KITS, COMPONENTS, AND METHODS	Patent Cooperation Treaty - (WO)	PCT/US2015/016119	17-02-15		
099599.022324	GRANTED - (G)	Powered Driver Actuated By Force On Driveshaft And Related Kits, Components, And Methods	China P.R. - (CN)	201580019471.X	17-02-15	106470801	12-07-19

Docket Number	Status	Title	Country	Application Number	Filing Date	Patent Number	Grant Date
099599.022325	FILED - (F)	Powered Driver Actuated By Force On Driveshaft And Related Kits, Components, And Methods	Japan - (JP)	2016-552558	17-02-15		
099599.022326	GRANTED - (G)	Powered Driver Actuated By Force On Driveshaft And Related Kits, Components, And Methods	European Patent Convention - (EP)	15748939.4	17-02-15	3107692	21-11-18
099599.022327	FILED - (F)	Powered Driver Actuated by Force on Driveshaft and Related Kits, Components, and Methods	United States - (US)	16/135,161	19-09-18		
099599.022328	GRANTED - (G)	Powered Driver Actuated By Force On Driveshaft And Related Kits, Components, And Methods	Germany - (DE)	15748939.4	17-02-15	3107692	21-11-18
099599.022329	GRANTED - (G)	Powered Driver Actuated By Force On Driveshaft And Related Kits, Components, And Methods	France - (FR)	15748939.4	17-02-15	3107692	21-11-18
099599.022330	GRANTED - (G)	Powered Driver Actuated By Force On Driveshaft And Related Kits, Components, And Methods	Italy - (IT)	15748939.4	17-02-15	3107692	21-11-18
099599.022331	GRANTED - (G)	Powered Driver Actuated By Force On Driveshaft And Related Kits, Components, And Methods	Great Britain - (GB)	15748939.4	17-02-15	3107692	21-11-18
099599.022332	FILED - (F)	Powered Driver Actuated By Force On Driveshaft And Related Kits, Components, And Methods	European Patent Convention - (EP)	18196028.7	17-02-15		
099599.022334	FILED - (F)	Powered Driver Actuated By Force On Driveshaft And Related Kits, Components, And Methods	China P.R. - (CN)	201910527327.7	17-02-15		
099599.022360	INACTIVE - (I)	PUMPING APPARATUSES AND METHODS FOR FLUID INFUSION	United States - (US)	62/042,783	27-08-14		

Docket Number	Status	Title	Country	Application Number	Filing Date	Patent Number	Grant Date
099599.022361	INACTIVE - (I)	PUMPING APPARATUSES AND METHODS FOR FLUID INFUSION	Patent Cooperation Treaty - (WO)	PCT/US2015/046655	25-08-15		
099599.022363	INACTIVE - (I)	Infusing Devices, Systems, And Methods	United States - (US)	62/232,316	24-09-15		
099599.022364	FILED - (F)	Infusing Devices, Systems, And Methods	Patent Cooperation Treaty - (WO)	PCT/US2016/052585	20-09-16		
099599.022365	FILED - (F)	Pumping Apparatuses and Methods for Fluid Infusion	United States - (US)	15/506,491	24-02-17		
099599.022366	FILED - (F)	Infusing Devices, Systems, And Methods	United States - (US)	15/763,041	23-03-18		
099599.022367	FILED - (F)	Infusion Devices, Systems, and Methods	European Patent Convention - (EP)	16849407.8	20-09-16		
099599.022380	FILED - (F)	Apparatus to Access Bone Marrow	United States - (US)	15/064,175	08-03-16		
099599.022440	INACTIVE - (I)	Apparatus and Method to Provide Emergency Access to Bone Marrow	United States - (US)	15/211,008	15-07-16		
099599.022460	FILED - (F)	Manual Interosseous Device (Div 2.1)	European Patent Convention - (EP)	16187739.4	25-01-05		
099599.022480	INACTIVE - (I)	Powered Intraosseous Driver with Protective Member, and Related Kits, Components, and Methods	United States - (US)	62/556,953	11-09-17		
099599.022482	FILED - (F)	Powered Introsseous Driver With Protective Member, And Related Kits, Components, And Methods	Patent Cooperation Treaty - (WO)	PCT/IB2018/056893	10-09-18		
099599.022500	INACTIVE - (I)	Intraosseous Access Device And Method To Access Bone Marrow	United States - (US)	62/670,691	11-05-18		

Docket Number	Status	Title	Country	Application Number	Filing Date	Patent Number	Grant Date
099599.022501	FILED - (F)	Intraosseous Access Device And Method To Access Bone Marrow	Patent Cooperation Treaty - (WO)	PCT/IB2019/053900	10-05-19		
099599.022520	INACTIVE - (I)	Pull Chord Manually Driven Intraosseous Injection Devices And Methods	United States - (US)	62/772,241	28-11-18		
099599.022521	FILED - (F)	Pull Chord Manually Driven Intraosseous Injection Devices And Methods	Patent Cooperation Treaty - (WO)	PCT/IB2019/060250	28-11-18		
099599.022540	FILED - (F)	Hand Crank Manually Driven Intraosseous Injection Devices And Methods	United States - (US)	62/788.226	04-01-19		
099599.022560	FILED - (F)	Apparatus and Method to Access Bone Marrow	United States - (US)	16/664,282	25-10-19		
044781.26240	FILED - (F)	Bone-Penetrating Intraosseous Access Device	United States - (US)	62/865177	22-06-19		
044781.26260	FILED - (F)	Intraosseous Access Device and Locator Assembly	United States - (US)	62/865170	22-06-19		
044781.26280	FILED - (F)	Bone-Penetrating Manual Driver and Stabilizer Assembly for Intraosseous Access	United States - (US)	62/865175	22-06-19		

Schedule 3
Vascular Solutions Trademark Portfolio

Trademarks					
Mark	**Country**	**Application No.**	**Registration No.**	**Reg. Date**	**Status**
ACOLYSIS	U.S.	75-256,292	2517658	12/11/2001	Registered
AUTO-FILL	U.S.	78-329,341	2894004	10/12/2004	Registered
BANDIT	U.S.	87-625,101	5618758	11/27/2018	Registered
DRAINER	U.S.	85-066,819	3972115	5/31/2011	Registered
D-STAT	U.S.	78-102,841	2754442	8/19/2003	Registered
EZPLAZ	Madrid protocol	1455699	1455699	2/12/2019	Registered
EZPLAZ	European Community, United Kingdom (via Madrid protocol)	1455699	1455699	2/12/2019	Registered
FLUENT	U.S.	86-654,688	5129777	1/24/2017	Registered
GREBSET	U.S.	77-840,407	3790069	5/18/2010	Registered
GUIDELINER	U.S.	77-706,364	3797195	6/1/2010	Registered
GUIDELINER	Japan, European Community, Norway, Switzerland, United Kingdom (via Madrid protocol)	1399698	1399698	1/25/2018	Registered
GUIDELINER	Canada	1,876,752	1,876,752	9/5/2019	Registered
GUIDELINER	China (via Madrid protocol)	1,399,698			Pending
LANGSTON	U.S.	78-455,490	3024795	12/6/2005	Registered
LANGSTON	Japan, European Community, Norway, Switzerland, United Kingdom (via Madrid protocol)	1399699	1399699	1/25/2018	Registered
LANGSTON	Canada	1,876,762			Pending
MINNIE	U.S.	77-818,971	3752325	2/23/2010	Registered
OCTANE	U.S.	87-037,941	5551287	8/28/2018	Registered
PIGGYBACK	U.S.	77-840,531	3858113	10/5/2010	Registered

Trademarks					
Mark	**Country**	**Application No.**	**Registration No.**	**Reg. Date**	**Status**
PRONTO	U.S.	78-181,211	3353155	12/11/2007	Registered
RAIDER	U.S.	87-625,094	5562562	9/11/2018	Registered
REPLAS	U.S.	86-604,593	5256745	8/1/2017	Registered
RINGER	European Community	17997580	17997580	5/7/2019	Registered
SMARTNEEDLE	U.S.	75-620,674	2568826	5/14/2002	Registered
SMARTNEEDLE	Canada	1022096	TMA574650	1/29/2003	Registered
SPECTRE	U.S.	87-207,092	5,267,675	8/15/2017	Registered
THROMBI-GEL (Stylized)	U.S.	77-450,693	3,632,771	6/2/2009	Registered
THROMBIX	U.S.	78-139,033	3,032,755	12/20/2005	Registered
TURNPIKE	U.S.	86-327,454	4,721,667	4/14/2015	Registered
TURNPIKE	Japan, European Community, Norway, Switzerland, United Kingdom (via Madrid protocol)	1405113	1405113	1/25/2018	Registered
TURNPIKE	Canada	1,876,753	1,876,753	9/5/2019	Registered
TRAPLINER	U.S.	86-830,610	5,200,901	5/9/2017	Registered
TWIN-PASS	U.S.	78-602,796	3,122,103	7/25/2006	Registered
TWIN-PASS	Japan, European Community, United Kingdom (via Madrid protocol)	1399596	1399596	1/25/2018	Registered
TWIN-PASS	Canada	1,876,754	1,876,754	9/5/2019	Registered
TWIN-PASS	Switzerland (via Madrid protocol)	1399596			Pending
TWIN-PASS	Norway (via Madrid protocol)	1399596			Pending
TWIN-PASS TORQUE	Canada	1,876,761	1,876,761	9/5/2019	Registered
VARI-LASE	U.S.	78-217,901	2,846,854	5/25/2004	Registered
VENTURE	U.S.	78-378,442	3,700,341	10/20/2009	Registered

Schedule 4
Vidacare Trademark Portfolio

Docket Number	MarkName	Country	Application No	Application Date	Registration No	Registration Date	Status
040792.020221	EZ-IO	United States - (US)	87211623	21-10-16	5269420	22-08-17	REGISTERED - (G)
040792.020222	EZ-CONNECT	United States - (US)	87211647	21-10-16	5213675	30-05-17	REGISTERED - (G)
099599.020001	EZ-IO	Canada - (CA)	1251577	22-03-05	TMA669,464	09-08-06	REGISTERED - (G)
099599.020002	EZ-IO	Canada - (CA)	1453836	01-10-09	TMA800,460	21-06-11	REGISTERED - (G)
099599.020003	EZ-IO	China P.R. - (CN)	5720561	13-11-06	5720561	07-08-09	REGISTERED - (G)
099599.020004	EZ-IO	The European Union Trademark - (EM)	003819083	05-05-04	003819083	08-09-05	REGISTERED - (G)
099599.020005	EZ-IO	The European Union Trademark - (EM)	008341992	04-06-09	008341992	22-02-10	REGISTERED - (G)
099599.020006	EZ-IO	South Korea - (KR)	40-2008-0036291	23-07-08	40-816591	10-03-10	REGISTERED - (G)
099599.020007	EZ-IO	Russian Federation - (RU)	2008723488	23-07-08	392974	23-07-08	REGISTERED - (G)
099599.020009	DEFINING THE FIELD OF INTRAOSSEOUS MEDICINE	United States - (US)	77901307	28-12-09	4016519	23-08-11	INACTIVE - (I)
099599.020013	ONCONTROL	Canada - (CA)	1458633	10-11-09	TMA811,899	17-11-11	REGISTERED - (G)
099599.020014	ONCONTROL	The European Union Trademark - (EM)	008341976	04-06-09	008341976	17-12-09	REGISTERED - (G)
099599.020015	ONCONTROL	South Korea - (KR)	40-2008-36530	24-07-08	40-816592	10-03-10	REGISTERED - (G)
099599.020016	ONCONTROL	Russian Federation - (RU)	2008723487	23-07-08	397726	30-12-09	REGISTERED - (G)
099599.020017	ONCONTROL	United States - (US)	77166714	26-04-07	3822270	20-07-10	REGISTERED - (G)
099599.020021	VIDACARE	Canada - (CA)	1453834	01-10-09	TMA800,457	21-06-11	INACTIVE - (I)

Docket Number	MarkName	Country	Application No	Application Date	Registration No	Registration Date	Status
099599.020022	VIDACARE	China P.R. - (CN)	6962015	19-09-08	6962015	21-05-10	INACTIVE - (I)
099599.020023	VIDACARE	The European Union Trademark - (EM)	008342016	04-06-09	008342016	23-12-09	INACTIVE - (I)
099599.020024	VIDACARE	South Korea - (KR)	45200800003521	18-08-08	45-28587	13-08-09	INACTIVE - (I)
099599.020025	VIDACARE	Russian Federation - (RU)	2008723486	23-07-08	400379	05-02-10	INACTIVE - (I)
099599.020026	VIDACARE	United States - (US)	78131508	28-05-02	2921433	25-01-05	INACTIVE - (I)
099599.020027	VIDACARE	United States - (US)	77399354	18-02-08	3825593	27-07-10	INACTIVE - (I)
099599.020028	VIDACARE	United States - (US)	77578430	25-09-08	3825808	27-07-10	INACTIVE - (I)
099599.020029	VIDACARE	United States - (US)	77578404	25-09-08	3822577	20-07-10	INACTIVE - (I)
099599.020030	VIDACARE	United States - (US)	85498867	19-12-11	4229079	23-10-12	INACTIVE - (I)
099599.020032	EZ-IO T.A.L.O.N.	Canada - (CA)	1545998	30-09-11	TMA933536	04-04-16	INACTIVE - (I)
099599.020033	EZ-IO T.A.L.O.N.	The European Union Trademark - (EM)	010435675	22-11-11	010435675	26-04-12	INACTIVE - (I)
099599.020035	T.A.L.O.N. BY VIDACARE & Design	Canada - (CA)	1582676	08-06-12	TMA921482	27-11-15	INACTIVE - (I)
099599.020036	T.A.L.O.N. BY VIDACARE & Design	International - (IB)	1129604	08-06-12	1129604	08-06-12	INACTIVE - (I)
099599.020037	T.A.L.O.N. BY VIDACARE & Design	Australia - (AU)	1518166	08-06-12	1129604	08-06-12	INACTIVE - (I)
099599.020038	T.A.L.O.N. BY VIDACARE & Design	The European Union Trademark - (EM)	1129604	08-06-12	1129604	08-06-12	INACTIVE - (I)
099599.020039	T.A.L.O.N. BY VIDACARE & Design	United States - (US)	85490893	08-12-11	4429314	05-11-13	INACTIVE - (I)
099599.020041	Design (Bone Icon)	United States - (US)	86261687	24-04-14	4652334	09-12-14	REGISTERED - (G)
099599.020042	EZ-IO & Design	United States - (US)	85499983	20-12-11	4183350	31-07-12	INACTIVE - (I)
099599.020043	ONCONTROL & Design	United States - (US)	85499626	20-12-11	4284970	05-02-13	INACTIVE - (I)

Docket Number	MarkName	Country	Application No	Application Date	Registration No	Registration Date	Status
099599.020044	EZ-IO HANDS-ON LAB EXPERIENCE (& Design)	United States - (US)	85500562	21-12-11	4281645	29-01-13	INACTIVE - (I)
099599.020045	IMMEDIATE VASCULAR ACCESS... WHEN YOU NEED IT.	United States - (US)	85531762	02-02-12	4281738	29-01-13	INACTIVE - (I)
099599.020046	EZ-STABILIZER	Canada - (CA)	1648538	18-10-13	TMA919606	06-11-15	REGISTERED - (G)
099599.020047	EZ-STABILIZER	International - (IB)	1206355	17-10-13	1206355	17-10-13	REGISTERED - (G)
099599.020048	EZ-STABILIZER	Australia - (AU)	1206355	17-10-13	1206355	17-10-13	REGISTERED - (G)
099599.020049	EZ-STABILIZER	China P.R. - (CN)	1206355	17-10-13	1206355	17-10-13	REGISTERED - (G)
099599.020050	EZ-STABILIZER	The European Union Trademark - (EM)	1206355	17-10-13	1206355	17-10-13	REGISTERED - (G)
099599.020051	EZ-STABILIZER	South Korea - (KR)	1206355	17-10-13	1206355	17-10-13	REGISTERED - (G)
099599.020052	EZ-STABILIZER	Russian Federation - (RU)	1206355	17-10-13	1206355	17-10-13	REGISTERED - (G)
099599.020053	EZ-STABILIZER	United States - (US)	85907993	18-04-13	4443522	03-12-13	REGISTERED - (G)
099599.020055	VIDACARE	China P.R. - (CN)	n/a	08-10-08	6988997	07-10-10	INACTIVE - (I)
099599.020065	ONCONTROL	China P.R. - (CN)	37462361	12-04-19			FILED - (F)