(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
20 August 2015 (20.08.2015)

WIPO | PCT

(10) International Publication Number
WO 2015/123671 A3

(51) International Patent Classification:
A61M 25/09 (2006.01) *A61B 17/00* (2006.01)
A61M 25/01 (2006.01) *A61M 25/04* (2006.01)
A61M 25/00 (2006.01) *A61B 19/00* (2006.01)
A61M 25/10 (2013.01) *A61B 17/22* (2006.01)
A61F 2/95 (2013.01)

(21) International Application Number:
PCT/US2015/016155

(22) International Filing Date:
17 February 2015 (17.02.2015)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
61/940,675 17 February 2014 (17.02.2014) US

(71) Applicant: **CLEARSTREAM TECHNOLOGIES LIMITED** [IE/IE]; Moyne Upper, Enniscorthy, County Wexford (IE).

(72) Inventor; and
(71) Applicant : **RANDALL, Michael, Adam** [US/US]; Bard Peripheral Vascular, Inc., 1625 West 3rd Street, Tempe, AZ 85281 (US).

(74) Agent: **DORISIO, Andrew, D.**; c/o Bard Peripheral Vascular, Inc., 1625 West 3rd Street, Tempe, AZ 85281 (US).

(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*

Published:

— *with international search report (Art. 21(3))*

— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*

(88) Date of publication of the international search report:
17 December 2015

(54) Title: ANCHORED GUIDEWIRE WITH MARKINGS TO FACILITATE ALIGNMENT

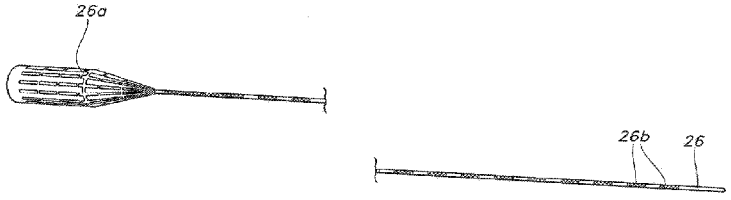


FIG. 7

(57) Abstract: An apparatus for treating a treatment area in the vasculature using a catheter, such as one designed to deliver a payload (such as a therapeutic agent (e.g., a drug, such as paclitaxel, rapamycin, heparin and the like), a stent, a stent graft, or a combination thereof) or a working element (such as a cutter, focused force wire, or the like) to a specified location within the vasculature. The catheter may include at least one first radiopaque marking. A guidewire (26) for guiding the catheter to the treatment area includes an anchor (26a) for selectively anchoring the guidewire to the vasculature, and at least one second radiopaque marking (26b) for corresponding to the at least one first radiopaque marking of the catheter when positioned at the treatment area.

WO 2015/123671 A3

INTERNATIONAL SEARCH REPORT

International application No
PCT/US2015/016155

A. CLASSIFICATION OF SUBJECT MATTER
INV. A61M25/09 A61M25/01 A61M25/00 A61M25/10 A61F2/95
A61B17/00 A61M25/04 A61B19/00 A61B17/22
ADD.
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
A61M A61F A61B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 2010/119445 A1 (ASSIS MEDICAL LTD [IL]; CARMELI RAN [IL]; TEICHMAN EYAL [IL]) 21 October 2010 (2010-10-21)	1,2,5, 7-10,13, 15,16, 19-23
Y	page 7, line 1 - page 18, line 30; figures 1-8b	3,4,11, 12,17,18

X	US 2002/062119 A1 (ZADNO-AZIZI GHOLAM-REZA [US]) 23 May 2002 (2002-05-23)	1,2,5,6, 8-10, 13-16, 19,20
	paragraphs [0046] - [0057]; figures 1-2b paragraphs [0065] - [0112]; figures 5-13	

	-/--	

[X] Further documents are listed in the continuation of Box C.

[X] See patent family annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
25 September 2015	02/10/2015

Name and mailing address of the ISA/	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Jameson, Patricia

1

Form PCT/ISA/210 (second sheet) (April 2005)

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2009/171293 A1 (YANG XIUJIANG [CN] ET AL) 2 July 2009 (2009-07-02) paragraphs [0021] - [0058]; figures 1-15	1,2,5,7, 9,10,13, 16, 19-21,23
X	US 6 355 051 B1 (SISSKIND STEVEN J [US] ET AL) 12 March 2002 (2002-03-12)	1,2, 8-10,15, 16,19-22
A	column 5, line 16 - column 6, line 67; figures 1-4 column 7, line 43 - column 7, line 67; figure 9	5,7
X,P	WO 2014/138513 A1 (CLEVELAND CLINIC FOUNDATION [US]) 12 September 2014 (2014-09-12) sentence 30, paragraph 14 - paragraph 1-5e	1,2,5, 7-10,13, 15,16, 19-22
X,P	WO 2014/165754 A1 (SANFORD HEALTH [US]) 9 October 2014 (2014-10-09) page 3, line 24 - page 6, line 25; figures 1-2c	1-3,5,7
Y	US 5 209 730 A (SULLIVAN DANIEL J [US]) 11 May 1993 (1993-05-11)	3,11
A	abstract; figure 1	1,2,9, 10,21
Y	US 5 479 938 A (WEIER STEVEN D [US]) 2 January 1996 (1996-01-02)	4,12
A	abstract; figures 1-3	1,2,9, 10,21
Y	US 2008/097404 A1 (YRIBARREN TRAVIS R [US] ET AL) 24 April 2008 (2008-04-24)	17,18
A	paragraphs [0020] - [0029]; figures 1, 4-6	1,9,16, 21
A	US 2006/259063 A1 (BATES BRIAN L [US] ET AL) 16 November 2006 (2006-11-16) abstract; figures 1-10	1,5,7
A	WO 2008/007350 A1 (PAIEON INC [US]; SAZBON DIDI [IL]; KLAIMAN MOSHE [IL]; ZARKH MICHAEL [) 17 January 2008 (2008-01-17) abstract; figures 1-2	1,2,9, 10,21

1

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2015/016155

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. [X] Claims Nos.: 24-29
because they relate to subject matter not required to be searched by this Authority, namely:

A meaningful search is not possible on the basis of all claims because claims 24-29 are directed to methods of treatment by surgery.Rule 39.1(iv) PCT - Method for treatment of the human or animal body by surgery

2. [ ] Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. [ ] Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. [ ] As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.

2. [ ] As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.

3. [ ] As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. [ ] No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

[ ] The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.

[ ] The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.

[ ] No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No
PCT/US2015/016155

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 2010119445 A1	21-10-2010	NONE	
US 2002062119 A1	23-05-2002	NONE	
US 2009171293 A1	02-07-2009	EP 2224862 A1	08-09-2010
		US 2009171293 A1	02-07-2009
		WO 2009085916 A1	09-07-2009
US 6355051 B1	12-03-2002	NONE	
WO 2014138513 A1	12-09-2014	US 2014257138 A1	11-09-2014
		WO 2014138513 A1	12-09-2014
WO 2014165754 A1	09-10-2014	AU 2014248072 A1	30-07-2015
		CA 2901190 A1	09-10-2014
		WO 2014165754 A1	09-10-2014
US 5209730 A	11-05-1993	US 5209730 A	11-05-1993
		US 6179788 B1	30-01-2001
US 5479938 A	02-01-1996	NONE	
US 2008097404 A1	24-04-2008	NONE	
US 2006259063 A1	16-11-2006	NONE	
WO 2008007350 A1	17-01-2008	NONE	