

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
1 March 2007 (01.03.2007)

PCT

(10) International Publication Number
WO 2007/025101 A3

- (51) International Patent Classification:
A61F 2/06 (2006.01) *A61F 2/84* (2006.01)
- (21) International Application Number:
PCT/US2006/033174
- (22) International Filing Date: 23 August 2006 (23.08.2006)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
11/211,895 25 August 2005 (25.08.2005) US
- (71) Applicant (for all designated States except US): **BOSTON SCIENTIFIC SCIMED, INC.** [US/US]; One Scimed Place, Maple Grove, MN 55311-1566 (US).

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, 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, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

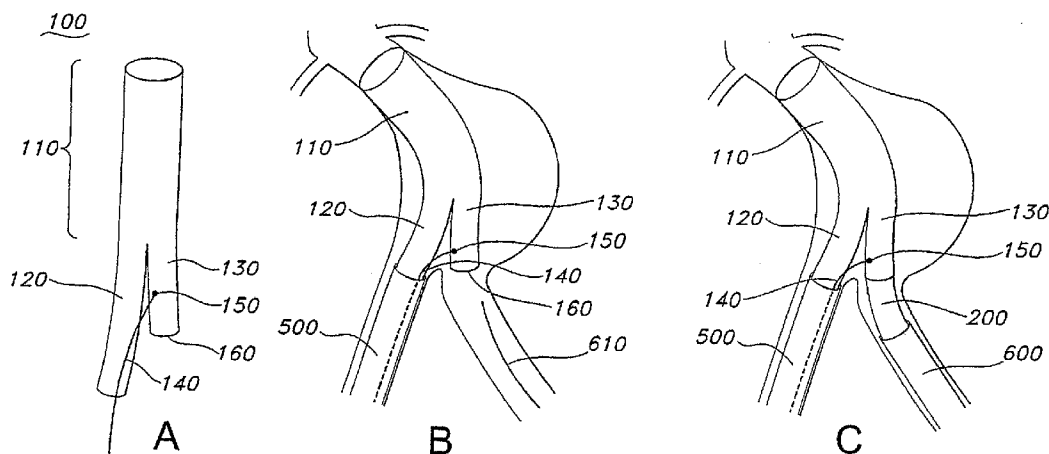
- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report:
25 October 2007

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **O'BRIEN, Mark, E.** [US/US]; 1 Boston Scientific Place, Natick, MA 01760 (US). **SHERRY, John, E.** [US/US]; 130 Birds Hill Avenue, Needham, MA 02492-4243 (US).
- (74) Agent: **COHEN, Joshua, L.**; RatnerPrestia, P.O. Box 980, Valley Forge, PA 19482 (US).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

(54) Title: ENDOLUMINAL PROSTHESIS ADAPTED TO DEPLOYMENT IN A DISTORTED BRANCHED BODY LUMEN



(57) Abstract: An endoluminal device adapted to be deployed in a branched body lumen is provided by intraluminal delivery from an access location remote from the location at which the device is to be deployed, i.e. by introduction through one of the branches of the branched body lumen. The device comprises an unbranched portion, a first branch portion and second branch portion in communication with the unbranched portion, and a distortion element removably connected to the first branch portion for manipulating the geometry of the second branch portion. The distortion element extends along the first branch portion and back to the access location.

INTERNATIONAL SEARCH REPORT

International application No
PCT/US2006/033174

A. CLASSIFICATION OF SUBJECT MATTER INV. A61F2/06 A61F2/84		
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) A61F		
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 practical, 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	US 2003/120333 A1 (OURIEL KENNETH [US] ET AL) 26 June 2003 (2003-06-26) paragraphs [0012], [0001] - [0058], [0060], [0061], [0065] - [0067], [0073], [0105], [0137] - [0139], [0146] - [0148], [0126]; figures 1,2,15-17,19,20,26A-B,37A-37C	1-6,9,10
A	US 5 824 040 A (COX BRIAN [US] ET AL) 20 October 1998 (1998-10-20) abstract; figures 17C-D	7
A	EP 1 498 085 A (INOUE KANJI [JP]) 19 January 2005 (2005-01-19) abstract; figures 34-46	1,4-6,9
<div style="display: flex; justify-content: space-between;"> <input type="checkbox"/> Further documents are listed in the continuation of Box C. <input checked="" type="checkbox"/> See patent family annex. </div>		
<div style="display: flex;"> <div style="flex: 1;"> <p>* Special categories of cited documents :</p> <p>*A* document defining the general state of the art which is not considered to be of particular relevance</p> <p>*E* earlier document but published on or after the international filing date</p> <p>*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)</p> <p>*O* document referring to an oral disclosure, use, exhibition or other means</p> <p>*P* document published prior to the international filing date but later than the priority date claimed</p> </div> <div style="flex: 1;"> <p>*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</p> <p>*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</p> <p>*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.</p> <p>*Z* document member of the same patent family</p> </div> </div>		
Date of the actual completion of the international search <div style="text-align: center; font-weight: bold;">5 March 2007</div>		Date of mailing of the international search report <div style="text-align: center; font-weight: bold;">13/08/2007</div>
Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016		Authorized officer <div style="text-align: center; font-weight: bold;">Portoni, Luisa</div>

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2006/033174

Box 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. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
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 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:

see additional sheet

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 fee, this Authority did not invite payment of any additional fee.
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.:

see additional sheet(s)

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1--7, 9-10

An endoluminal device comprising an unbranched portion; at least two branched portions in communication with said unbranched portion, comprising a first branch portion and a second branch portion; a distortion element removably connected to the second branch portion.

2. claim: 8

An introducer comprising a tubular outer sheath; a tubular inner sheath disposed within said outer sheath; a channel disposed between the outer sheath and the inner sheath.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2006/033174

Patent document cited in search report		Publication date		Patent family member(s)		Publication date
US 2003120333	A1	26-06-2003	AU	2002366797 A1		09-07-2003
			WO	03053286 A2		03-07-2003
US 5824040	A	20-10-1998	US	6283991 B1		04-09-2001
EP 1498085	A	19-01-2005	NONE			