

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
12 September 2008 (12.09.2008)

(10) International Publication Number
WO 2008/107885 A3

(51) International Patent Classification:
A61F 2/06 (2006.01)

(21) International Application Number:
PCT/IL2008/000287

(22) International Filing Date:
5 March 2008 (05.03.2008)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/892,885 5 March 2007 (05.03.2007) US
60/991,726 2 December 2007 (02.12.2007) US

(71) Applicants and

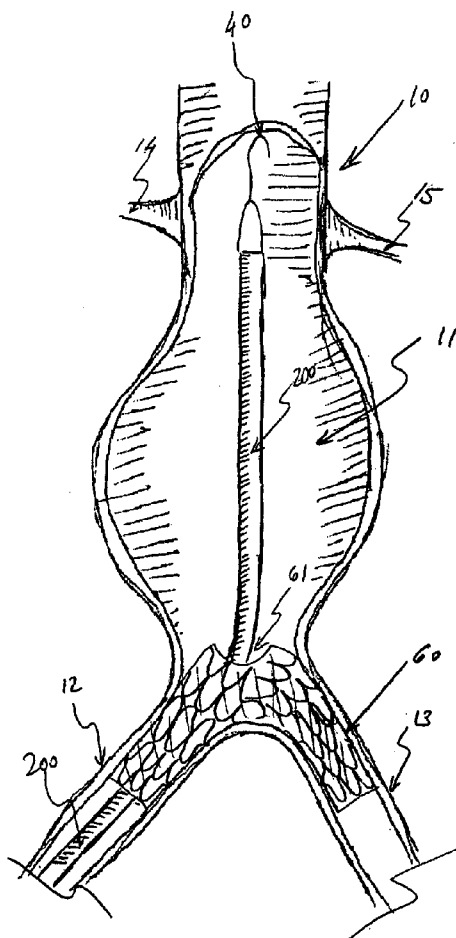
(72) Inventors: SHALEV, Alon [IL/IL]; 9 Wingate Street, 43587 Raanana (IL). BENARY, Rafi [IL/IL]; 15 Harav Ashi Street, 69395 Tel Aviv (IL).

(74) Agent: KLEIN, David; Beit HaRofim, 18 Menuha Ve-Nahala Street, Room 27, 76209 Rehovot (IL).

(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, BR, BW, BY, BZ, CA, CH, 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, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG,

[Continued on next page]

(54) Title: MULTI-COMPONENT EXPANDABLE SUPPORTIVE BIFURCATED ENDOLUMINAL GRAFTS AND METHODS FOR USING SAME



(57) Abstract: A multiple-component expandable endoluminal system for treating a lesion at a bifurcation including a self expandable tubular root member having a side-looking engagement aperture, a self expandable tubular trunk member comprising a substantially blood impervious polymeric liner secured therealong; both having a radially compressed state adapted for percutaneous intraluminal delivery and a radially expanded state adapted for endoluminal support.

WO 2008/107885 A3



SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG,
US, UZ, VC, VN, ZA, ZM, ZW.

(BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,
NE, SN, TD, TG).

(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, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR), OAPI

Published:

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

(88) Date of publication of the international search report:

18 February 2010

INTERNATIONAL SEARCH REPORT

International application No.

PCT/IL 08/00287

<p>A. CLASSIFICATION OF SUBJECT MATTER IPC(8) - A61F 2/06 (2008.04) USPC - 623/1.35 According to International Patent Classification (IPC) or to both national classification and IPC</p>												
<p>B. FIELDS SEARCHED</p> <p>Minimum documentation searched (classification system followed by classification symbols) IPC(8): A61F 2/06 (2008.04) USPC: 623/1.35</p> <p>Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched USPC: 623/1.1, 1.13, 1.15, 1.16, 1.2</p> <p>Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) Electronic Databases Searched: PubWEST(PGPB,USPT,EPAB,JPAB); Google; Google Scholar; Google Patents Search Terms: iliac, intraluminal, expand\$, compress\$, stent, graft, bifurcat\$, radial\$</p>												
<p>C. DOCUMENTS CONSIDERED TO BE RELEVANT</p> <table border="1"> <thead> <tr> <th>Category*</th> <th>Citation of document, with indication, where appropriate, of the relevant passages</th> <th>Relevant to claim No.</th> </tr> </thead> <tbody> <tr> <td>X</td> <td>US 2006/0241740 A1 (Vardi et al.) 26 October 2006 (26.10.2006); FIGS. 3, 6a-6g; para[0010], [0042]-[0045], [0051]</td> <td>1-15</td> </tr> <tr> <td>A</td> <td>US 2006/0229709 A1 (Morris et al.) 12 October 2006 (12.10.2006); entire document</td> <td>1-15</td> </tr> </tbody> </table>			Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.	X	US 2006/0241740 A1 (Vardi et al.) 26 October 2006 (26.10.2006); FIGS. 3, 6a-6g; para[0010], [0042]-[0045], [0051]	1-15	A	US 2006/0229709 A1 (Morris et al.) 12 October 2006 (12.10.2006); entire document	1-15	
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.										
X	US 2006/0241740 A1 (Vardi et al.) 26 October 2006 (26.10.2006); FIGS. 3, 6a-6g; para[0010], [0042]-[0045], [0051]	1-15										
A	US 2006/0229709 A1 (Morris et al.) 12 October 2006 (12.10.2006); entire document	1-15										
<p><input type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/></p>												
<p>* Special categories of cited documents:</p> <table border="0"> <tr> <td>"A" document defining the general state of the art which is not considered to be of particular relevance</td> <td>"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</td> </tr> <tr> <td>"E" earlier application or patent but published on or after the international filing date</td> <td>"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</td> </tr> <tr> <td>"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)</td> <td>"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</td> </tr> <tr> <td>"O" document referring to an oral disclosure, use, exhibition or other means</td> <td>"&" document member of the same patent family</td> </tr> <tr> <td>"P" document published prior to the international filing date but later than the priority date claimed</td> <td></td> </tr> </table>			"A" document defining the general state of the art which is not considered to be of particular relevance	"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	"E" earlier application or patent but published on or after the international filing date	"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	"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)	"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	"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family	"P" document published prior to the international filing date but later than the priority date claimed	
"A" document defining the general state of the art which is not considered to be of particular relevance	"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											
"E" earlier application or patent but published on or after the international filing date	"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											
"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)	"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											
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family											
"P" document published prior to the international filing date but later than the priority date claimed												
<p>Date of the actual completion of the international search</p> <p>23 September 2008 (23.09.2008)</p>		<p>Date of mailing of the international search report</p> <p>29 SEP 2008</p>										
<p>Name and mailing address of the ISA/US</p> <p>Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201</p>		<p>Authorized officer:</p> <p>Lee W. Young</p> <p>PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774</p>										