

(19) World Intellectual Property
Organization
International Bureau



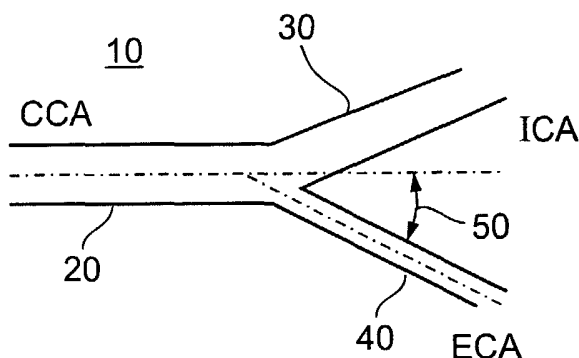
(43) International Publication Date
17 June 2004 (17.06.2004)

PCT

(10) International Publication Number
WO 2004/050137 A3

- (51) International Patent Classification⁷: **A61M 29/00**
- (21) International Application Number:
PCT/IL2003/001013
- (22) International Filing Date:
28 November 2003 (28.11.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
60/429,551 29 November 2002 (29.11.2002) US
- (71) Applicant (for all designated States except US): **MIND-GUARD LTD.** [IL/IL]; 1 Alon Hatavor, Industrial Park, 38 900 Caesarea (IL).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **YODFAT, Ofer** [IL/IL]; 4/4 Nahal HaYarkon Street, 71 700 Modi'in (IL). **NISHRI, Boaz** [IL/IL]; Maagan Michael, 37 805 Doar Na Menashe (IL). **GRAD, Ygael** [IL/IL]; 14 Mintz Street, 69 512 Tel Aviv (IL). **RAPAPORT, Avraham** [IL/IL]; 10 Drezner Street, 69497 Tel Aviv (IL). **OZ, Orna** [IL/IL]; 4 Shvidelsohn Street, 46 807 Herzlia (IL). **ASSAF, Yaron** [IL/IL]; Maagan Michael, 37 805 D.N. Menashe (IL). **HARRIS, Dagan** [IL/IL]; 7 Yigal Alon Street, 38 444 Hadera (IL).
- (74) Agent: **G. E. EHRLICH (1995) LTD.**; 11 Menachem Begin Street, 52 521 Ramat Gan (IL).
- (81) Designated States (national): AE, AG, AL, AM, AT (utility model), AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ (utility model), CZ, DE (utility model), DE, DK (utility model), DK, DM, DZ, EC, EE (utility model), EE, EG, ES, FI (utility model), FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK (utility model), SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (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:
10 February 2005
- 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.

(54) Title: BRAIDED INTRALUMINAL DEVICE FOR STROKE PREVENTION



(57) Abstract: A diverting filter (100) for implantation in the bifurcation of the human common carotid artery (CCA) with the external carotid artery (ECA) and the internal carotid artery (ICA), comprising: a tubular body expandable from an initial small-diameter state for manipulation through the CCA to an expanded larger-diameter state for implantation in said bifurcation, the tubular body having an at rest state wherein the tubular body exhibits a diameter greater than the expanded larger-diameter state; the tubular body including a proximal region (120) for implantation in the CCA, a distal region (130) for implantation in the ECA, and a middle filtering region (110) for alignment with the orifice of the ICA for diverting relatively-large emboli in the CCA blood flow to the ECA while minimizing interference to blood flow through both the ICA and the ECA;

constituted of between 48 and 56 braided filaments exhibiting an average porosity index of at least 80%.



WO 2004/050137 A3

INTERNATIONAL SEARCH REPORT

International application No.

PCT/IL03/01013

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : A61M 29/00
 US CL : 606/200

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)
 U.S. : 606/200, 191

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)
 Please See Continuation Sheet

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 6,258,115 B1 (Dubrul) 10 July 2001, see fig. 4-5, col. 6-7	1-25

Further documents are listed in the continuation of Box C.

See patent family annex.

* Special categories of cited documents:	"T"
"A" document defining the general state of the art which is not considered to be of particular relevance	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 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	

Date of the actual completion of the international search

07 December 2004 (07.12.2004)

Date of mailing of the international search report

05 JAN 2005

Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US
 Commissioner for Patents
 P.O. Box 1450
 Alexandria, Virginia 22313-1450

Facsimile No. (703) 305-3230

Authorized officer

(Jackie) Tan-Uyen T. Ho

Telephone No. (703) 308-0858

INTERNATIONAL SEARCH REPORT

PCT/IL03/01013

Continuation of B. FIELDS SEARCHED Item 3:
EAST- braided near (stent filter) and micron
EAST - diverting near filter