

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

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
19 September 2002 (19.09.2002)

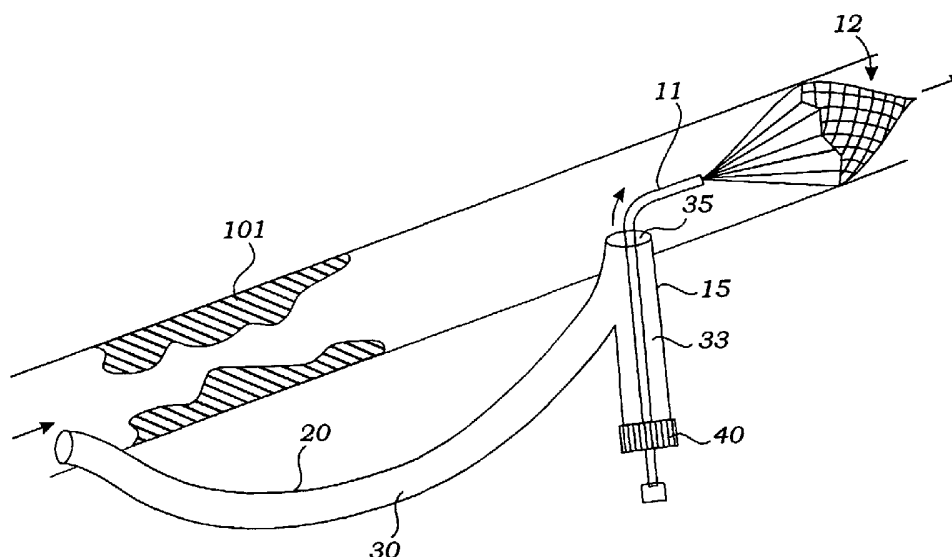
PCT

(10) International Publication Number  
**WO 02/071920 A3**

- (51) International Patent Classification<sup>7</sup>: **A61M 5/00** **MARTINEZ, Lorraine, M.**; 701 Saltillo Place, Fremont, CA 94536 (US).
- (21) International Application Number: PCT/US02/04316
- (22) International Filing Date: 12 February 2002 (12.02.2002) (74) Agent: **KAPPOS, John, C.**; O'Melveny & Myers LLP, Suite 100, 114 Pacifica, Irvine, CA 92618-3315 (US).
- (25) Filing Language: English (81) Designated States (*national*): CA, JP.
- (26) Publication Language: English (84) Designated States (*regional*): European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR).
- (30) Priority Data:  
09/803,745 8 March 2001 (08.03.2001) US
- (71) Applicant: **EDWARDS LIFESCIENCES CORPORATION** [US/US]; One Edwards Way, Irvine, CA 92614 (US).  
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
- (72) Inventors: **TUROVSKIY, Roman**; 447-25th Avenue, #1, San Francisco, CA 94121 (US). **BALCETA, Jobert**; 933-D Summerside Drive, San Jose, CA 95122 (US). **TSUGITA, Ross, S.**; 1653 Gretel Lane, Mountain View, CA 94040 (US). **THORNTON, Peter**; 1416 Fairway Drive, Los Altos, CA 94024 (US). **NUEL, Brian, P.**; 10526-B North Foothill Blvd., Cupertino, CA 95014 (US). (88) Date of publication of the international search report: 11 December 2003

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: CEREBRAL PROTECTION DURING CAROTID ENDARTERECTOMY AND METHODS OF USE



(57) Abstract: A shunt and method of use for maintaining distal blood flow during an arteriotomy procedure is disclosed. The shunt (20) includes first (30) and second tubular members (33) having proximal ports, distal ports, and lumens therebetween. The distal port of the second tubular member is adapted for releasable attachment to the proximal port of the first tubular member. A second lumen merges and communicates at its distal end with the lumen of the first tubular member and includes a hemostatic valve (40) attached to its proximal end. In using the apparatus for performing open endarterectomy, a filter device (12) is inserted into the vessel and deployed downstream the region of interest in the internal carotid artery. The distal end of the shunt is advanced over the filter device (12) and secured onto the artery. The proximal end of the shunt is inserted upstream the region of interest, typically in the common carotid artery.



WO 02/071920 A3

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US02/04316

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : A61M 5/00

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, 159; 604/8, 9, 284

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  
None

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
EAST

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5,876,367 A (KAGANOV et al.) 02 March 1999 (02.03.1999), see fig. 5.	1-98

☐ Further documents are listed in the continuation of Box C.

☐ 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 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

30 September 2003 (30.09.2003)

Date of mailing of the international search report

10 OCT 2003

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