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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
3 November 2005 (03.11.2005)

PCT

(10) International Publication Number
WO 2005/102015 A3

(51) International Patent Classification:
A61F 2/24 (2006.01) *A61M 25/00* (2006.01)

(21) International Application Number:
PCT/US2005/013746

(22) International Filing Date: 22 April 2005 (22.04.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/565,118 23 April 2004 (23.04.2004) US

(71) Applicant *(for all designated States except US)*: **3F THERAPEUTICS, INC.** [US/US]; 20412 James Bay Circle, Lake Forest, California 92630 (US).

(72) Inventors; and
(75) Inventors/Applicants *(for US only)*: **BERGHEIM, Bjarne** [NO/US]; 27722 Deputy Circle, Laguna Hills, California 92653 (US). **DUMONTELLE, Jeffrey** [US/US]; 5731 Sierra Cielo Road, Irvine, California 92612 (US). **MYERS, Keith** [US/US]; 25291 Dayton Drive, Lake Forest, California 92630 (US).

(74) Agent: **NOLL, Rebekka**; JONES DAY, 555 West Fifth Street, Suite 4600, Los Angeles, California 90013-1025 (US).

(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, 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, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, 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, 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*

(88) Date of publication of the international search report:
19 April 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.

(54) Title: IMPLANTABLE PROSTHETIC VALVE

(57) Abstract: A valve prostheses (12, 15) adapted to be initially crimped in a narrow configuration suitable for catheterization through body ducts to a target location and adapated to be deployed by exerting substantially radial forces from within by means of a deployment device to a deployed state in the target location.

WO 2005/102015 A3

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US05/13746

A. CLASSIFICATION OF SUBJECT MATTER
IPC: **A61F 2/24**(2006.01);**A61M 25/00**(2006.01)

USPC: 623/2.17
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. : 623/2.17

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)
text search of subclasses using EAST database and terms: collapsible , valve, frame, support stent, catheter, deployment

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5,411, 552 A (ANDERSEN et al) 02 May 1995, Figs. 2, 3, abstract, col. 2, lines 28-35, col. 4, lines 18-29	1
X	US 5,824,064 A (TAHERI) 20 October 1998(20.10.1998), Figs. 2A, 2B, 4A, col. 2, lines 35-44, col. 4, lines 50-58.	1
A	GB 2 056 023 A (ROSS et al.) 11 March 1981(11.03.1981), Figs. 1, 3, col. 1, lines 91-101.	1

☐ 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

"B" 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	Date of mailing of the international search report
02 October 2006 (02.10.2006)	26 OCT 2006
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. (571) 273-3201	Authorized officer Brian Pellegrino Telephone No. (571) 272.3700

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