

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
10 April 2008 (10.04.2008)

PCT

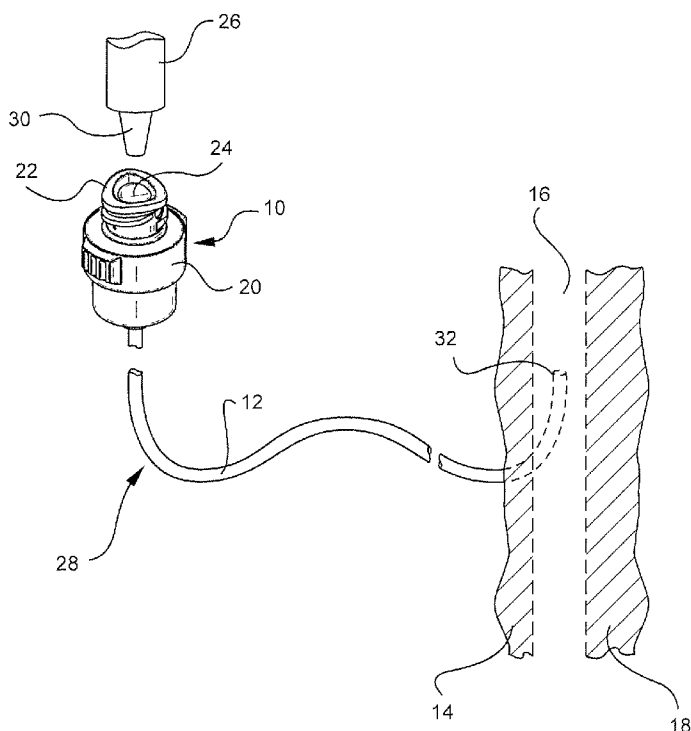
(10) International Publication Number  
**WO 2008/043016 A3**

- (51) **International Patent Classification:**  
*A61M 31/00* (2006.01) [US/US]; 7869 South 1960 East, South Weber, UT 84405 (US).
- (21) **International Application Number:**  
PCT/US2007/080444
- (22) **International Filing Date:** 4 October 2007 (04.10.2007)
- (25) **Filing Language:** English
- (26) **Publication Language:** English
- (30) **Priority Data:**  
60/828,357 5 October 2006 (05.10.2006) US  
11/863,089 27 September 2007 (27.09.2007) US
- (71) **Applicant (for all designated States except US):** BECTON, DICKINSON AND COMPANY [US/US]; 1 Beeton Drive, Franklin Lakes, NJ 07417 (US).
- (72) **Inventor; and**
- (75) **Inventor/Applicant (for US only):** STOUT, Marty, L.
- (74) **Agent: METCALF, Craig;** Metcalf Intellectual Property Law, LLC, 2795 East Cottonwood Parkway, Suite 155, Salt Lake City, UT 84121 (US).
- (81) **Designated States (unless otherwise indicated, for every kind of national protection available):** AE, AG, AL, AM, 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, 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,

[Continued on next page]

(54) **Title:** VASCULAR ACCESS DEVICES INCLUDING A TEAR-RESISTANT SEPTUM

FIG. 1



(57) **Abstract:** A vascular access device may include a body, a septum at least partially disposed within the body, and/or a protective material adapted to resist tearing of the septum. A method of manufacturing a vascular access device may include disposing at least a part of a septum within a body and disposing a protective material in communication with the septum.

WO 2008/043016 A3



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, MT, 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:**  
9 October 2008

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/US2007/080444

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - A61M 31/00 (2008.01)

USPC - 604/288.04

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)

IPC(8) - A61 M31/00 (2008.01 )

USPC - 604/288.04

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)

PatBase

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6,050,978 A (ORR et al) 18 April 2000 (18.04.2000) entire document	1, 3, 8-9, 15, 20
Y		2, 4-7, 10-14, 16-19
Y	US 2005/0209553 A 1 (LANDAU) 22 September 2005 (22.09.2005) entire document	2, 4-7
Y	US 5,509,912 A (VAILLANCOURT et al) 23 April 1996 (23.04.1996) entire document	5-6, 10-14, 17
Y	US 2004/0049162 A 1 (FISHER) 11 March 2004 (11.03.2004) entire document	7
Y	US 5,520,666 A (CHOUDHURY et al) 28 May 1996 (28.05.1996) entire document	11-14
Y	US 2003/0181878 A 1 (TALLARIDA et al) 28 September 2003 (28.09.2003) entire document	16, 18-19

 Further documents are listed in the continuation of Box C.

\* 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 but 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

"&amp;" document member of the same patent family

Date of the actual completion of the international search

18 January 2008

Date of mailing of the international search report

**10 APR 2008**

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:

Blaine R. Copenheaver

PCT Helpdesk 571-272-4300  
PCTOSP 571-272-7774