## (19) World Intellectual Property Organization

International Bureau



# 

(43) International Publication Date 29 November 2007 (29.11.2007)

PCT (10) International Publication Number WO 2007/137226 A3

(51) International Patent Classification: *A61F 2/02* (2006.01)

(21) International Application Number:

PCT/US2007/069370

**(22) International Filing Date:** 21 May 2007 (21.05.2007)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

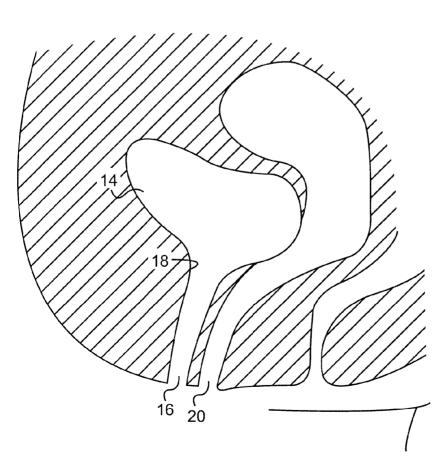
60/747,736 19 May 2006 (19.05.2006) US 60/819,370 10 July 2006 (10.07.2006) US

(71) Applicant (for all designated States except US): AMS RE-SEARCH CORPORATION [US/US]; 10700 Bren Road West, Minnetonka, MN 55343 (US). (71) Applicants and

- (72) Inventors: OTTE, John, Fritz [US/US]; 2521 Pahl Avenue, St. Anthony, MN 55418 (US). LUND, Robert, E. [US/US]; 9686 41st Place Circle NE, St. Michael, MN 55376 (US). BUYSMAN, John, Jason [US/US]; 16619 Temple Drive North, Minnetonka, MN 55345 (US). KOULLICK, Edouard, A. [NL/US]; 416 Natchez Avenue South, Golden Valley, MN 55416 (US). LONGHINI, Ross, A. [US/US]; 1299 O'Ryan Trail North, Stillwater, MN 55082 (US). PRESTHUS, James, B. [US/US]; 5859 Long Blake Trail, Edina, MN 55439 (US).
- (74) Agent: SCHULTE, Daniel, C.; Kagan Binder, PLLC, Suite 200, Maple Island Building, 221 Main Street North, Stillwater, MN 55082 (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, DZ, EC, EE, EG, ES,

[Continued on next page]

(54) Title: METHOD AND ARTICLES FOR TREATMENT OF STRESS URINARY INCONTINENCE



(57) Abstract: Improved methods and apparatuses for treatment of incontinence or pelvic organ prolapse are provided. A neo ligament for increasing the supportive function of the tissues supporting the urethra, bladder neck, or rectum is disclosed. Methods of using such a neoligament to treat incontinence are disclosed. Additionally, a self tensioning elastic tissue bolster for support of the tissues that support the urethra, rectum, and bladder neck are disclosed. A method of treating incontinence by injecting proliferative agents into supportive structures is disclosed. Methods and apparatus for transvaginal and transperitieai pelvic floor bolster treatment of incontinence and bladder pillar systems are also disclosed.

### WO 2007/137226 A3



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, 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: 17 April 2008

#### INTERNATIONAL SEARCH REPORT

International application No. PCT/US07/69370

A. CLASSIFICATION OF SUBJECT MATTER IPC(8) - A61F 2/02 (2007.10) USPC - 600/30 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) - A61F 2/02 (2007.10) USPC - 600/30			
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) MicroPatent			
C. DOCUMENTS CONSIDERED TO BE RELEVANT			
Category*	Citation of document, with indication, where a	ppropriate, of the relevant passages	Relevant to claim No.
x	US 6,042,534 A (GELLMAN et al) 28 March 2000 (28.03.2000) entire document		1-3, 5-6, 11-15, 17-19
x	US 5,611,515 A (BENDEREV et al) 18 March 1997 (18.03.1997) entire document		1, 4, 16, 20
X	US 6,979,317 B2 (GALT et al) 27 December 2005 (27.12.2005) entire document		7-9
Υ			10
Υ	US 6,447,505 B2 (MCGOVERN et al) 10 September 2002 (10.09.2002) entire document		10
,			
Further documents are listed in the continuation of Box C.  * Special categories of cited documents:  "T" later document published after the international filling date or priority.			
"A" document defining the general state of the art which is not considered to be of particular relevance "I" 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			
filing date considered novel or canno		considered novel or cannot be considered	
cited to establish the publication date of another citation or other "Y" docume		r document of particular relevance, the t	claimed invention cannot be
"O" document referring to an oral disclosure, use, exhibition or other means considered to involve an inventive step when the docum combined with one or more other such documents, such comb being obvious to a person skilled in the art		ocuments, such combination	
"P" document published prior to the international filing date but later than "&" the priority date claimed		"&" document member of the same patent family	
Date of the actual completion of the international search  Date of mailing of the international search report			
21 December 2007		<b>30</b> JAN 2008	
Name and mailing address of the ISA/US		Authorized officer:	
Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450		Blaine R. Copenheaver PCT Hetpdesk: 571-272-4300	
		PCT OSP: 571-272-7774	