# (19) World Intellectual Property Organization

International Bureau



# ) | 1886 | 1886 | 1886 | 1886 | 1886 | 1886 | 1886 | 1886 | 1886 | 1886 | 1886 | 1886 | 1886 | 1886 | 1886 | 1

# (43) International Publication Date 3 January 2008 (03.01.2008)

## PCT

# (10) International Publication Number WO~2008/002550~A3

- (51) International Patent Classification: *A61B 17/56* (2006.01)
- (21) International Application Number:

PCT/US2007/014784

- (22) International Filing Date: 26 June 2007 (26.06.2007)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:

60/816,407

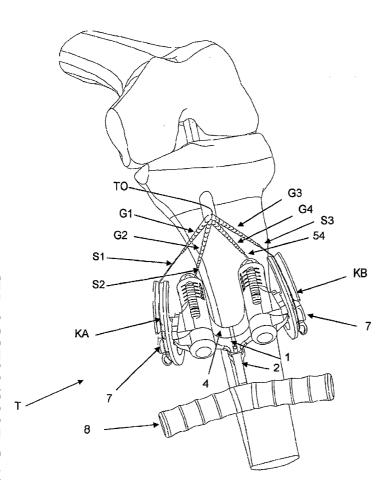
26 June 2006 (26.06.2006) US

- (71) Applicant (for all designated States except US): SCANDIUS BIOMEDICAL, INC. [US/US]; 11A Beaver Brook Road, Littleton, MA 01460 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): MARSHALL, Peter [US/US]; 6 Kettle Hole Road, Bolton, MA 01740 (US). HUBBARD, Dennis [US/US]; 94 Deershorn Road, Lancaster, MA 01523 (US).
- (74) Agent: PANDISCIO, Mark, J.; Pandiscio & Pandiscio, P.C., 470 Totten Pond Road, Waltham, MA 02451 (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, 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).

[Continued on next page]

(54) Title: GRAFT LIGAMENT STRAND TENSIONER



(57) Abstract: A graft ligament strand tensioner having a body and a pair of suture rails connected to the body. Each suture rail includes a grooved outer channel for receiving a suture loop and a central mandrel for receiving a suture loop. The separation of a suture loop received by the grooved outer channel is larger than the separation of a suture loop received by the central mandrel. A graft ligament strand tensioner having a body and cleats connected to the body. A graft ligament strand tensioner having a body, at least two suture-engaging elements which are connected to the body symmetrically about a center axis of the body and a handle pivotally connected to the body, such that the handle can be laterally positioned relative to the longitudinal axis of the body.

## WO 2008/002550 A3



#### Published:

(88) Date of publication of the international search report:

21 August 2008

- 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

### INTERNATIONAL SEARCH REPORT

International application No.

PCT/US07/14784

A. CLASSIFICATION OF SUBJECT MATTER IPC: A61B 17/56( 2006.01)			
USPC: 606/86R			
According to International Patent Classification (IPC) or to both national classification and IPC			
D. FIRI DO OR ADOVICE			
B. FIELDS SEARCHED			
Minimum documentation searched (classification system followed by classification symbols) U.S.: 606/86R			
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)			
O DOCUMENTS CONSIDERED TO DE RELEVANT			
	UMENTS CONSIDERED TO BE RELEVANT		Dalamata alaim Ma
Category *	Citation of document, with indication, where ap US 6,679,889 B1 (WEST, JR. et al) 20 January 2004	1	Relevant to claim No.
Λ			1-33
Α	US 5,630,820 (TODD) 20 May 1997 (20.05.1997), see whole document.		1-33
Α	US 6,001,106 (RYAN et al) 14 December 1999 (14.12.1999), see whole document.		1-33
Α	US 4,712,542 (DANIEL et al) 15 December 1987 (15.12.1987), see whole document.		1-33
Α	US 5,037,426 (GOBLE et al) 06 August 1991 (06.08.1991), see whole document.		1-33
•	·		
	·	·	
Further documents are listed in the continuation of Box C. See patent family annex.			
Special categories of cited documents:		"T" later document published after the inter	
"A" document defining the general state of the art which is not considered to be of particular relevance		date and not in conflict with the applicate 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	
• •	referring to an oral disdosure, use, exhibition or other means	with one or more other such documents, such combination being obvious to a person skilled in the art	
"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	
22 May 2008 (22.05.2008)		<b>24 JUN 2008</b>	
Name and mailing address of the ISA/US		Authorized officer	
Mail Stop PCT, Attn: ISA/US Commissioner for Patents		Eduardo Robert MASAULT	
P.O. Box 1450 Alexandria, Virginia 22313-1450		Telephone No. (571) 272-4719	
	. (571) 273-3201	1	JW