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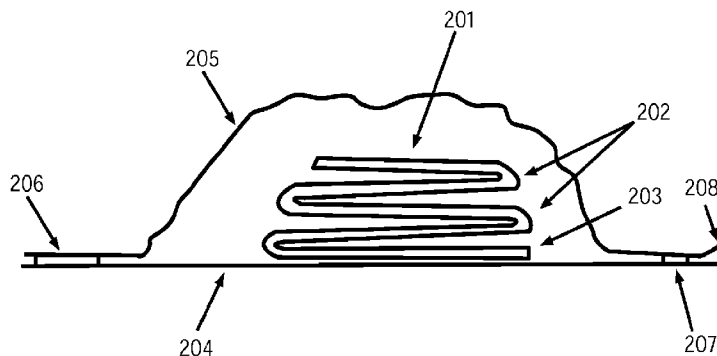


FIG. 2

(57) Abstract: The present application is directed to the field of implants comprising processed hard or soft biological tissues for use in implantation in humans. The molded biological tissue implants of the present application are preferably made from allograft soft tissue sources and demineralized bone matrix. The present application provides biological implants exhibiting advantageous properties of absorption, expansion, resiliency and shape retention. The properties of the biological implants produced by the methods of the present application are leveraged in the creation and development of novel biological implant constructs and of novel methods of treatment and surgical technique.



INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2013/046240

A. CLASSIFICATION OF SUBJECT MATTER IPC(8) - A61F 2/02 (2013.01) USPC - 424/424 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) - A61B 17/00; A61F 2/02; A61L 27/36; A61K 35/12 (2013.01) USPC - 424/400, 422, 423, 424, 548, 549; 623/1.11, 13.17, 902 Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched CPC - A61F 2/02; A61L 27/3608, 27/3683 (2013.01) Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) PatBase, Google Patents		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2005/0152881 A1 (MILLS et al) 14 July 2005 (14.07.2005) entire document	1-15, 21
Y	US 2005/0123581 A1 (RINGEISEN et al) 09 June 2005 (09.06.2005) entire document	1-15, 21
Y	US 6,648,133 B1 (BLASCHKE et al) 18 November 2003 (18.11.2003) entire document	6
Y	US 2011/0152897 A1 (BATES) 23 June 2011 (23.06.2011) entire document	7, 9-15
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/>		
* 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 "&" document member of the same patent family		
Date of the actual completion of the international search 20 November 2013		Date of mailing of the international search report <div style="font-size: 24pt; font-weight: bold; text-align: center;">03 DEC 2013</div>
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 PCT OSP: 571-272-7774

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US2013/046240

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

See extra sheet.

1. As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. As all searchable claims could be searched without effort justifying additional fees, this Authority did not invite payment of additional fees.
3. As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:
1-15, 21

Remark on Protest

- The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US2013/046240

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1. In order for all inventions to be examined, the appropriate additional examination fees must be paid.

Group I, claims 1-15 and 21, are drawn to a biological graft comprising a dehydrated tissue graft that is compressed and rehydrated at the surgical site.

Group II, claims 16-20, are drawn to a biological graft comprising a bone block and a molded tissue component.

The inventions listed as Groups I-II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the special technical features of Group I invention: a dehydrated tissue graft that is compressed and rehydrated at the surgical site, are not present in the invention of Group II. And the special technical feature of the Group II invention: a bone block and molded tissue component, are not present in Group I.

Groups I and II lack unity of invention, even though the inventions of these groups share the technical feature of a biological graft, this shared technical feature does not make a contribution over the prior art in view of US 6,926,743 B1 to Chuter. In particular, Chuter disclose a biological stent-graft and a method of making, wherein a biological stent graft is surgically implanted (Abstract regarding biological stent-graft).

Since none of the special technical features of the Group I or II inventions are found in more than one of the inventions, unity of invention is lacking.