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(71) Applicant *(for CA only)*: **SYNTHES (U.S.A.)** [US/US]; 1302 Wrights Lane East, West Chester, PA 19380 (US).

(71) Applicant *(for all designated States except CA, US)*: **SYNTHES GMBH** [CH/CH]; Eimattstrasse 3, CH-4436 Oberdorf (CH).

(71) Applicant: **DREXEL UNIVERSITY** [US/US]; 3141 Chestnut Street, Philadelphia, PA 19104 (US).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **SMITH, Nigel, Gordon** [GB/GB]; The Orangery, 29 Whitlingham Hall, Norwich NR14 8QH (GB). **HANS, Meredith** [US/US]; 1963 Maplewood Avenue, Abington, PA 19001 (US). **LOWMAN, Anthony, M.** [US/US]; 12 Waterford Way, Wallingford, PA 19086 (US). **VERNENGO, Andrea, Jennifer** [US/US]; 11 Tiffany Place, Sicklerville, NJ 08081 (US). **FUSSELL, Garland** [US/US]; 504 Municipal Drive, Thorndale, PA 19372 (US).

(74) Agents: **ROTHERY, Brian, M.** et al.; Stroock & Stroock & Lavan LLP, 180 Maiden Lane, New York, NY 10038 (US).

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[Continued on next page]

(54) Title: METHOD TO REPAIR A DAMAGED INTERVERTEBRAL DISC THROUGH THE USE OF A BIOADHESIVE, THERMOGELLING HYDROGEL

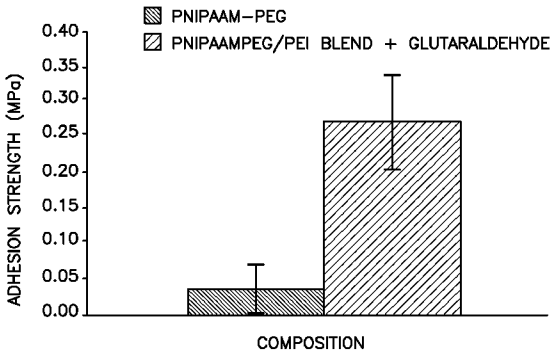

Fig.3

(57) Abstract: The present invention is directed to a bioadhesive thermogelling hydrogel composition for repairing and/or augmenting an intervertebral disc. The bioadhesive thermogelling hydrogel composition can be cross linked with the surrounding tissue so as to potentially serve as a nucleus pulposus replacement or augmentation along with serving to repair annular tears or fissure. The bioadhesive thermogelling hydrogel composition may include three main components: a thermal responsive polymer, an amine-containing polymer and a crosslinking component. All three components can be modified and combined in numerous ways to serve the need of the system as long as the amine-containing component is kept separate from the crosslinking component until the components are injected.. The incorporation of a two-part crosslinking thermal responsive hydrogel permits smaller amounts of the crosslinking component to be used and enables the crosslinking dialdehyde to be delivered locally into the tissue that will react with the hydrogel. This helps prevent damage to tissues away from the hydrogel.

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According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

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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 practical, search terms used)
EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 2004/098756 A (UNIV DREXEL [US]; GELIFEX INC [US]; LOWMAN ANTHONY M [US]; MARCOLONGO) 18 November 2004 (2004-11-18) page 2, line 33 - page 4, line 9 page 5, line 5 - page 7, line 19 claims 1-6,12-20	1-6,8, 11-14, 18, 20-22, 24-30
X	US 2005/203206 A1 (TRIEU HAI H [US]) 15 September 2005 (2005-09-15) page 2, paragraph 22-24 page 4, paragraphs 36,40,41 page 5, paragraph 46 page 8, paragraph 78-82 claims 1-4,12-16,27,32	1,2,9, 10,19,23

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[X] Further documents are listed in the continuation of Box C.

[X] See patent family annex.

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European Patent Office, P.B. 5818 Patentlaan 2 NL – 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Van den Bulcke, H

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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	XU ET AL: "pH- and temperature-responsive hydrogels from crosslinked triblock copolymers prepared via consecutive atom transfer radical polymerizations" BIOMATERIALS, ELSEVIER SCIENCE PUBLISHERS BV., BARKING, GB, vol. 27, no. 14, 1 May 2006 (2006-05-01), pages 2787-2797, XP005272771 ISSN: 0142-9612 the whole document	1-3,7, 11,15-17
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