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(54) **Title:** THERMO-RESPONSIVE MATERIALS

(57) **Abstract:** The invention is directed to, inter alia, injectable materials, which comprise a zero-length cross-linking agent encapsulated in a thermo-responsive liposome dispersed in a polymer solution where the polymer and cross-linking agent are segregated at a first temperature, and non-segregated at a second temperature, and the material is injectable at the first temperature. The invention is directed to, inter alia, processes for producing the material and use of the material for tissue repair and regeneration and controlled delivery of an agent are also described.

# INTERNATIONAL SEARCH REPORT

International Application No.

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**A CLASSIFICATION OF SUBJECT MATTER**  
 IPC **A61K** 9/127( 2006 01)  
  
 USPC 424/450,264/4 I  
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**B FIELDS SEARCHED**  
 Minimum documentation searched (classification system followed by classification symbols)  
 U S 424/450 264/4 I

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)  
 Please See Continuation Sheet

**C DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No
A	US 4 921,757 A (WHEATLEY et al) OI Ma; 1990 (01 05 1990) see entire patent	1-76

Further documents are listed in the continuation of Board C **D** See patent family annex

* Special categories of cited documents	T
A document defining the general state of the art which is not considered to be of particular relevance	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
E earlier application or patent published on or after the international filing date	\ 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
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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	& document member of the same patent family

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Name and mailing address of the ISA/US Mail Stop PCT, Attn ISA/US Commissioner for Patents P O Box 1450 Alexandria Virginia 223 13-1450 Facsimile No (57 1) 273-320 1	Authorized officer Gollamudi S Kishore, Ph D Telephone No 703 308 1234

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Continuation of B. FIELDS SEARCHED Item 3:

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