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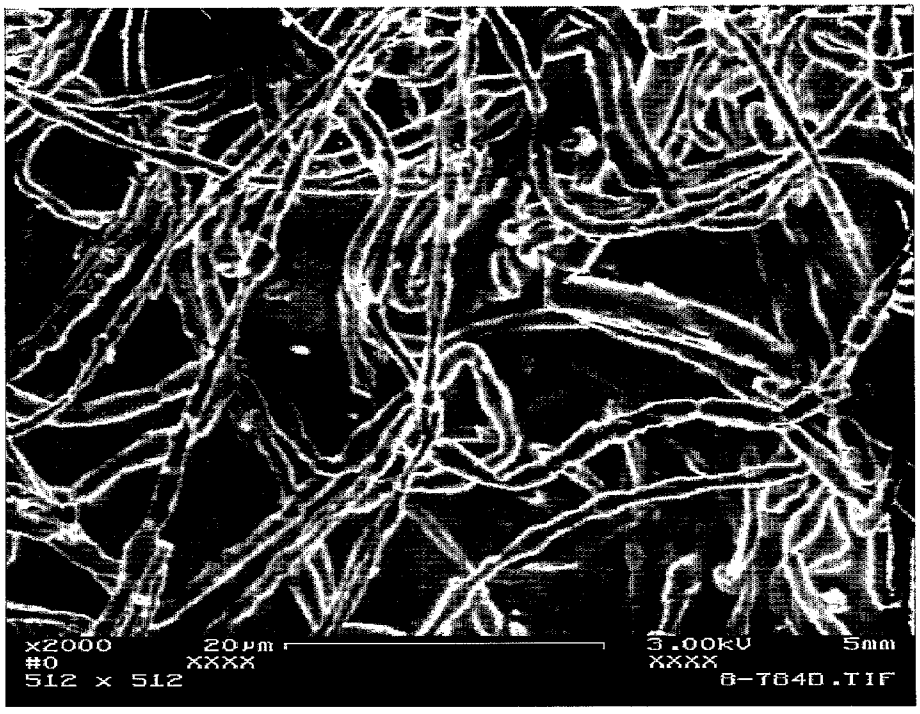
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[Continued on next page]

(54) **Title:** MEDICAL SCAFFOLD, METHODS OF FABRICATION AND USING THEREOF



(57) **Abstract:** Articles of manufacturing comprising electrospun elements having continuous or stepwise gradients of porosity, average pore size, weight per volume and/or of agents for promoting cell colonization, differentiation, extravasation and/or migration are provided. Also provided are methods of manufacturing and using same for guiding tissue regeneration.

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— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

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26 July 2007

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

International application No
PCT/IL2006/000421

A. CLASSIFICATION OF SUBJECT MATTER
INV. A61L27/38 A61L27/50 A61L27/56

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)
A61L

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.
A	WO 02/49536 A (NICAST LTD [IL]; DUBSON ALEXANDER [IL]; BAR ELI [IL]) 27 June 2002 (2002-06-27) claims 1,4,6,17-19,23	1
A	US 2003/100944 A1 (LAKSIN OLGA [US] ET AL) 29 May 2003 (2003-05-29) page 5, right-hand column, line 1 - line 5 claims 1,3	1

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

[X] See patent family annex.

* 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 document 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	Date of mailing of the international search report
23 March 2007	24/05/2007

Name and mailing address of the ISA/	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL – 2280 HV Rijswijk Tel. (+31–70) 340–2040, Tx. 31 651 epo nl, Fax: (+31–70) 340–3016	Heck, Georg

Form PCT/ISA/210 (second sheet) (April 2005)

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	MYUNG-SEOB KHIL, SHANTA RAJ BHATTARAI, HAK-YONG KIM, SUNG-ZOO KIM, KEUN-HYUNG LEE: "Novel fabricated matrix via electrospinning for tissue engineering" JOURNAL OF BIOMEDICAL MATERIALS RESEARCH PART B, vol. 72, no. 1, 15 January 2005 (2005-01-15), pages 117-124, XP002426403 cited in the application page 117, left-hand column, paragraph 1 - page 118, left-hand column, paragraph 2 page 121, right-hand column, paragraph 3 - page 123, left-hand column, paragraph 1	1,4-53, 57-62

INTERNATIONAL SEARCH REPORT

International application No.
PCT/IL2006/000421

Box 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. [X] Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

Although claims 58, 59, 61, 62 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.

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 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 additional 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 an additional fee, this Authority did not invite payment of any additional fee.

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. [X] 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.:

1,4 (completely), 5-53, 57-62 (partially)

Remark on Protest

[ ] The additional search fees were accompanied by the applicant's protest.

[ ] No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1,4 (completely), 5-53, 57-62 (partially)

   Article of manufacture comprising an electrospun element having a continuous gradient of average pore size along at least a portion thereof.

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2. claims: 2 (completely), 5-30, 34-39, 41-53, 57-62 (partially)

   Article of manufacture comprising an electrospun element having a continuous or stepwise gradient of at least one agent along at least a portion thereof.

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3. claims: 3 (completely), 6, 7, 10-12, 14, 17-30, 34-39, 41-49, 57-62 (partially)

   Article of manufacture comprising an electrospun element having a first surface and a second surface defining a volume therebetween and pores of different sizes close to said first and second surfaces.

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4. claim: 54 (completely)

   Method of perforating an electrospun element comprising passing an electrical spark through the electrospun element.

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5. claims: 55, 56 (completely)

   Scaffold comprising an electrospun element consisting of PCL and PLA polymers and/or copolymers.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No
PCT/IL2006/000421

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