(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
7 February 2002 (07.02.2002)

PCT

(10) International Publication Number
WO 02/010348 A3

(51) International Patent Classification[7]: C12N 5/06, A61L 27/38, 24/10

(21) International Application Number: PCT/GB01/03463

(22) International Filing Date: 30 July 2001 (30.07.2001)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

0018583.5	29 July 2000 (29.07.2000)	GB
0025939.0	24 October 2000 (24.10.2000)	GB
0116885.5	11 July 2001 (11.07.2001)	GB
0116886.3	11 July 2001 (11.07.2001)	GB
0116888.9	11 July 2001 (11.07.2001)	GB

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(81) Designated States *(national)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

(84) Designated States *(regional)*: ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:
— *with international search report*

(88) Date of publication of the international search report:
6 September 2002

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.

WO 02/010348 A3

(54) Title: TISSUE IMPLANT FOR CARTILAGE REPAIR

(57) Abstract: The Invention relates to a medicament and method of treating cartilage defect. The invention also relates to an implant for treating cartilage defect.

INTERNATIONAL SEARCH REPORT

International Application No
PCT/GB 01/03463

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 C12N5/06 A61L27/38 A61L24/10

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 7 A61L A61F C12N

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, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 326 357 A (KANDEL RITA A) 5 July 1994 (1994-07-05) column 1, line 30 - line 48 column 7, line 43 -column 8, line 8 claims 1,10-12,15,17,18	1-36,43, 54,58, 120-123, 126
X	WO 97 30662 A (ADVANCED TISSUE SCIENCES INC) 28 August 1997 (1997-08-28) page 6, line 12 -page 7, line 17 page 33, line 21 -page 36, line 21	36-42, 47-57, 59,60, 120-125, 127,128

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

[X] Patent family members are listed in 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
19 April 2002	07.05.02

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, G

Form PCT/ISA/210 (second sheet) (July 1992)

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication,where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 736 372 A (VACANTI CHARLES A ET AL) 7 April 1998 (1998-04-07) claims 1,2,5,7-11	44,45, 61-101, 108-119
X	US 5 962 325 A (NAUGHTON GAIL K ET AL) 5 October 1999 (1999-10-05) column 20, line 39 -column 21, line 29	102-107
A	ROBINSON D ET AL: "IMPLANTS COMPOSED OF CARBON FIBER MESH AND BONE-MARROW-DERIVED, CHONDROCYTE-ENRICHED CULTURES FOR JOINT SURFACE RECONSTRUCTION" BULLETIN - HOSPITAL FOR JOINT DISEASES, HOSPITAL FOR JOINT DISEASES, NEW YORK, NY, US, vol. 53, no. 1, 1993, pages 75-82, XP000882116 ISSN: 0018-5647 page 75, paragraph 1 -page 77, paragraph 1	1-35, 120-123
A	WO 00 29552 A (OSIRIS THERAPEUTICS INC; BARRY FRANK (US); MURPHY MARY (US); BOYNT) 25 May 2000 (2000-05-25) claims 1-11	1-35, 120-123
A	US 5 786 217 A (TUBO ROSS A ET AL) 28 July 1998 (1998-07-28) claims 1-4,7-9,14,15	1-35, 120-123
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A	US 6 051 750 A (BELL EUGENE) 18 April 2000 (2000-04-18) column 8, line 36 -column 9, line 6	102-107

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

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

1. Claims: 1-35 (entirely), 120-123 (partially)

   Superficial zone chondroprogenitor cells for repairing cartilage defects.

2. Claims: 36-60, 124-128 (entirely), 120-123 (partially)

   Immature chondroprogenitor cells for repairing cartilage defects.

3. Claims: 61-85, 108-119

   Implant comprising a chondroprogenitor cell binding material.

4. Claims: 86-101

   Synthetic implant for cartilage repair comprising a biocompatible scaffold and a conformable zone.

5. Claims: 102-107

   Method and bioreactor for manufacturing a cell-seeded implant.

INTERNATIONAL SEARCH REPORT

ernational application No.
PCT/GB 01/03463

Box I Observations where certain claims were found unsearchable (Continuation of item 1 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:

see FURTHER INFORMATION sheet PCT/ISA/210

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 II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

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

see additional sheet

1. [X] 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. [ ] 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.:

Remark on Protest

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

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

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.1

Although claims 7, 8, 13, 14, 54, 55, 58 and 59 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 composition.

Continuation of Box I.1

Rule 39.1(iv) PCT - Method for treatment of the human or animal body by surgery

INTERNATIONAL SEARCH REPORT

nformation on patent family members

Ir onal Application No
PCT/GB 01/03463

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