

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
12 June 2008 (12.06.2008)

PCT

(10) International Publication Number
WO 2008/069761 A1

(51) International Patent Classification:

A61L 27/00 (2006.01) A61L 27/40 (2006.01)
A61L 27/32 (2006.01) A61L 27/26 (2006.01)
C08J 9/00 (2006.01) A61L 27/56 (2006.01)
A61L 27/14 (2006.01)

[SG/SG]; Blk 173B Punggol Field, #14-603, Singapore 822173 (SG).

(74) Agent: **SCHIWECK, Wolfram**; Viering, Jentschura & Partner LLP, P.O. Box 1088, Rochor Post Office, Rochor Road, Singapore 911833 (SG).

(21) International Application Number:

PCT/SG2007/000415

(22) International Filing Date:

5 December 2007 (05.12.2007)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

60/872,795 5 December 2006 (05.12.2006) US

(71) Applicant (for all designated States except US):
NANYANG TECHNOLOGICAL UNIVERSITY
[SG/SG]; 50 Nanyang Avenue, Singapore 639798 (SG).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **CHIAN, Kerm Sin** [SG/SG]; 41 Greenleaf Rise, Singapore 279390 (SG). **LEONG, Kah Fai** [SG/SG]; 700 Lorong 1 Toa Payoh, #06-01, Singapore 319773 (SG). **LIM, Tze Chiun**

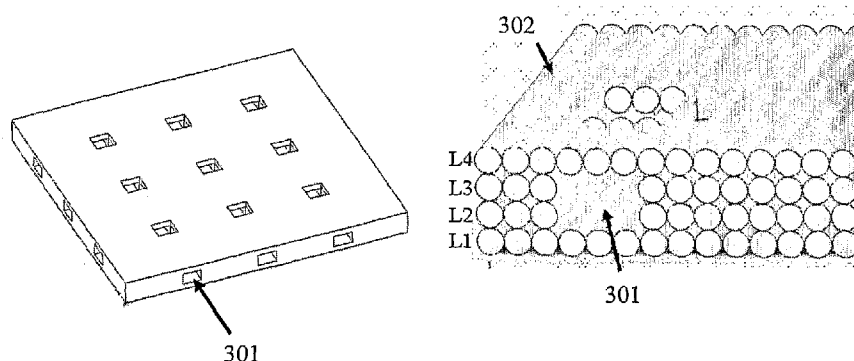
(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

(54) Title: MANUFACTURING THREE-DIMENSIONAL SCAFFOLDS USING CRYOGENIC PROTOTYPING



(57) Abstract: The present invention refers to a method of fabricating a three dimensional scaffold suitable for tissue-engineering having a controlled micro- and macroporous structure using cryogenic prototyping. The present invention also refers to scaffolds obtained by the method of the present invention and to their use.

WO 2008/069761 A1