



(51) International Patent Classification:

A61L 27/16 (2006.01) A61L 27/38 (2006.01)
A61L 27/56 (2006.01)

(21) International Application Number:

PCT/US2010/047028

(22) International Filing Date:

27 August 2010 (27.08.2010)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

61/238,011 28 August 2009 (28.08.2009) US

(72) Inventors; and

(71) Applicants : **HASILO, Craig** [CA/CA]; 14 Gibson Drive, Tillsonburg, ON N4G 5G5 (CA). **LEUSHNER, Justin** [CA/CA]; 507 Billybrook Crescent, London, ON N5X 2V9 (CA). **HAWORTH, Daniel, Nicholas** [GB/GB]; 4 Marlborough Road, Aldbourne, Marlborough, Wiltshire SN8 2DD (GB). **SHOHET, Simon** [GB/GB]; The Old Bakery, 31 Sun Street, Pottton, Bedfordshire SG19 2LR (GB). **TOLEIKIS, Philip, Michael** [US/CA]; 8011 Laburnum St., Vancouver, BC V6P 5N8 (CA). **SIROEN, Delfina, Maria, Mazzuca** [CA/CA]; 203 Walmer Grove, London, ON N6G 4G8 (CA).

(74) Agent: **MCDONELL, Leslie, A.**; Finnegan, Henderson, Farabow, Garrett & Dunner, LLP, 901 New York Avenue, N.W., Washington, DC 20001-4413 (US).

(81) Designated States (unless otherwise indicated, for every

kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, 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, PE, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, 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, LR, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report (Art. 21(3))

[Continued on next page]

(54) Title: METHODS AND DEVICES FOR CELLULAR TRANSPLANTATION

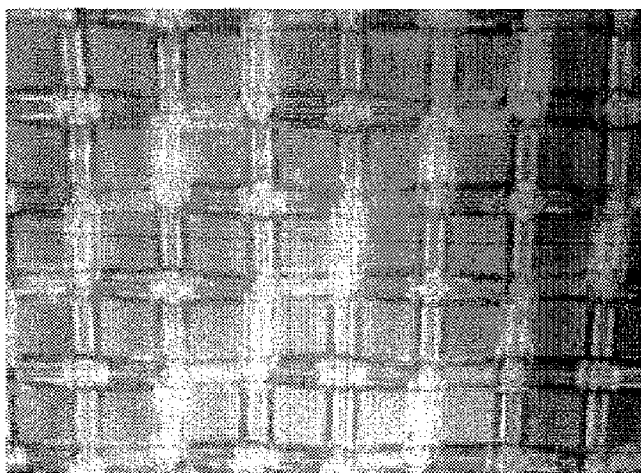


FIG. 2A

(57) Abstract: Devices and methods for transplanting cells in a host body are described. The cell comprises a porous scaffold that allows ingrowth of vascular and connective tissues, a plug or plug system configured for placement within the porous scaffold, and a seal configured to enclose a proximal opening in the porous scaffold. The device may further comprise a cell delivery device for delivering cells into the porous scaffold. The method of cell transplantation comprises a two step process. The device is incubated in the host body to form a vascularized collagen matrix around a plug positioned within the porous scaffold. The plug is then retracted from the porous scaffold, and cells are delivered into the vascularized space created within the porous scaffold.



— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*

(88) **Date of publication of the international search report:**
16 June 2011