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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
3 January 2014 (03.01.2014)

WIPO | PCT

(10) International Publication Number
WO 2014/004341 A1

(51) International Patent Classification:
C12N 5/071 (2010.01) *C12N 5/074* (2010.01)

(21) International Application Number:
PCT/US2013/047243

(22) International Filing Date:
24 June 2013 (24.06.2013)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
61/664,259 26 June 2012 (26.06.2012) US

(71) Applicant: **SERAXIS, INC.** [US/US]; 20271 Goldenrod Lane, Germantown, Maryland 20876 (US).

(72) Inventor: **RUST, William, L.**; c/o Seraxis, Inc., 20271 Goldenrod Lane, Germantown, Maryland 20876 (US).

(74) Agents: **BENT, Stephen A.** et al.; Foley & Lardner LLP, 3000 K Street NW, Suite 600, Washington, District of Columbia 20007 (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, BN, 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, 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, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, 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, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, 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, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*

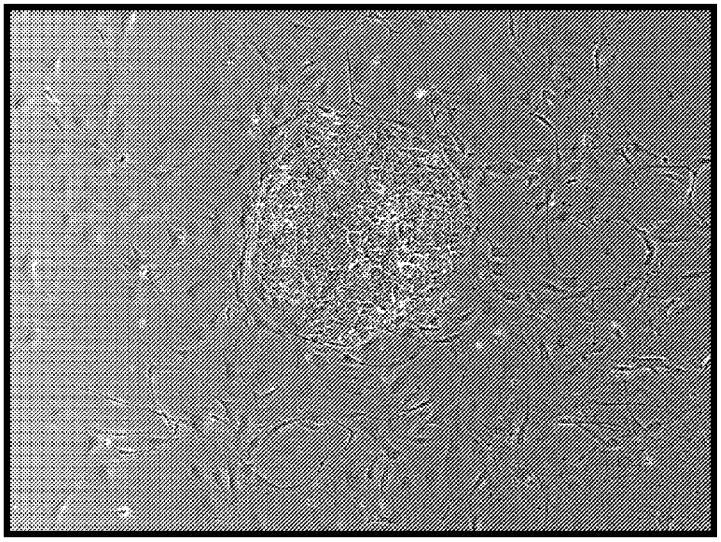
— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

Published:

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

(54) Title: STEM CELLS AND PANCREATIC CELLS USEFUL FOR THE TREATMENT OF INSULIN-DEPENDENT DIABETES MELLITUS

Figure 3.



(57) Abstract: Fresh human pancreas tissue can be used as a source of cells whence to identify and select a non-stem cell population that is predisposed to be a source for surrogate pancreatic cells that can be used in treating insulin-dependent diabetes. The progenitors of these surrogate pancreatic cells have no reprogramming genes integrated into their genomes, differentiate to the pancreatic lineage pursuant to a protocol that employs only defined reagents, and are substantially unable to differentiate to the mesodermal lineage.

WO 2014/004341 A1