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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
17 December 2009 (17.12.2009)

PCT

(10) International Publication Number
WO 2009/151907 A3

(51) International Patent Classification:
A61K 38/18 (2006.01) *A61P 9/00* (2006.01)
A61K 38/48 (2006.01) *A61K 38/20* (2006.01)

(21) International Application Number:
PCT/US2009/044714

(22) International Filing Date:
20 May 2009 (20.05.2009)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
PCT/US2008/064895 27 May 2008 (27.05.2008) US

(71) Applicant *(for all designated States except US)*: **MAYO FOUNDATION FOR MEDICAL EDUCATION AND RESEARCH** [US/US]; 200 First Street S.W., Rochester, Minnesota 55905 (US).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **TERZIC, Andre** [FR/US]; 803 8th Street S.W., Rochester, Minnesota 55902 (US). **BEHFAR, Atta** [US/US]; 1121 Plummer Circle S.W., Rochester, Minnesota 55902 (US).

(74) Agents: **FINN III, J. Patrick** et al.; Fish & Richardson P.C., P.O. Box 1022, Minneapolis, Minnesota 55440-1022 (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, 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, ST, 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, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, 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 (Art. 21(3))*

— *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:
15 April 2010

WO 2009/151907 A3

(54) Title: COMPOSITIONS AND METHODS FOR USING CELLS TO TREAT HEART TISSUE

(57) Abstract: This document relates to compositions containing cardiogenic factors, to methods to obtain cells by culturing initial cells in the presence of such factors; and methods of administering the obtained cells to heart tissue.