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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
28 June 2012 (28.06.2012)

WIPO | PCT

(10) International Publication Number
WO 2012/087606 A1

(51) International Patent Classification:
A61K 9/00 (2006.01)

(21) International Application Number:
PCT/US2011/064115

(22) International Filing Date:
9 December 2011 (09.12.2011)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
61/425,172 20 December 2010 (20.12.2010) US

(71) Applicant *(for all designated States except US)*: **SAINT JOSEPH'S TRANSLATIONAL RESEARCH INSTITUTE, INC.** [US/US]; 5673 Peachtree Dunwoody Rd., NE Suite 330, Atlanta, GA 30342 (US).

(72) Inventors; and
(75) Inventors/Applicants *(for US only)*: **SINGH, Jaipal** [US/US]; 465 Trowgate Lane, Atlanta, GA 30350 (US). **CHRONOS, Nicolas** [US/US]; 139 Dudley Court, Atlanta, GA 30327 (US).

(74) Agents: **PABST, Patrea, L.** et al.; Pabst Patent Group LLP, 1545 Peachtree Street, N.E., Suite 320, Atlanta, GA 30309 (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, 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, 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, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, 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))*

— *of inventorship (Rule 4.17(iv))*

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))*

(54) Title: A DRUG ELUTING PATCH FOR THE TREATMENT OF LOCALIZED TISSUE DISEASE OR DEFECT

(57) Abstract: A polymeric matrix for delivery of an HMG CoA reductase inhibitor such as a statin to tissue such as cardiac tissue in need thereof for the treatment or prevention of a disease or defect such as atrial fibrillation has been developed. In the preferred embodiment, a statin is delivered by means of a patch sutured to cardiac tissue at the time of cardiothoracic surgery. In the most preferred embodiment, the patch is a biodegradable material providing controlled or sustained release over a prolonged period of time, such as a week. Suitable materials include extracellular matrix, or other biodegradable hydrogels or polymeric materials providing sustained or controlled release of statin at the site of application.

WO 2012/087606 A1