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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
24 June 2010 (24.06.2010)

PCT

(10) International Publication Number
WO 2010/071854 A1

(51) International Patent Classification:
A01N 43/38 (2006.01) *A61K 31/40* (2006.01)

(21) International Application Number:
PCT/US2009/068869

(22) International Filing Date:
18 December 2009 (18.12.2009)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
61/139,400 19 December 2008 (19.12.2008) US
61/174,423 30 April 2009 (30.04.2009) US
61/239,967 4 September 2009 (04.09.2009) US

(71) Applicant *(for all designated States except US)*: **ANTHERA PHARMACEUTICALS, INC.** [US/US]; 25801 Industrial Blvd., Suite B, Hayward, California 94545 (US).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **HISLOP, Colin** [US/US]; 785 Arbor Road, Menlo Park, California 94025 (US). **TRIAS, Joaquim** [US/US]; 960 Sequoia Ave., Millbrae, California 94030 (US). **ODINK, Debra** [US/US]; 1061 Trestle Glen Road, Oakland, California 94610 (US). **TRUEX, Paul** [US/US]; 446 Mares Court, Pleasanton, California 94566 (US).

(74) Agent: **MORRIS, Patrick**; Perkins Coie LLP, P.O. Box 1208, Seattle, Washington 98111-1208 (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, 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, 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))*

WO 2010/071854 A1

(54) Title: TREATMENT OF MAJOR ADVERSE CARDIAC EVENTS AND ACUTE CORONARY SYNDROME USING SECRETORY PHOSPHOLIPASE A2 (SPLA2) INHIBITOR OR SPLA2 INHIBITOR COMBINATION THERAPIES

(57) Abstract: Administration of $sPLA_2$ inhibitors in combination with statins has been found to reduce major adverse cardiac events (MACEs), inflammatory biomarker levels, and LDL-C levels in subjects who have recently experienced an index ACS event to a significantly greater degree than statins alone. These results were unexpected given previous results showing that statins alone are insufficient to satisfactorily reduce MACEs and inflammation in this high-risk population. Therefore, provided herein are methods of treating MACEs, treating ACS, inhibiting inflammation, and lowering cholesterol levels in a subject who has previously experienced an ACS event by administering one or more $sPLA_2$ inhibitors alone or in combination with one or more statins.