

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
29 January 2009 (29.01.2009)

PCT

(10) International Publication Number
WO 2009/015314 A3

(51) International Patent Classification:
C12N 9/10 (2006.01) *A61K 38/45* (2006.01)

(21) International Application Number:
PCT/US2008/071119

(22) International Filing Date: 25 July 2008 (25.07.2008)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/952,007 26 July 2007 (26.07.2007) US

(71) Applicant (for all designated States except US): **AMGEN INC.** [US/US]; Patent Operations, M/S 28-2-C, One Amgen Center Drive, Thousand Oaks, CA 91320-1799 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **ZHOU, Mingyue** [US/US]; 25878 Gettysburg Avenue, Hayward, CA 94545 (US). **BOONE, Thomas** [US/US]; 2715 Kelly Knoll Lane, Newbury Park, CA 91320 (US). **MEININGER, David, Park** [US/US]; 2721 1st Avenue, Seattle, WA 98121 (US). **SCHWARTZ, Margrit** [US/US]; 1630 Hull Drive, San Carlos, CA 94070 (US). **SHAN, Bei** [US/US]; 349 Quay Lane, Redwood City, CA 94065 (US).

(74) Agent: **WILLIAMS, Joseph, A.**; Marshall, Gerstein & Borun LLP, 233 S. Wacker Drive, Suite 6300, Sears Tower, Chicago Tower, IL 60606-6357 (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, 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
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report:
12 March 2009

(54) Title: MODIFIED LECITHIN-CHOLESTEROL ACYLTRANSFERASE ENZYMES

(57) Abstract: The invention provides compounds, pharmaceutical compositions and methods for treating atherosclerosis, coronary heart disease, thrombosis, and for decreasing or prevention of accumulation of cholesterol in a subject by modifying LCAT polypeptide.



WO 2009/015314 A3