



(51) International Patent Classification:

C07D 417/04 (2006.01) **A61K 31/427** (2006.01)
C07D 417/14 (2006.01) **A61P 3/00** (2006.01)

(21) International Application Number:

PCT/EP2009/051926

(22) International Filing Date:

18 February 2009 (18.02.2009)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

61/030,137 20 February 2008 (20.02.2008) US

(71) Applicants (for all designated States except US): **NOVARTIS AG** [CH/CH]; Lichtstrasse 35, CH-4056 Basel (CH). **XENON PHARMACEUTICALS INC.** [CA/CA]; 3650 Gilmore Way, Burnaby, British Columbia V5G 4W8 (CA).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **CHOWDHURY, Sultan** [CA/CA]; 7007-180th Street, Surrey, British Columbia V3S 7S3 (CA). **DALES, Natalie** [US/US]; Novartis Institutes for BioMedical Research, Inc., 400 Technology Square, Cambridge, Massachusetts 02139 (US). **FONAREV, Julia** [CA/CA]; 61-3900 Moresby Drive, Richmond, British Columbia V7C 4G6 (CA). **FU, Jianmin** [US/CA]; 3170 Quintette Crescent, Coquitlam, British Columbia V3E 3B6 (CA). **HOU, Duanjie** [CA/CA]; 46-7088 17th Avenue, Burnaby, British Columbia V3N 1K5 (CA). **JIA, Qi** [CA/CA]; 7633 Buller Avenue, Burnaby, British Columbia V5J 5M6 (CA). **KODUMURU, Vishnumurthy** [CA/CA]; 7480 Vista Crescent, Burnaby, British Columbia V5E 2E1 (CA). **POKROVSKAIA, Natalia** [CA/CA]; 100-845 McBride Boulevard, New Westminster, British Columbia V3L 2C2 (CA). **SUN, Shaoyi** [CA/CA]; 5-1200 Brunette Avenue,

Coquitlam, British Columbia V3K 1G3 (CA). **ZHANG, Zaihui** [CA/CA]; 4038 MacDonald Street, Vancouver, British Columbia V6L 2N9 (CA).

(74) Agent: **VOEGELI-LANGE, Regina**; Novartis Pharma AG, Patent Department, CH-4002 Basel (CH).

(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).

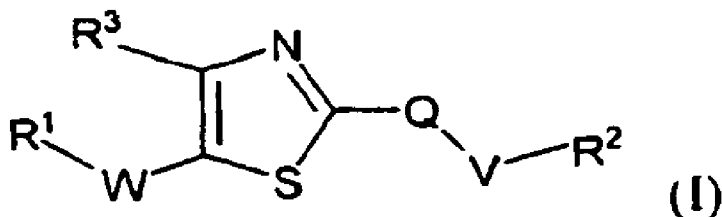
Declarations under Rule 4.17:

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

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: HETEROCYCLIC INHIBITORS OF STEAROYL-CoA DESATURASE



(57) Abstract: The present invention provides heterocyclic derivatives of formula (I) that modulate the activity of stearyl-CoA desaturase. Methods of using such derivatives to modulate the activity of stearyl-CoA desaturase and pharmaceutical compositions comprising such derivatives are also encompassed.