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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
31 March 2005 (31.03.2005)

PCT

(10) International Publication Number
WO 2005/028471 A1

(51) International Patent Classification[7]: C07D 401/12, 215/48, C07C 229/64

(21) International Application Number:
PCT/US2004/029773

(22) International Filing Date:
13 September 2004 (13.09.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/503,108 15 September 2003 (15.09.2003) US

(71) Applicant *(for all designated States except US)*: **SCHERING CORPORATION** [US/US]; 2000 Galloping Hill Road, Kenilworth, NJ 07033 (US).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **ANDREWS, David, R.** [US/US]; 449 Baldwin Road, Maplewood, NJ 07040 (US). **TANG, Suhan** [US/US]; 19 Clinton Court, Plainsboro, NJ 08536 (US). **WU, Wenxue** [US/US]; 53 Zaitz Farm Road, Princeton Junction, NJ 08550 (US). **KALLINEY, Sami, Y.** [US/US]; 77 Garden Avenue, Chatham, NJ 07928 (US). **SUDHAKAR, Anantha** [US/US]; 18 Snowden Road, East Brunswick, NJ 08816 (US). **NIELSEN, Christopher** [US/US]; 27 Sandra Circle, Westfield, NJ 07090 (US).

(74) Agent: **KALYANARAMAN?, Palaiyur, S.?**; Schering-Plough Corporation, 2000 Galloping Hill Road, Mailstop K-6-1 1990, Kenilworth, NJ 07033 (US).

(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

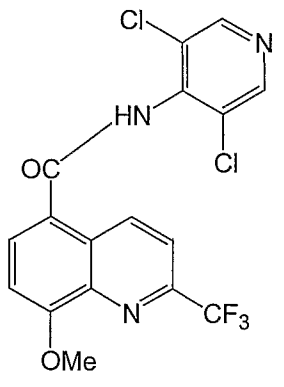
(84) Designated States *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:
— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations*

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*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: SYNTHESIS OF QUINOLINE 5-CARBOXAMIDES USEFUL FOR THE PREPARATION OF PDE IV INHIBITORS



(I)

(57) Abstract: In one embodiment, the present application discloses a process for making the compound of the formula:

WO 2005/028471 A1