

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
1 September 2005 (01.09.2005)

PCT

(10) International Publication Number
WO 2005/080309 A1

(51) International Patent Classification⁷: **C07C 51/353**,
53/23, 59/56, 319/14, 319/16, 323/61, 315/02, 317/44

(21) International Application Number:
PCT/GB2005/000544

(22) International Filing Date: 16 February 2005 (16.02.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/546,343 20 February 2004 (20.02.2004) US

(71) Applicants (for all designated States except US): **MERCK SHARP & DOHME LIMITED** [GB/GB]; Hertford Road, Hoddesdon Hertfordshire EN11 9BU (GB). **MERCK & CO. INC.** [US/US]; 126 East Lincoln Avenue, Rahway, NJ 07065 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **BRANDS, Karel, Marie, Joseph** [US/US]; Merck & Co., Inc., 126 East Lincoln Avenue, Rahway, NJ 07065 (US). **BREWER, Sarah, Elizabeth** [GB/GB]; MSD, Hertford Road, Hoddesdon Hertfordshire EN11 9BU (GB). **DAVIES, Antony, John** [GB/GB]; MSD, Hertford Road, Hoddesdon Hertfordshire EN11 9BU (GB). **DOLLING, Ulf, H.** [DE/US]; Merck & Co., Inc., 126 East Lincoln Avenue, Rahway, NJ 07065 (US). **HAMMOND, Deborah, Camille** [GB/GB]; MSD, Hertford Road, Hoddesdon Hertfordshire EN11 9BU

(GB). **LIEBERMAN, David, Ross** [US/GB]; MSD, Hertford Road, Hoddesdon Hertfordshire EN11 9BU (GB). **SCOTT, Jeremy, Peter** [GB/GB]; MSD, Hertford Road, Hoddesdon Hertfordshire EN11 9BU (GB).

(74) Agent: **BUCHAN, Gavin, MacNicol**; Mathys & Squire, 120 & Aquire, London EC1N 2SQ (GB).

(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.

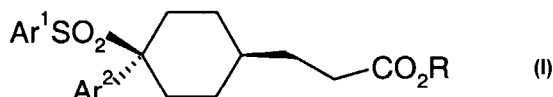
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, 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).

Published:

— with international search report

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: STEREOSELECTIVE SYNTHESIS OF A 4,4-DISUBSTITUTED CYCLOHEXANEPROPANOIC ACID



(57) Abstract: There is provided a stereoselective route to a compound of formula (1): wherein R represents H or an alkali metal, Ar¹ represents 4-chlorophenyl and Ar² represents 2,5-difluorophenyl.

WO 2005/080309 A1