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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
8 December 2005 (08.12.2005)

PCT

(10) International Publication Number
WO 2005/115382 A1

(51) International Patent Classification[7]: A61K 31/415, 31/454, A61P 29/00, 43/00

(21) International Application Number: PCT/EP2005/005884

(22) International Filing Date: 30 May 2005 (30.05.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

0412198.4	29 May 2004 (29.05.2004)	GB
0414196.6	24 June 2004 (24.06.2004)	GB
0424018.0	29 October 2004 (29.10.2004)	GB

(71) Applicant *(for all designated States except US)*: **7TM PHARMA A/S** [DK/DK]; Fremtidsvej 3, DK-2970 Hoersholm (DK).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **ULVEN, Trond** [NO/DK]; 7TM Pharma A/S, Fremtidsvej 3, DK-2970 Hoersholm (DK). **FRIMURER, Thomas** [DK/DK]; 7TM Pharma A/S, Fremtidsvej 3, DK-2970 Hoersholm (DK). **RIST, Øystein** [NO/DK]; 7TM Pharma A/S, Fremtidsvej 3, DK-2970 Hoersholm (DK). **KOSTENIS, Evi** [DE/DK]; 7TM Pharma A/S, Fremtidsvej 3, DK-2970 Hoersholm (DK). **HÖGBERG, Thomas** [SE/SE]; 7TM Pharma A/S, Fremtidsvej 3, DK-2970 Hoersholm (DK). **RECEVEUR, Jean-Marie** [FR/DK]; 7TM Pharma A/S, Fremtidsvej 3, DK-2970 Hoersholm (DK). **GRIMSTRUP, Marie** [NO/DK]; 7TM Pharma A/S, Fremtidsvej 3, DK-2970 Hoersholm (DK).

(74) Agent: **WALLS, Alan, James**; PO Box 223, Tadworth, Surrey KT20 5SS (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, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, 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).

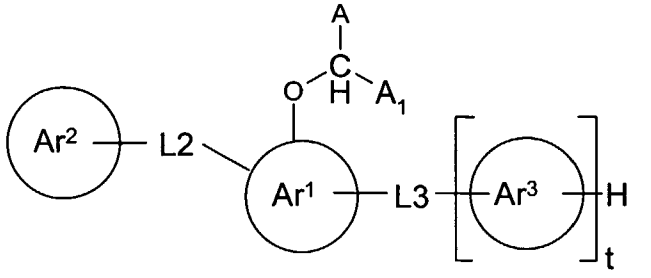
Published:

— *with international search report*

— *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: CRTH2 RECEPTOR LIGANDS FOR MEDICINAL USES



(I)

(57) Abstract: Compounds of formula (I) are useful for the treatment of disease responsive to modulation of CRTH2 receptor activity, such as asthma, rhinitis, allergic airway syndrome, and allergic rhinobronchitis, wherein A represents a carboxyl group -COON, or a carboxyl bioisostere; A_1, is hydrogen or methyl; ring Ar^1 is an optionally substituted phenyl ring 5-or 6-membered monocyclic heteroaryl ring, in which AA_1CHO- and L2 are linked to adjacent ring atoms; rings Are^2, Ar^3 each independently represent a phenyl or 5- or 6-membered monocyclic heteroaryl ring, or a bicyclic ring system consisting of a 5- or 6-membered carbocyclic or heterocyclic ring which is benz-fused or fused to a 5- or 6-membered monocyclic heteroaryl ring, said ring or ring system being optionally substituted; t is 0 or 1; L2 and L3 are linker radicals as defined in the description.

WO 2005/115382 A1