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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
27 December 2007 (27.12.2007)

PCT

(10) International Publication Number
WO 2007/148806 A1

(51) International Patent Classification:
A61K 9/72 (2006.01) *A61K 31/56* (2006.01)
A61K 31/137 (2006.01) *A61P 11/06* (2006.01)
A61K 31/427 (2006.01) *A61P 11/08* (2006.01)

(21) International Application Number:
PCT/JP2007/062640

(22) International Filing Date: 18 June 2007 (18.06.2007)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/814,545 19 June 2006 (19.06.2006) US

(71) Applicant *(for all designated States except US)*: **OTSUKA PHARMACEUTICAL CO., LTD.** [JP/JP]; 9, Kanda-Tsukasacho 2-chome, Chiyoda-ku, Tokyo, 1018535 (JP).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **MOLFINO, Nestor, A.** [CA/US]; c/o Otsuka Pharmaceutical Development & Commercialization, Inc., 2004 Research Boulevard, RockvilleMaryland, 20850 (US). **SAITO, Kosuke** [JP/US]; c/o Otsuka Pharmaceutical Development & Commercialization, Inc., 100 Overlook Center, Princeton, NJ, 08540 (US). **NAGAMOTO, Hisashi** [JP/JP]; c/o OTSUKA PHARMACEUTICAL CO., LTD., 463-10, Kagasuno, Kawauchi-cho, Tokushima-shi, Tokushima, 7710192 (JP).

(74) Agents: **ASAMURA, Kiyoshi** et al.; Room 331, New Ohtemachi Bldg., 2-1, Ohtemachi 2-chome, Chiyoda-ku, Tokyo 1000004 (JP).

(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, 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, 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, HU, IE, IS, IT, LT, LU, LV, MC, MT, 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.

WO 2007/148806 A1

(54) **Title:** METHODS OF USING A THIAZOLE DERIVATIVE

(57) **Abstract:** This invention relates to a method of treating a disease, disorder, or condition in a patient comprising administering to a patient a therapeutically effective amount of a thiazole derivative, tetomilast. The invention further relates to the administration of at least one beta2-adrenergic receptor agonist, with tetomilast for treating a disease, disorder, or condition. The invention further relates to the administration of an anti-inflammatory steroid, with tetomilast and at least one beta2-adrenergic receptor agonist for treating a disease, disorder, or condition.