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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
18 January 2007 (18.01.2007)

PCT

(10) International Publication Number
WO 2007/008704 A3

(51) International Patent Classification:
A61K 38/04 (2006.01) *A61K 51/08* (2006.01)

(21) International Application Number:
PCT/US2006/026586

(22) International Filing Date: 10 July 2006 (10.07.2006)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/697,779 8 July 2005 (08.07.2005) US
60/748,850 9 December 2005 (09.12.2005) US

(71) Applicant *(for all designated States except US)*: **SOCIETE DE CONSEILS DE RECHERCHES ET D'APPLICATIONS SCIENTIFIQUES S.A.S.** [FR/FR]; 51, 53 rue du Docteur Blanche, F-75016 Paris (FR).

(71) Applicants and
(72) Inventors: **DONG, Zheng, Xin** [US/US]; 66 Fairview Street, Holliston, MA 01746 (US). **MOREAU, Jacques-Pierre** [US/US]; 159 Westboro Road, Upton, MA 01568 (US).

(74) Agents: **MORRILL, Brian, R.** et al.; BIOMEASURE, INCORPORATED, 27 Maple Street, Milford, MA 01757-3650 (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, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, 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, 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).

Declarations under Rule 4.17:
— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*
— *of inventorship (Rule 4.17(iv))*

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*

(88) Date of publication of the international search report:
11 October 2007

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: MELANOCORTIN RECEPTOR LIGANDS

(57) Abstract: The present invention is directed to compounds according to formula, (R^2R^3)-A^1-c(A^2-A^3-A^4-A^5-A^6-A^7-A^8-A^9)-A^{10}-R^1, and pharmaceutically-acceptable salts thereof that act as ligands for one or more of the melanocortin receptors, to methods of using such compounds to treat mammals and to pharmaceutical compositions comprising said compounds.

WO 2007/008704 A3