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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
1 July 2010 (01.07.2010)

PCT

(10) International Publication Number
WO 2010/072338 A1

(51) International Patent Classification:
C07D 453/02 (2006.01) *A61K 31/439* (2006.01)
C07D 211/46 (2006.01) *A61P 11/08* (2006.01)
C07D 207/12 (2006.01) *A61K 31/4465* (2006.01)
C07D 211/42 (2006.01) *A61K 31/401* (2006.01)
C07D 451/10 (2006.01)

(21) International Application Number:
PCT/EP2009/008870

(22) International Filing Date:
11 December 2009 (11.12.2009)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
08172818.0 23 December 2008 (23.12.2008) EP

(71) Applicant *(for all designated States except US)*: **CHIESI FARMACEUTICI S.P.A.** [IT/IT]; Via Palermo, 26/A, I-43100 Parma (IT).

(72) Inventors; and
(75) Inventors/Applicants *(for US only)*: **CALIGIURI, Antonio** [IT/IT]; Via Palermo, 26/A, I-43100 Parma (IT). **RICCABONI, Mauro** [IT/IT]; Via Palermo, 26/A, I-43100 Parma (IT). **AMARI, Gabriele** [IT/IT]; Via Palermo, 26/A, I-43100 Parma (IT).

(74) Agents: **MINOJA, Fabrizio** et al.; Bianchetti Bracco Minoja S.r.l., Via Plinio 63, I-20129 Milano (IT).

(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, 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, PE, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, 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, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— *with international search report (Art. 21(3))*

WO 2010/072338 A1

(54) Title: ALKALOID AMINOESTER DERIVATIVES AND MEDICINAL COMPOSITION THEREOF

(57) Abstract: The present invention relates to alkaloid aminoester derivatives acting as muscarinic receptor antagonists, to methods of preparing such derivatives, to compositions comprising them and therapeutic use thereof.