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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
1 March 2012 (01.03.2012)

PCT

(10) International Publication Number
WO 2012/025123 A1

(51) **International Patent Classification**:
A61K 31/495 (2006.01) ***A61P 25/00*** (2006.01)

(21) **International Application Number**:
PCT/DK2011/050317

(22) **International Filing Date**:
22 August 2011 (22.08.2011)

(25) **Filing Language**: English

(26) **Publication Language**: English

(30) **Priority Data**:
61/375,885 23 August 2010 (23.08.2010) US
PA201000739 23 August 2010 (23.08.2010) DK

(71) **Applicant** *(for all designated States except US)*: **H. LUNDBECK A/S** [DK/DK]; Ottiliavej 9, DK-2500 Valby (DK).

(72) **Inventors; and**
(75) **Inventors/Applicants** *(for US only)*: **DRAGHEIM, Marianne** [DK/DK]; Troldager 2, DK-2950 Vedbæk (DK). **FLOREA, Ioana** [RO/DK]; Engløkken 16, DK-2791 Dragør (DK).

(74) **Common Representative**: **H. LUNDBECK A/S**; Corporate Patents and Trademarks, Ottiliavej 9, DK-2500 Valby (DK).

(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, QA, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, 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, LR, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AL, 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, RS, 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 2012/025123 A1

(54) **Title**: THERAPEUTIC USES OF 1-[2-(2,4-DIMETHYL-PHENYLSULFANYL)PHENYL]PIPERAZINE

(57) **Abstract**: The invention provides new therapeutic uses of 1-[2-(2,4-dimethyl-phenylsulfanyl)phenyl]- piperazine and pharmaceuticallyacceptable salts thereof.