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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
9 August 2012 (09.08.2012)

WIPO | PCT

(10) International Publication Number
WO 2012/104869 A1

(51) **International Patent Classification**:
A61P 3/00 (2006.01) *A61K 31/40* (2006.01)

(21) **International Application Number**:
PCT/IN2012/000069

(22) **International Filing Date**:
30 January 2012 (30.01.2012)

(25) **Filing Language**: English

(26) **Publication Language**: English

(30) **Priority Data**:
257/MUM/2011 31 January 2011 (31.01.2011) IN

(71) **Applicant** *(for all designated States except US)*: **CADILA HEALTHCARE LIMITED** [IN/IN]; Zydus Tower, Satellite Cross Roads, Ahmedabad 380015, Gujarat (IN).

(72) **Inventors; and**

(75) **Inventors/Applicants** *(for US only)*: **GAMBHIRE, Dhiraj** [IN/IN]; Cadila Healthcare Limited, Zydus Tower, Satellite Cross Roads, Ahmedabad 380015, Gujarat (IN). **JANI, Rajendrakumar Hariprasad** [IN/IN]; Cadila Healthcare Limited, Zydus Tower, Satellite Cross Roads, Ahmedabad 380015, Gujarat (IN). **PANDEY, Bipin** [IN/IN]; Cadila Healthcare Limited, Zydus Tower, Satellite Cross Roads, Ahmedabad 380015, Gujarat (IN). **SATA, Kaushik** [IN/IN]; Cadila Healthcare Limited, Zydus Tower, Satellite Cross Roads, Ahmedabad 380015, Gujarat (IN). **KOTHARI, Himanshu** [IN/IN]; Cadila Healthcare Limited, Zydus Tower, Satellite Cross Roads, Ahmedabad 380015, Gujarat (IN). **PATEL, Pankaj Ramanbhai** [IN/IN]; Cadila Healthcare Limited, Zydus Tower, Satellite Cross Roads, Ahmedabad 380015, Gujarat (IN).

(74) **Agents**: **SUBRAMANIAM, Hariharan** et al.; Subramaniam, Nataraj & Associates, E- 556, Greater Kailash-II, New Delhi 110048 (IN).

(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, RW, 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, RW, 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).

Declarations under Rule 4.17:

— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*

Published:

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

WO 2012/104869 A1

(54) **Title**: TREATMENT FOR LIPODYSTROPHY

(57) **Abstract**: The present invention provides a therapeutic compound of formula (I) and their pharmaceutically acceptable salts for the prevention and treatment of lipodystrophy caused because of HIV infection or combination therapy of HIV-1 protease inhibitors (Pis) and/or reverse transcriptase inhibitors (nRTIs) by neutralizing lipohypertrophy, lipoatrophy and metabolic abnormalities in HIV patient.