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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
25 February 2010 (25.02.2010)

PCT

(10) International Publication Number
WO 2010/020970 A1

(51) **International Patent Classification**:
A61K 9/20 (2006.01) *A61K 45/06* (2006.01)
A61K 31/198 (2006.01) *A61P 25/16* (2006.01)

(21) **International Application Number**:
PCT/IB2009/053699

(22) **International Filing Date**:
22 August 2009 (22.08.2009)

(25) **Filing Language**: English

(26) **Publication Language**: English

(30) **Priority Data**:
1779/MUM/2008 22 August 2008 (22.08.2008) IN

(71) **Applicant** *(for all designated States except US)*: **WOCKHARDT RESEARCH CENTRE** [IN/IN]; D-4, MIDC Industrial Area, Chikalthana, Aurangabad 431210 (IN).

(72) **Inventors; and**

(75) **Inventors/Applicants** *(for US only)*: **GUPTA, Yatendra Kumar** [IN/IN]; Plot No. 80, Sector-G, N-4, CIDCO, Aurangabad 431003 (IN). **JAIN, Girish Kumar** [IN/IN]; 4-Sharda Niketan, Teachers' Colony, Pitam Pura, Delhi 110034 (IN). **TALWAR, Munish** [IN/IN]; Flat No.3, Group Housing Society No 37, Sector 20, Panchkula, Haryana (IN). **MASHALKAR, Manoj** [IN/IN]; c/o M.B.Mashalkar, M.U.Mahavidyalaya, Udgir, Latur 413517, Maharashtra (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, 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 2010/020970 A1

(54) **Title**: SINGLE UNIT ORAL DOSE PHARMACEUTICAL COMPOSITION COMPRISING LEVODOPA, CARBIDOPA AND ENTACAPONE OR SALTS THEREOF

(57) **Abstract**: There is provided a single unit oral dose pharmaceutical composition comprising a) levodopa or salts thereof from about 50 mg to about 300 mg in extended release form, b) carbidopa or salts thereof from about 10 mg to about 100 mg in extended release and c) entacapone or salts thereof from about 100 mg to about 1000 mg in immediate release form, optionally with other pharmaceutically acceptable excipients. The invention also relates to process of preparation of such compositions.