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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
7 July 2005 (07.07.2005)

PCT

(10) International Publication Number
WO 2005/061528 A3

(51) International Patent Classification[7]: C07J 63/00

(21) International Application Number:
PCT/EP2004/053475

(22) International Filing Date:
15 December 2004 (15.12.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
03104898.6 22 December 2003 (22.12.2003) EP

(71) Applicant *(for all designated States except US)*: **AKZO NOBEL N.V.** [NL/NL]; Velperweg 76, NL-6824 BM Arnhem (NL).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **VAN DER LOUW, Jaap** [NL/NL]; N.V. Organon, P.O. Box 20, NL-5340 BH Oss (NL). **LEYSEN, Dirk** [BE/BE]; Elvire Boelenstraat 7, B-9160 Lokeren (BE). **GROOTENHUIS, Arij, Jan** [NL/NL]; N.V. Organon, P.O. Box 20, NL-5340 BH Oss (NL). **DE GOOIJER, Marcel, Evert** [NL/NL]; N.V. Organon, P.O. Box 20, NL-5340 BH Oss (NL).

(74) Agent: **VAN DEN BROEK, Ludovicus, A., G., M.**; N.V. Organon, Global Patent Department, P.O. Box 20, NL-5340 BH Oss (NL).

(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, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, 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, 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).

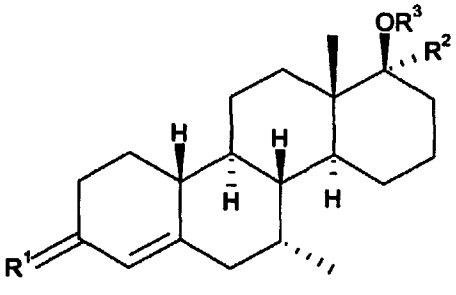
Published:
— *with international search report*
— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

(88) Date of publication of the international search report:
9 September 2005

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.

WO 2005/061528 A3

(54) Title: STEROIDS HAVING A MIXED ANDROGENIC AND PROGESTAGENIC PROFILE



(I)

(57) Abstract: This invention provides 19-nor-D-homosteroids, having a mixed androgenic/progestagenic profile, which are orally active, prevent trabecular bone mineral density (BMD) loss, and which lack liver toxicity, having a structure according to the formula (I) wherein, R^1 is O, or NOR, with R being hydrogen, (C_{1-6})alkyl or (C_{1-6})acyl, R^2 is methyl or ethyl, and R^3 is hydrogen or (C_{1-15})acyl.