WORLD ORGANISATION OF INTELLECTUAL PROPERTY
International office

PCT

INTERNATIONAL APPLICATION PUBLISHED PURSUANT TO THE PATENTS COOPERATION TREATY

(51) International patent classification[6]: **C07J 41/00, A61K 31/565, C07J 43/00, A61K 31/58, C07J 31/00**	**A1**	(11) International publication number: **WO 99/25725** (43) International publication date: 27 May 1999 (27.05.99)

(21) International application number: PCT/FR98/02437

(22) Date of international filing: 16 November 1998 (16.11.98)

(30) Priority data:
97/14357 17 November 1997 (17.11.97) FR

(71) Applicant (*for all designated States except US*): HOECHST MARION ROUSSEL [FR/FR]; 1, terrasse Bellini, F-92800 Puteaux (FR)

(72) Inventors, and
(75) Inventors/Applicants (*US only*): NIQUE, François {FR/FR]; 1 bis, rue du Bac, F-94170 Le Perreux sur Marne (FR)

(74) Agent: VIEILLEFOSSE, Jean Claude; Hoechst Marion Roussel, 102, route de Noisy, F-93235 Romainville Cedex (FR)

(81) Designated States: AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GD, GE, HR, HU, ID, IL, IS, JP, KP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, SL, TR, TT, UA, US, UZ, VN, YU, Patent ARIPO (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian Patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM,) European Patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), Patent OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published
With international search report.

(54) Title: NOVEL 19-NOR STERIODS SUBSTITUTED IN POSITION 11β, PREPARATION METHOD AND INTERMEDIATES, APPLICATION AS MEDICINES AND PHARMACEUTICAL COMPOSITIONS CONTAINING THEM

(57) Abstract:
The invention concerns compounds of formula (I) in which: X is a halogen atom; D represents the radical of a pentagonal or hexagonal cycle optionally substituted and optionally unsaturated; R1, R2, R3, R4, X and n are as defined in the description. The invention also concerns the preparation method and intermediate, their application as medicine and the pharmaceutical compositions containing them.