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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
25 November 2004 (25.11.2004)

PCT

(10) International Publication Number
WO 2004/101553 A1

(51) International Patent Classification[7]: C07D 413/14, 401/14, 417/14, 471/04, A61K 31/4184, A61P 7/02, C07D 413/14, 401/12, 451/06, 401/14, 417/14, 413/12, 409/14, 473/08, 495/04

(21) International Application Number:
PCT/EP2004/004750

(22) International Filing Date: 5 May 2004 (05.05.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
03011305.4 19 May 2003 (19.05.2003) EP

(71) Applicant *(for all designated States except US)*: **AVENTIS PHARMA DEUTSCHLAND GMBH** [DE/DE]; Brüningstrasse 50, 65929 Frankfurt (DE).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **NAZARE, Marc** [DE/DE]; Felix-Lahnstein-Str. 4b, 65510 Idstein (DE). **WAGNER, Michael** [DE/DE]; Alte Bergstr. 42a, 64665 Alsbach (DE). **WEHNER, Volkmar** [DE/DE]; Lindenstrasse 1, 97657 Sandberg (DE). **MATTER, Hans** [DE/DE]; Feldbergring 37, 63505 Langenselbold (DE). **URMANN, Matthias** [DE/DE]; Im Sylvaner 4b, 65760 Eschborn (DE). **RITTER, Kurt** [DE/DE]; Gutzkowstrasse 2, 60594 Frankfurt am Main (DE).

(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, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

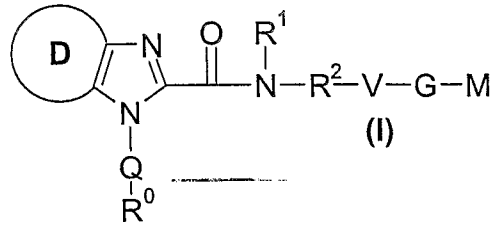
(84) Designated States *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, 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*

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 2004/101553 A1

(54) Title: BENZIMIDAZOLE-DERIVATIVES AS FACTOR Xa INHIBITORS



(I)

(57) Abstract: The present invention relates to compounds of the formula (I), wherein R^0, R^1 , R^2, Q, V, G and M have the meanings indicated in the claims. The compounds of the formula I are valuable pharmacologically active compounds. They exhibit a strong antithrombotic effect and are suitable, for example, for the therapy and prophylaxis of cardiovascular disorders like thromboembolic diseases or restenoses. They are reversible inhibitors of the blood clotting enzymes factor Xa (FXa) and/or factor VIIa (FVIIa), and can in general be applied in conditions in which an undesired activity of factor Xa and/or factor VIIa is present or for the cure or prevention of which an inhibition of factor Xa and/or factor VIIa is intended. The invention furthermore relates to processes for the preparation of compounds of the formula I, their use, in particular as active ingredients in pharmaceuticals, and pharmaceutical preparations comprising them.