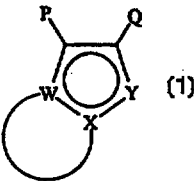
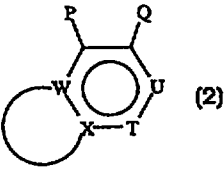
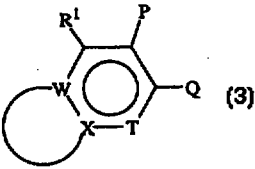
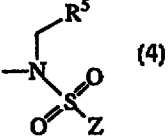




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(21) International Application Number: PCT/US98/07380 (22) International Filing Date: 14 April 1998 (14.04.98) (30) Priority Data: <table border="0"> <tr> <td>08/944,188</td> <td>6 October 1997 (06.10.97)</td> <td>US</td> </tr> <tr> <td>09/055,856</td> <td>6 April 1998 (06.04.98)</td> <td>US</td> </tr> </table> (71) Applicant: AMERICAN CYANAMID COMPANY [US/US]; Five Giralda Farms, Madison, NJ 07940-0874 (US). (72) Inventors: LEVIN, Jeremy, Ian; 190 Treetop Circle, Nanuet, NY 10954 (US). ZASK, Arie; 200 Central Park South, New York, NY 10019 (US). GU, Yansong; 82 North Magnolia Avenue, Pearl River, NY 10965 (US). ALBRIGHT, Jay, Donald; 5 Clifford Court, Nanuet, NY 10954 (US). DU, Xuemei; 130 Sierra Vista Lane, Valley Cottage, NY 10989 (US).		08/944,188	6 October 1997 (06.10.97)	US	09/055,856	6 April 1998 (06.04.98)	US	(74) Agents: ALICE, Ronald, W.; American Home Products Corporation, Patent Law Dept. - 2B, One Campus Drive, Parsippany, NJ 07054 (US) et al. (81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, ARIPO patent (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), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG). Published With international search report.
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(54) Title: THE PREPARATION AND USE OF ORTHO-SULFONAMIDO BICYCLIC HETEROARYL HYDROXAMIC ACIDS AS MATRIX METALLOPROTEINASE AND TACE INHIBITORS								
(57) Abstract This invention provides, low molecular weight, non-peptide inhibitors of matrix metalloproteinases and TNF-α converting enzyme (TACE, tumor necrosis factor-α converting enzyme) of formula (B) wherein (B) is (1), (2), or (3); P and Q are (4) or (5), provided that when P is (4), Q is (5), and vice versa; T, U, W, and X are each, independently, carbon or nitrogen, provided that when T or U is carbon, either may be optionally substituted with R¹; Y is carbon, nitrogen, oxygen or sulfur, provided that at least one of T, U, W, X, and Y is not carbon, and further provided that no more than 2 of T, U, W, and X are nitrogen; (6) is a phenyl ring or is a heteroaryl ring of ring 5-6 atoms which may contain 0-2 heteroatoms selected from nitrogen, oxygen, and sulfur, in addition to any heteroatoms defined by W or X; wherein the phenyl or heteroaryl ring may be optionally mono-, di-, or tri- substituted with R¹; Z is a phenyl, naphthyl, heteroaryl, or heteroaryl fused to phenyl, wherein the heteroaryl moiety contains of 5-6 ring atoms and 1-3 heteroatoms selected from nitrogen, oxygen, or sulfur; wherein the phenyl, naphthyl, heteroaryl, or phenyl fused heteroaryl moieties may be optionally mono-, di-, or tri- substituted with R¹; R¹ is hydrogen, halogen, alkyl of 1-8 carbon atoms, alkenyl of 2-6 carbon atoms, alkynyl of 2-6 carbon atoms, cycloalkyl of 3-6 carbon atoms, -(CH₂)_nZ, -OR², -CN, -COR², perfluoroalkyl of 1-4 carbon atoms, -CONR²R³, -S(O)₂R²-OPO(OR²)OR³, -PO(OR²)R³, -OC(O)NR²R³, -COOR², -CONR²R³, -SO₂H, -NR²R³, -NR²COR³, -NR²COOR³, -SO₂NR²R³, -NR²CONR²R³, -NR²C(=NR³)NR²R³, -SO₂NHCOR⁴, -CONHSO₂R⁴, -tetrazol-5-yl, -SO₂NHCN, -SO₂NHCONR²R³, or Z; V is a saturated or partially unsaturated heterocycloalkyl ring of 5-7 ring atoms having 1-3 heteroatoms selected from N, O, or S, which may be optionally mono-, or di- substituted with R²; R² and R³ are each, independently, hydrogen, alkyl of 1-8 carbon atoms, alkenyl of 2-6 carbon atoms, alkynyl of 2-6 carbon atoms, cycloalkyl of 3-6 carbon atoms; perfluoroalkyl of 1-4 carbon atoms, Z or V; R⁴ is alkyl of 1-8 carbon atoms, alkenyl of 2-6 carbon atoms, alkynyl of 2-6 carbon atoms, cycloalkyl of 3-6 carbon atoms; perfluoroalkyl of 1-4 carbon atoms, Z or V; R⁵ is hydrogen, alkyl of 1-8 carbon atoms, alkenyl of 2-6 carbon atoms, alkynyl of 2-6 carbon atoms, Z, or V; n = 1-6; x = 0-2 or a pharmaceutically acceptable salt thereof.  (1)  (2)  (3)  (4)  (5)  (6)								