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(21) International Application Number: PCT/US99/01663 (22) International Filing Date: 27 January 1999 (27.01.99) (30) Priority Data: 60/072,719 27 January 1998 (27.01.98) US (71) Applicant: ICAGEN, INC. [US/US]; Suite 460, 4222 Emperor Boulevard, Research Triangle Park, NC 27703 (US). (72) Inventors: GROSS, Michael, F.; 1726 Vista Street, Durham, NC 27701 (US). CASTLE, Neil, A.; 116 Canyon Run, Cary, NC 27513 (US). (74) Agents: SKERPON, Joseph, M. et al.; Banner & Witcoff, Ltd., 11th floor, 1001 G Street, N.W., Washington, DC 20001-4597 (US).		(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, 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, 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, GW, ML, MR, NE, SN, TD, TG). Published With international search report. With amended claims.
(54) Title: POTASSIUM CHANNEL INHIBITORS		
(57) Abstract Compounds of general formula (I) wherein t is 1 or 2; A and B are each H or taken together form a bond between the substituted carbons; R¹ is H, alkyl or is selected from the group consisting of an optionally substituted aryl, an optionally substituted heteroaryl, an optionally substituted heterocyclyl and an optionally substituted carbocycloalkyl; Y² is O, (CH₂)_q, HC=CH or NH, w is 0, 1 or 2, q is 0, 1 or 2; X² is C=O, C=S or SO₂; R³ is H, alkyl, an optionally substituted aryl, an optionally substituted aralkyl, an optionally substituted heteroaryl, an optionally substituted heteroalkyl, an optionally substituted heterocycle, an optionally substituted heterocyclyl, an optionally substituted carbocycloalkyl, or an alkylene-(substituted amino); Z is in particular H or OH; R² is selected from the group consisting of H, alkyl, an optionally substituted aryl, an optionally substituted aralkyl, an optionally substituted heteroaryl, an optionally substituted heterocyclyl, an optionally substituted heteroalkyl, an optionally substituted carbocycloalkyl, R^a-O- and R^bR^c-N-; Y¹ is (CH₂)_p, CHR¹⁷(CH₂)_o, HC=CH or ethynyl, p is 0, 1, 2 or 3, o is 0, 1 or 2; X¹ is C=O, C=S, SO₂ or (CH₂)_n, n is 0, 1 or 2; R⁴ is H, alkyl, an optionally substituted aryl, an optionally substituted aralkyl, an optionally substituted heteroaryl, an optionally substituted heteroalkyl, an optionally substituted heterocycle, an optionally substituted heterocyclyl, an optionally substituted carbocycloalkyl, or an alkylene-(substituted amino); or pharmaceutically acceptable salts or prodrugs thereof are useful as potassium channel inhibitors and especially useful for the treatment of cardiac arrhythmias and cell proliferative disorders. (I)		