



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

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| <b>(51) International Patent Classification <sup>7</sup> :</b><br><br><b>C07D 307/00</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <b>A2</b> | <b>(11) International Publication Number:</b> <b>WO 00/34261</b><br><br><b>(43) International Publication Date:</b> 15 June 2000 (15.06.00)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>(21) International Application Number:</b> PCT/US99/28916<br><br><b>(22) International Filing Date:</b> 6 December 1999 (06.12.99)<br><br><b>(30) Priority Data:</b><br>09/208,164      9 December 1998 (09.12.98)      US<br><br><b>(71) Applicant:</b> AMERICAN HOME PRODUCTS CORPORATION [US/US]; Five Giralda Farms, Madison, NJ 07940-0874 (US).<br><br><b>(72) Inventors:</b> BLOOM, Jonathan, David; Apartment 4P, 103 Gedney Street, Nyack, NY 10960 (US). CURRAN, Kevin, Joseph; Apartment 6, 80 Burd Street, Nyack, NY 10960 (US). DIGRANDI, Martin, Joseph; 4 Garnet Lane, Congers, NY 10920 (US). DUSHIN, Russell, George; 667 Route 9D, Garrison, NY 10524 (US). JONES, Thomas, Richard; 4 Fieldcrest Drive, New City, NY 10956 (US). LANG, Stanley, Albert; 7 Colony Drive, Blauvelt, NY 10913 (US). ROSS, Adma, Antonia; 65 Campbell Avenue, Suffern, NY 10901 (US). TEREFEFENKO, Eugene, Anthony; 266 Live Oak Drive, Quakertown, PA 18951 (US). O'HARA, Bryan, Mark; 124 Railroad Avenue, Pearl River, NY 10965 (US). |           | <b>(74) Agents:</b> BARRETT, Rebecca, R.; American Home Products Corporation, Patent Law Department -2B, One Campus Drive, Parsippany, NJ 07054 (US) et al.<br><br><b>(81) Designated States:</b> AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, 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, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, 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).<br><br><b>Published</b><br><i>Without international search report and to be republished upon receipt of that report.</i> |
| <b>(54) Title:</b> HETEROCYCLIC CARBOXAMIDE-CONTAINING THIOUREA INHIBITORS OF HERPES VIRUSES CONTAINING A SUBSTITUTED PHENYLENEDIAMINE GROUP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <div style="text-align: center;"> </div> <div style="text-align: right;">(I)</div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>(57) Abstract</b><br><br><p>Compounds of formula (I) wherein R1-R5 are independently selected from hydrogen, or substituents R9-R12 are independently hydrogen, or substituents provided that at least one of R9-12 is not hydrogen; G is a monocyclic heteroaryl; X is a bond, -NH, alkyl of 1 to 6 carbon atoms, alkenyl of 1 to 6 carbon atoms, alkoxy of 1 to 6 carbon atoms, or thioalkyl of 1 to 6 carbon atoms, alkylamino of 1 to 6 carbon atoms, or (CH)J; J is alkyl of 1 to 6 carbon atoms, cycloalkyl of 3 to 7 carbon atoms, phenyl or benzyl, useful in the treatment of diseases associated with herpes viruses including human cytomegalovirus, herpes simplex viruses, Epstein-Barr virus, varicella-zoster virus, human herpesviruses-6 and -7, and Kaposi herpesvirus.</p>                                                                                                                                                                                                                                          |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |