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### Single Dose Efficacy of 2'-fluorodGuo in the Mouse and Ferret Influenza Models

M. Tisdale\*, D. Lowe\*, J. Stables\*, K. J. Jakeman#, and C. Sweet#

\* Department of Molecular Sciences, The Wellcome Research Laboratories, Beckenham, BR3 3BS, UK.. # School of Biological Sciences, University of Birmingham, Birmingham B15 2TT, UK.

2'-fluorodGuo was evaluated for efficacy in the mouse model against the mouse adapted strain A/Sweden3/50(H1N1) when given as a single dose 1h after infection either orally (40mg/kg) or by aerosol (50mg/ml solution nebulized for 10mins). Activity was determined by reductions in the mouse lung virus titres 24h after infection. 2'-fluorodGuo gave a 3-4 log reduction in virus growth when given by either route and was significantly more effective than amantadine administered in the same way. The plasma half life of 2'-fluorodGuo was only 0.5-1h, however, intracellularly the mono, di, and triphosphates were shown to be formed rapidly in the mouse lung tissue with the triphosphate peaking at 5-7h after infection. Similarly in the ferret infected with unadapted clone 7a (H<sub>3</sub>N<sub>2</sub>) of the reassortment influenza virus A/Puerto Rico/8/34 and A/England/939/69, a single dose of 2'-fluorodGuo at 40mg/kg given ip 1h after infection, reduced virus titre by >2 logs in both the upper and lower respiratory tract and ameliorated fever and other signs of infection.

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The New Adamantane Derivative Inhibiting DNA-viruses Reproduction. E.I.Boreko, O.T.Andreeva, G.V.Vladko, S.N.Nikolaeva, Yu.N.Klimochkin, L.V.Korobchenko, V.A.Rusyaev, E.A.Izergina, I.K.Moiseev, V.I.Votyakov. Byelorussian Research Institute for Epidemiology & Microbiology, Minsk, Republic of Byelarus

The antiviral effect was determined in monolayer cultures of primary chicken embryos cells infected with herpes simplex virus type 1 (HSV) or vaccine virus (VV) and human embryos kidney cells infected with adenovirus type 3. The new compound was more effective as compared with tromantadine for HSV and effectively inhibited VV, adenovirus and acycloguanosine(ACG)-resistant HSV. The new adamantane derivative decreased mortality of animals (mice), infected of HSV and ACG-resistant HSV by 60 - 70% at ED<sub>50</sub> of 79,63 - 166,63 mg/kg. When viruses were inoculated intraperitoneally, it showed more higher mortality protection. The studied substance when applied as a 1 - 3% ointment, suppressed development of herpes simplex keratitis and promoted healing of established keratitis at the compatible rate. Combined action of the adamantane derivative and acycloguanosine provides a strong sinergetic effect. It has low toxicity, no mutagenicity and teratogenicity. The present data allow to create a new drug.