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An Economical MTT-based *in vitro* Assay System for Bovine Viral Diarrhea Virus (BVDV): a Pestivirus in the family of Flaviviridae. Kirsi, J.J and W. M. Shannon. (Southern Research Institute, Birmingham, AL, USA, 35255).

We report here a rapid, safe and economical assay method for large-scale screening of prospective antiviral compounds against members of the Flaviviridae family, including hepatitis C virus (HCV), by the use of a surrogate BVDV protocol. The assay system is an MTT-based, semi-automated system, with in-house developed computer software programs, which gives a single drug/single virus test report in a single page format. A cytopathic strain of BVDV grows to a high titer in MDBK cells with well defined CPE. MDBK cells readily reduce MTT to formazan, similar to Vero cells, allowing efficient semi-automation. Some of the basic measurements and nomenclature of the software program are as follows: TC= Toxic concentration (TC_{25}; TC_{50}; TC_{95}),measurement of the cytotoxic effect of the drug in uninfected cells. IC=Inhibitory concentration (IC_{25}; IC_{50}; IC_{95}); measurement of the antiviral effect of the drug in virus-infected cells. AI=Antiviral Index = (TC_{50}/IC_{50}); same as therapeutic index (TI). SI=Selectivity Index = (TC_{25}/IC_{50}); AI index at 25% toxicity and 50% antiviral reduction values. TAI=Total Antiviral Index = area between antiviral curve and cytotoxicity curve. These basic antiviral measurements have been used to determine if the test compound has any anti-BVDV potential or not, and if further secondary studies are warranted. In general, the *in vitro* antiviral spectrum and potency profile of BVDV in MDBK cells is comparable in its sensitivity to, if not better than, yellow fever virus (YF) in Vero cells. The results indicate that BVDV is very sensitive to the action of Ribavirin and Selenozofurin. The observed antiviral activity of the test compound can thus be readily compared to the antiviral performance of a control compound such as Ribavirin or Selenozofurin. No BSL-3 safety facilities are needed for BVDV and it is safer to handle than upcoming direct HCV assays. Thus BVDV appears to offer a suitable, safe and economical surrogate antiviral model for HCV and members of the Flaviviridae family.

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THERAPY OF PATIENTS WITH CHRONIC VIRAL INFECTIONS AND PROPHYLA XY OF DISEASES' RECURRENCES BY VACCINES

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Viral infections, which are being persisting through the patients' life (herpes, hepatitis B, AIDS), are characteristic by consequent declining of cell immunity specific reactions' activity. That is why the killed vaccines are suitable for the activation of of the noted reactions. Our 15 - years experiences with commercial vaccine against herpes simplex viruses 1 and 2 demonstrate, that vaccine activates the blasttransformation, but residues lymphocyte migration reactions and keeps the high levels of virus neutrolizung antibodies unaltered. Two vaccinations courses for 3-8 years' period in 114 patients with optalmoherpes made the clinical symptomacy stopped in 63 %, broke down the frequency of recurrances in 27% and showed no effect in 10%. Interferon and its inducers (poludan and ridostin) are very effective, when used together with vaccine. Antivaral drug ribavirin appeared the immunosuppresor for CD-4 lymphocyte receptor's activity, so it would be used to slow down the clinical symptomacy of AIDS.