

58

ANTIVIRAL ACTIVITY OF THE SHS-174 PLANT PREPARATION

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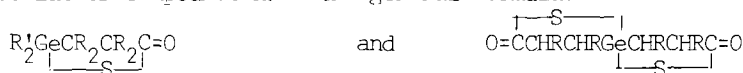
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The SHS-174 preparation, a lyophilized infusion from flowers of *Sambucus nigra* L., aerial parts of *Hypericum perforatum* L., and roots of *Saponaria officinalis* L., exhibited an antiviral effect. It inhibited the reproduction of different strains of influenza virus types A and B both in vitro and in vivo and of herpes simplex virus type 1 in vitro. The antiviral activity was determined by the inhibition of infectious and hemagglutination titres and reached 2.7 log for influenza virus A/H3N2 and 2.4 log for HSV-1. SHS-174 had no virucidal activity, the inhibitory effect was dose-dependent and most pronounced when the substance was inoculated after the viral infection. SHS-174 was applied also in combination with three amantadine derivatives. The combined inhibitory effect on influenza virus reproduction was defined on the base of virus yields and usually was synergistic.

59

The Assessment of the Broad Spectrum In Vitro Antiviral Activity of a Series of Organogermanium Compounds. R.C. Taylor, S.G. Ward, N. Kakimoto, J. Balzarini, and E. De Clercq. Department of Chemistry, Oakland University, Rochester, Michigan, ASAI Germanium Research Institute, 1-6-4 Izumihoncho, Komae-shi, Tokyo, 201 Japan, and the Rega Institute for Medical Research, Katholieke Universiteit Leuven, B-3000 Leuven, Belgium.

2-Carboxyethylgermanium sesquioxide, $(\text{GeCH}_2\text{CH}_2\text{COOH})_2\text{O}_3$ (Ge-132), and 1-phenyl-2-carbamoyl ethylgermanium sesquisulfide, $(\text{GeCH}_2\text{CH}_2\text{CONH}_2)_2\text{S}_3$ (Ge-089) have been reported to exhibit significant antitumor and immunomodulating activities. As part of our continuing interest in the potential antiviral and antitumor activity of inorganic and organometallic compounds, we have investigated these compounds for their broad spectrum in vitro antiviral activity against a variety of DNA and RNA viruses including: herpes simplex virus-1 (KOS), herpes simplex virus-2 (G), vaccinia virus, vesicular stomatitis virus, polio virus-1, sindbis virus, coxsackie virus B-4, semliki forest virus, reovirus-1, parainfluenza-3 virus, and human immunodeficiency virus (HIV-1). In addition to these two immunomodulators, a series (14) of heterocyclic organogermanium-sulfur containing compounds have been evaluated for their potential antiviral activity against this same group of viruses. These latter compounds have the general formulae:



where $\text{R}' = \text{CH}_3$, C_2H_5 and $\text{R} = \text{H}$ and/or CH_3 . The results of this antiviral assessment will be presented.