Poster Session II

Herpesvirus Infections

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Synthesis and Antiviral Activity of Some New S-Adenosyl-L-Homocysteine Derivatives P. Serafinowski 1 , E. Dorland 1 , K.R. Harrap 1 , J. Balzarini 2 and E. De Clercq 2 1 Drug Development Section, Institute of Cancer Research, Sutton, Surrey SM2 5NG, United Kingdom and 2 Rega Institute for Medical Research, Katholieke Universiteit Leuven, B-3000 Leuven, Belgium

A series of new S-adenosyl-L-homocysteine (SAH) derivatives was synthesized *via* condensation of suitably protected L-homocysteine with unprotected nucleoside precursors in the presence of trialkyl phosphine.

COOR₁
| CHCH₂CH₂S
$$\longrightarrow$$
 O B R₁ = alkyl, H R₂ = acyl, H | R₁ = adenin-9-yl, 3-deazaadenin-9-yl, 7-deazaadenin-9-yl, other bases

Some of the carboxyl or amino protecting groups (R_1 or R_2 , respectively) could be removed selectively so that SAH derivatives with a semi-protected amino-acid moiety were obtained. Several compounds displayed selective activity against vaccinia virus, vesicular stomatitis virus and herpes simplex virus. They may exert their antiviral effect via inhibition of the methylation reactions which are responsible for the 5'-capping of viral mRNA.