

European Chemistry Congress

June 16-18, 2016 Rome, Italy

Preparation of biological active steroids

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Aphidicolin is a diterpene and possesses a 1,2-glycol at C-16;C-17 and a 1,3-glycol at C-3;C-18. It is a specific inhibitor of DNA polymerase- α and has attracted much interest because of potentially useful level of antitumor activity. In this study we describe the synthesis of 13 α -methyl and 13 β -methyl steroids in which the functional groups associated with the biological activity of the tumour inhibitor, aphidicolin have been introduced onto the steroid backbone in order to attempt to combine the biological activity of the two classes of compound. The steroids possess a characteristic tetracyclic carbon skeleton. The viridin family of steroidal antibiotics have a furan ring between rings A and B. These compounds have been named systematically as furanosteroids. Recent synthetic and biological studies of the viridin class of steroidal furans have revealed multiple opportunities for fundamental discoveries as well as advanced drug design. In this study we also describe attempts to construct a furan or a tetrahydrofuran ring between rings A and B of cholesterol.

Biography

Sevinc Ilkar Erdagi continues her PhD in Kocaeli University, Turkey under supervisor of Prof. Dr. Cavit Uyanik. She is a Research Assistant in Kocaeli University for five years. She studies organic chemistry especially in steroid chemistry and natural products.

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