Poster Session I

Synthesis, In Vitro Evaluation, Immunomodulators

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Screening of topoisomerase inhibitors for activity against Human Immunodeficiency Virus: Inhibition by coumermycin A1.
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DNA gyrase inhibitors, nalidixic acid, oxolinic acid, norfloxacin, ciprofloxacin, acrosoxacin, coumermycin A1 and novobiocin and the eukaryotic topoisomerase inhibitors, camptothecin, ellipticine, amsacrine, etoposide, teniposide and doxorubicin were screened for their activity against HIV replication in MT-2 cells with the HIV supercoiled DNA form as the proposed target. Of the thirteen compounds tested, the DNA gyrase inhibitor coumermycin A1 was active. This inhibition was observed for two HIV isolates in both MT-2 cells and peripheral blood leukocytes and could not be attributed to cytotoxicity. Coumermycin A1 did not inhibit HIV reverse transcriptase activity in an in vitro assay at concentrations that inhibited HIV replication in infected cells; its precise mechanism of action remains to be elucidated.