Conferenceseries.com 3rd International Conference on BIOPHARMACEUTICS AND BIOLOGIC DRUGS & 5th INTERNATIONAL PHARMACY CONFERENCE August 31-September 01, 2017 Philadelphia, USA

Design, synthesis and biological evaluation of novel antiproliferative agents

Dinesh Kumar Guru Nanak Dev University, India

 $4^{,6-diarylpyrimidones}$ as constrained chalcone analogues have been synthesised in the present study. The synthesised compounds were evaluated against a panel of human cancer cell lines. Striking selectivity was displayed by the compounds against MiaPaCa-2 (Pancreatic) cell lines while PC-3 (prostate) and A-549 (lung) cell lines were almost resistant to the exposure of the test compounds. Compound SK – 25 exhibited remarkable cytotoxicity against MiaPaca-2 cell line with an IC50 value of 1.95 μ M and was found to induce apoptosis evidenced through phase contrast microscopy, DAPI staining and mitochondrial membrane potential loss. The cell phase distribution studies indicated that the apoptotic population increased from 1.79% in control sample to 30.33% in sample treated with 20 μ M compound SK-25.

dinesh_arora_81@yahoo.co.in