Biochem & Pharmacol 2013, 2:4
http://dx.doi.org/10.4172/2167-0501.S1.004

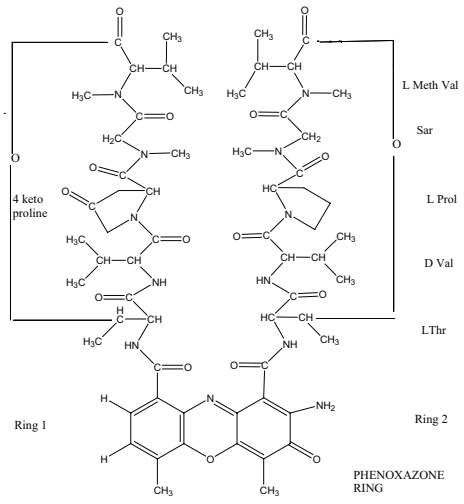
OMICS Group Conferences
Accelerating Scientific Discovery

International Conference and Exhibition on
Pharmacognosy, Phytochemistry & Natural Products
October 21-23, 2013 Radisson Blu Plaza Hotel, Hyderabad, India

Isolation and characterization of actinomycin V and D from a new isolate of *Streptomyces* sp.

Vineeta Singh and C. K. M. Tripathi
CSIR-CDRI, India

A microbial strain showing antibacterial (extra cellular) and antifungal (intra cellular) activity was isolated from a pre-treated soil sample collected from the agricultural field of northern India and was characterized as *Streptomyces capoamus*. From the fermented broth of the culture, three compounds showing antimicrobial activity against various Gram-positive and Gram-negative bacterial cultures and *Mycobacterium tuberculosis* H37Rv were purified and two of them were characterized as actinomycin V and actinomycin D. Actinomycin V was evaluated *in vitro* against *M. tuberculosis* H37Rv by BACTEC radiometric detection system at concentrations ranging from 50 to 1.56 μg ml^{-1}. The MIC of actinomycin V, streptomycin and rifampicin for *M. tuberculosis* H37Rv were found to be 3.125, 2 and .075 μg ml^{-1} respectively. Besides above activities actinomycin V showed some promising activity against *Trichomonas vaginalis* with very low MIC value 10 μg ml^{-1}. This is the first report to mention as *Streptomyces capoamus* producer of actinomycin V and D and antitubercular and antitrichomonas activity of actinomycin V.



Nephro-protective activity of *Ocimum sanctum* aqueous leaf extract on gentamicin induced nephrotoxicity rats

Y. Kranthi
SSJ College of Pharmacy, India

The present study deals with nephrotoxicity in humans and we can use *Ocimum sanctum* plants aqueous leaf extract as nephron protective in kidneys. The purpose of pharmaceuticals research is to develop new drugs. The discovery of medicinal value of foxglove (*Digitalis purpurea*) is the case where traditional herbal knowledge led to major advance in medicine. Phytochemical investigations on plants have not only yielded many compounds of medicinal importance, but have also enriched our knowledge of the subject and understanding of natural products.

The present research work done on gentamicin induced nephrotoxicity rats by doing experimentation. Aminoglycoside antibiotics including gentamicin are widely used in the treatment of gram-negative infections. However the major complication of the use of these drugs is nephrotoxicity, accounting for 10-15% of all cases of acute renal failure. The nephrotoxicity of gentamicin is well established in man & experimental animals. Gentamicin induced nephrotoxicity was ameliorated by various mechanisms among which oxidant mechanism was chosen by us to proceed in expermentation.

The expermetation follows by various steps in nephrotoxicitic rats. Plant's leaves extract of *Ocimum sanctum* is induced in rats and the resultsing disease can be controlled and various factors are shown by comparing creatinine levels and factors required to decrease the nephrotoxicity occurred by using antibiotics.