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

Phytochemical investigation of *Selaginella bryopteris* and evaluation of NO inhibition on RAW 264.7 macrophage

Agrahari U. C, Patel N. K and Bhutani K. K
National Institute of Pharmaceutical Education and Research (NIPER), India

Inflammation is one of the important causes, which are responsible for many diseases like cancer, rheumatoid arthritis, multiple sclerosis, diabetes etc. Pro-inflammatory cytokines (TNF-α, IFN-γ and IL-1β etc.) and NO are considered as pivotal mediators in inflammatory conditions like rheumatoid arthritis, Crohn's disease etc. Thus inhibition of pro-inflammatory cytokines and NO production are important targets for treatment of inflammatory disorders. On the basis of their reported anti-inflammatory activity, several plants were selected and their respective extracts (n-hexane, DCM, EtOAc and MeOH extracts) were subjected for primary screening against pro-inflammatory mediators like TNF-α, IL-1β and NO, done for the above mentioned activity in RAW 264.7 cell line. Among these tested extracts the EtOAc extract of whole plants of *Selaginella bryopteris* were found to have maximum inhibitory activity against NO release. To identify the constituents responsible for the shown activity further phytochemical investigation is carried out which showed the presence of five biflavonoid (namely amentoflavone, hinokiflavone, heveaflavone. bilobetin, sequoiaflavone) and apigenin, luteolin and caffeic acid. Phytochemical investigation of the EtOAc extracts of whole plants of *Selaginella bryopteris* and their *in vitro* screening will be discussed in the poster.

Biography

Agrahari U. C completed his B.Pharm from UPTU Lucknow in 2006 and earned M.S. (Pharm) in Natural Products from NIPER SAS Nagar, Punjab, India in 2008. Currently, he is persuing Ph.D. in Natural Products from NIPER SAS Nagar Punjab, India. He also served as Assistant Professor in LPU Phagwara during 2008-2009 for one year. He has published one international paper in *Natural Product research.*