

International Conference on

# Environmental Toxicology and Pharmacology

February 21-22, 2019 | Paris, France

## Neuroprotective effects of BVSJ-05/06 compounds on Scopolamine Induced Amnesia in experimental rodents

**Smita Jain**


Banasthali Vidyapith, India

**A**lzheimer's disease (AD) is a chronic neurodegenerative disorder that leads to disturbances of cognitive functions. Present study was designed to evaluate the neuroprotective effect of (In-silico derived) BVSJ-05/06 compounds in scopolamine-induced alzheimer albino rats. BVSJ -05 (2.5mg/Kg and 5mg/Kg), BVSJ-06 (5mg/Kg and 10mg/Kg) was orally administered for 7 successive days. Alzheimer was induced at the end of the treatment period by a single injection of scopolamine (0.3 mg/kg; i.p.). Anti-Alzheimer activity was evaluated in radial arm maze assay, water morris maze assay, cross gap assay and olfactory recognition assay in albino rats. In addition, certain inflammatory and oxidative stress markers as well as histopathologic studies were performed. Pre-treatment of with BVSJ-05/06 showed a significant reduction in reference and working memory, transfer latency with elevation in recognition frequency in respective cognition model radial arm maze assay, water morris maze assay,

cross gap assay and olfactory recognition assay. Biochemical markers such as elevation of superoxide dismutase, reduced glutathione and catalase with reduction of AchE level were observed and histopathological study of hippocampus region in rat brain revealed the reversal of neuronal damage in the treatment group ( $P < 0.05$ ) when compared to scopolamine-treated control group. In conclusion, BVSJ-05/06 has demonstrated promising anti-alzheimer like effects and requires in-depth screening to ascertain exact mode of action.

### Speaker Biography

Smita Jain has completed Diploma in MEDICAL IMAGE PROCESSING from Banasthali Vidyapith University. She did Advance Diploma in MEDICAL IMAGE PROCESSING from Banasthali Vidyapith University. She got a Certificate in STASTICAL SOFTWARE from Banasthali Vidyapith. She has received gold medal in her master's research project by Vice Chancellor of Oxford University.

e: [smitajain1994@gmail.com](mailto:smitajain1994@gmail.com) Notes: