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**Educational Qualification:** M. Pharm (Pharmacology & Toxicology)

**Year of Registration:** 2015

**Project Supervisors:**

Supervisor - Dr. B. Duraiswamy

Co-Supervisor - Dr. T. K. Praveen

**Research Abstract :**

As well-known to the scientific community that Alzheimer`s disease is an irreversible neurodegenerative disease that ends up with impairment of memory and cognition due to loss of synapses. Currently we are working with repurposing strategy by incorporating *in silico* methodologies to increase patient quality of life that can be achieved by targeting neurogenesis as a therapeutic paradigm. Preserving functional activity of SDF-1 $\alpha$  and GLP-1 by DPPIV inhibition will enhance the homing of stem cells and modulates cell signaling pathways. This non-invasive approach in terms of chemotaxis can be a considerable strategy for managing AD, as regular / conventional stem-cell therapy necessarily relies on the application of regenerative stem cells exogenously. Using DPP-4 inhibitors to achieve the SDF-1 $\alpha$ /CXCR4 axis stabilization and augmenting GLP-1 levels, will enhance the homing/recruitment of brain resident and non-resident circulating stem cells / progenitor cells toward the sites of lesion to increase synaptic plasticity.

**Fellowships:** Research Associate - Ministry of AYUSH, Govt. of INDIA, New Delhi

**Awards & Scholarships**

- Selected as Research Associate for the ministry of AYUSH project, Govt. of India, New Delhi.

- Best e-poster award during “International Seminar & Exhibition on phytopharmaceuticals: Emerging challenges and opportunities”.

### **Way Forward**

The complex nature of brain and its controlling capability of whole body drags my attention towards research in neuroscience area. In the near future I would like to place myself in a interdisciplinary research team where I can execute repurposing strategy for neurodegenerative disorders by the application of *in silico* methodologies, which can hasten the drug discovery. Apart from developing therapeutic elements, I would like to work also on neuropharmacology aspects especially on involvement of various isomers of PkC in neuroprotective role.