



प्रो. जी. यु. कुलकर्णी
अध्यक्ष

Prof. G. U. Kulkarni FASc, FNASc.
President

Citation

Development of diagnostic and therapeutic tools to tackle Alzheimer's disease and cancer

"Prof. Govindaraju has made outstanding contributions in solving challenging problems related to human health and society by effectively employing innovative ideas of bioorganic chemistry and chemical biology. A novel drug candidate molecule (TGR63) is discovered that has been demonstrated to be effective in notable reduction of amyloid burden in the Alzheimer's disease brain and reverse cognitive decline in animal models. The drug candidate is now taken up for clinical studies by a pharmaceutical company with promise to treat Alzheimer's disease in humans. His work on disease amyloids has led to the development of novel molecular tools that selectively detect Alzheimer's disease and differentiate it from other neuro-degenerative diseases. This technology is being translated through his startup company to develop NIR, PET and retina-based platforms for early diagnosis of Alzheimer's disease. The interest in the inverse relationship between Alzheimer's disease and cancer resulted in the discovery of a first small molecule-based theranostic drug candidate (TGP18) for lung cancer, one of the difficult cancer types to be diagnosed and treated. Efforts to translate this drug candidate are underway. His work on functional amyloids led to development of silk-derived formulations for sustained in vivo insulin delivery, diabetic wound healing, skeletal muscles and stem cell-based neuronal tissue engineering to tackle Alzheimer's disease, a value addition to sericulture industry and farmers. This work further inspired the concept of molecular architectonics which integrates the realms of molecules and derived nano-scale molecular architectures into functional biomaterials."

I strongly recommend Prof. T. Govindaraju for the award of Sun Pharma Science Foundation Research Award

G. U. Kulkarni

Date: 29-09-2021

Place: Bengaluru

जक्कूर, बेंगलुरु - 560064
कर्नाटक, भारत
Jakkur, Bengaluru - 560064
Karnataka, INDIA

+91 80 2208 2752
+91 80 2362 2762

president@jncasr.ac.in

www.jncasr.ac.in

विज्ञान एवं प्रौद्योगिकी विभाग,
भारत सरकार के अधीन
एक स्वायत्त संस्था
मान्यता प्राप्त विश्वविद्यालय

An autonomous institution
under Department of Science and
Technology, Govt. of India.

Deemed-to-be-University