India

HAN-P-33

Govindaraju Thimmaiah

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Research Field(s)	Alzheimer's Disease, Theranostics, Molecular Probes

Academic Career

B.Sc. (1998) and M.Sc (2000), Bangalore University; Ph.D., 2006, National Chemical Laboratory and University of Pune (Advisor: Krishna N. Ganesh); Postdoctoral Training, 2005-2006, University of Wisconsin-Madison (Advisors: Nicholas L. Abbott and Ronald T. Raines); Max Planck Institute of Molecular Physiology (Advisor: Herbert Waldmann), Assistant Professor, 2008-2014, and Associate Professor, 2008-2014 Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR); Professor, 2020-present, JNCASR.

Selected Publications

1. A natural polyphenol activates and enhances GPX4 to mitigate amyloid-β induced ferroptosis in Alzheimer's disease, P. Baruah, H. Moorthy, M. Ramesh, D. Padhi, T. Govindaraju, Chem. Sci. 2023, 14, 9427-9438.

2. Small molecules and conjugates as theranostic agents, S. Pratihar, K. Bhagavath, T. Govindaraju, , RSC Chem. Biol. 2023, 4, 826-849.

3. Multipronged diagnostic and therapeutic strategies for Alzheimer's disease, M. Ramesh and T. Govindaraju, Chem. Sci. 2022, 13, 13657-13689.

4. Rationally designed molecules Synergistically modulate multifaceted Aβ toxicity, microglial activation, and neuroinflammation, M. Ramesh, C. Balachandra, P. Andhare and T. Govindaraju, ACS Chem. Neurosci. 2022, 13, 2209-2221.

5. Combating amyloid-induced cellular toxicity and stiffness by designer peptidomimetics, M. Konar, D. Ghosh, and T. Govindaraju, RSC Chem. Biol. 2022, 3, 220-226.

6. Mechanistic insights to drug repurposing and designing hybrid drugs for Alzheimer's disease, D. Padhi and T. Govindaraju, J. Med. Chem., 2022, 65, 7088-7105.

7. Reliable fluorometric detection of SARS-CoV-2 by targeting the G-quadruplex through pH-triggered conformational polymorphism, S. Pratihar, V. Kumar, R. Agrawal, A. Singh and T. Govindaraju, ACS Sens., 2022, 7, 453-459.

8. Naphthalene monoimide derivative ameliorates amyloid burden and cognitive decline in a transgenic mouse model of Alzheimer's disease, Samanta, et al. Adv. Therap. 2021, 4, 2000225.

Why My Lab?

Our laboratory employs integrated methodologies from both chemistry and biology, utilizing in vitro and in vivo model systems. This approach enables us to investigate novel disease mechanisms and to develop diagnostic, therapeutic, and theranostic tools.