

Dr. Syeda Mehpara Farhat

Associate Professor (TTS)

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Profile

Dr. Syeda Mehpara Farhat is an Assistant Professor of Biological Sciences at the National University of Medical Sciences (NUMS), Pakistan. Her research expertise spans neuroscience, animal model development, and behavioral neuroscience. She focuses on elucidating the cellular and molecular mechanisms underlying learning and memory impairments associated with neurodegenerative disorders. A key component of her work involves investigating the therapeutic potential of herbal and natural products using validated animal models of neurodegeneration. In addition, she has been awarded a research grant to study the role of gut microbiota in the regulation of depression, reflecting her growing interest in the gut–brain axis and its impact on mental health.

Research Interest

Neurodegeneration & Cognitive Decline, Herbal Neurotherapeutics, Gut–Brain Axis & Depression

Selected Publications

Zahoor, M., Farhat, S. M., Khan, S. and Ahmed, T. (2024). Daidzin improves neurobehavioral outcome in rat model of traumatic brain injury. *Behavioural Brain Research*. 472: 115158.

Farhat, S.M., Mahboob, A., and Ahmed, T. (2021). Oral exposure to aluminum leads to reduced nicotinic acetylcholine receptor gene expression, severe neurodegeneration and impaired hippocampus dependent learning in mice. *Drug and Chemical Toxicology*, 44(3):310-318.

Ikram, M.F., Farhat, S.M., Mahboob, A., Baig, S., Yaqinuddin, A., Ahmed, T. (2021). Expression of DnMTs and MBDs in AlCl₃-Induced Neurotoxicity Mouse Model. *Biological Trace Element Research*: 1-12.

Tariq, A., Javed, S., Farhat, S.M., Ahmed, T. (2020). Effects of curcuminoids on cognitive deficits in young audiovisually overstimulated mice. *Food Bioscience*, 35: 100565

Farhat, S. M., and Ahmed, T. (2018). Aluminum Suppresses Effect of Nicotine on Gamma Oscillations (20-40 Hz) in Mouse Hippocampal Slices. *CNS & neurological disorders drug targets*. 17(6):404-411.

Grants/Awards/Achievements

Title	Funding Agency	Funding (in millions PKR)	Status
More than a gut feeling: Unlocking the gut-brain connection in Pakistani students	NRPU-HEC	5.23	Ongoing (PI)
Efficient water management	Karandaaz (UK- Aid)	18	Completed (Co-PI)