



Centre for Research & Development

Research Supervisor (Guide) Profiles

Discipline of Supervision: **Biotechnology**



Dr. Lakshmi Garimella

Associate Professor
Department of Life Sciences
School of Biological and Forensic Sciences

Areas of Specialisation:

Cellular Proteostasis

Dr. Lakshmi Garimella focuses her research on understanding the roles of key cellular pathways and their cross-talk in maintaining cellular proteostasis. Her work emphasizes the screening and identification of small molecules or compounds that can upregulate these pathways, which is crucial for elucidating the mechanisms of proteostasis and exploring their potential therapeutic applications.

Dr. Garimella has contributed 8 international publications, including a book chapter in a Royal Society of Chemistry publication, collectively cited 166 times. Her Ph.D. research was funded by USDA, USA, and she was awarded the WoSA Women Scientist Fellowship by the DST, Government of India for her postdoctoral research, reflecting recognition of her scholarly contributions and scientific excellence.

Selected Publications:

1. SN, S., Pandurangi, J., Murumalla, R., DJ, V., **Garimella, L.**, Acharya, A., ... Manjithaya, R. (2019). Small molecule modulator of autophagy regulates neuroinflammation to curb pathogenesis of neurodegeneration. *EBioMedicine*, 50, 260–273. <https://doi.org/10.1016/j.ebiom.2019.10.036>
2. Yadav, V. K., **Lakshmi, G.**, and Medhamurthy, R. (2005). Prostaglandin F2 α -mediated Activation of Apoptotic Signaling Cascades in the Corpus Luteum during Apoptosis. *Journal of Biological Chemistry*, 280(11), 10357–10367. <https://doi.org/10.1074/jbc.m409596200>
3. Suresh, S. N., Chakravorty, A., Giridharan, M., **Garimella, L.**, and Manjithaya, R. (2020). Pharmacological Tools to Modulate Autophagy in Neurodegenerative Diseases. *Journal of Molecular Biology*, 432(8), 2822–2842. <https://doi.org/10.1016/j.jmb.2020.02.023>