KRISTU JAYANTI
(DEEMED TO BE UNIVERSITY)
Under Section 3 of UGC Act 1956
A CMI INSTITUTION | BENGALURU | INDIA

Centre for Research & Development

Research Supervisor (Guide) Profiles
Discipline of Supervision: Biotechnology / Microbiology

Dr. Kushi Anand
Associate Professor
Department of Life Sciences
School of Biological & Forensic Sciences

Areas of Specialisation:
Host-Pathogen Interaction, Drug resistance, Regulatory
Role of DNA/ RNA Secondary, Non pulmonary tuberculosis, Cancer Biology

Dr. Kushi Anand is an Associate Professor in the Department of Life Sciences at Kristu Jayanti University, Bengaluru. He completed his doctoral studies at VIT University, where he was awarded a Merit Fellowship for his research on biomolecules that suppress cancer angiogenesis, leading to the identification of dietary compounds with anti-tumor properties. His postdoctoral research was supported by the prestigious Dr. D.S. Kothari Fellowship from UGC, as well as the IISc–DBT partnership programme. With over 15 years of research experience spanning cancer biology, infectious diseases, and nucleic acid secondary structures, He has investigated drug resistance and tolerance mechanisms, Fe-S cluster biogenesis in Mycobacterium tuberculosis, and host–pathogen interactions at institutions such as IISc and NCBS. He has published 19 high-impact research papers in reputed journals including Redox Biology, ACS Infectious Diseases, eLife, and PLoS Pathogens, with over 600 citations and an h-index of 13. His expertise in grant writing and project management has enabled him to secure competitive funding from agencies such as the Welcome Trust/DBT India Alliance and UGC, supporting the establishment of independent research programs in infectious diseases. His academic achievements include nomination to attend DELTAS Africa 2019 in Dakar, Senegal, and receiving the EMBO Travel Fellowship to present his research at the Pasteur Institute, France. He is a life member of the Society of Neurochemistry and serves on the advisory board of the Society of Chemical and Synthetic Biology.

Selected Publications:

1. Tripathi, A., **Anand, K.**, Das, M., O'Niel, R. A., P. S, S., Thakur, C., … Singh, A. (2022). Mycobacterium tuberculosis requires SufT for Fe-S cluster maturation, metabolism, and survival in vivo. PLOS Pathogens, 18(4), e1010475. https://doi.org/10.1371/journal.ppat.1010475

2. **Anand, K.**, Tripathi, A., Shukla, K., Malhotra, N., Jamithireddy, A. K., Jha, R. K., … Singh, A. (2021). Mycobacterium tuberculosis SufR responds to nitric oxide via its 4Fe–4S cluster and regulates Fe–S cluster biogenesis for persistence in mice. Redox Biology, 46, 102062. https://doi.org/10.1016/j.redox.2021.102062

3. Chawla, M., Mishra, S., **Anand, K.**, Parikh, P., Mehta, M., Vij, M., Verma, T., Singh, P., Jakkala, K., Verma, H. N., AjitKumar, P., Ganguli, M., Narain Seshasayee, A. S., & Singh, A. (2018). Redox-dependent condensation of the mycobacterial nucleoid by WhiB4. Redox Biology, 19, 116–133. https://doi.org/10.1016/j.redox.2018.08.006