

Date: July 30<sup>th</sup>, 2024

**Citation for Nomination of Dr. Jayanta Halder for SPSF Research Fellowships 2024.**

Prof. Halder has made outstanding contributions in the field of antimicrobial research, contributing to the development of novel therapeutic and preventive strategies. This fellowship is being presented for his research in the field of therapeutics, for development of strategies to tackle antimicrobial resistance and complex infections. He has developed various small molecules that are easy to synthesize and show excellent activity against drug-resistant Gram-positive and Gram-negative bacteria in different in vivo infection models. These rationally designed drug candidates help address antibacterial resistance and chronic infections, including bacterial biofilms and persisters. Additionally, he has developed small molecule adjuvants that can effectively repurpose outdated antibiotics against multidrug-resistant Gram-negative pathogens. He has contributed immensely to development of semisynthetic glycopeptide antibiotics and metallo-beta-lactamase inhibitors, which can tackle vancomycin-resistant pathogens. His research has led to many high-impact publications in peer-reviewed journals, along with many national and international patents. For further translation of the inventions, Dr. Halder is extensively pursuing industrial collaborations. The goal of Dr. Halder's research is to merge basic science with applied research to address a major challenge of 21st century healthcare and society, which is the rapid emergence of antimicrobial resistance, through innovative chemical solutions. His is a name of repute on the global stage in the field of antimicrobial research and resistance. His research has greatly advanced the understanding of antimicrobial resistance and has played a crucial role in the global fight against it.



Prof. Jayanta Halder

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