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Signed Statement from the Applicant (Prof. Jayanta Haldar)

I hereby certify that the research work under the title Antimicrobial peptide mimics as potential drug-candidates for tackling multidrug-resistant superbugs for which this award is being claimed has not received any other award in the past. As the principal investigator and corresponding author, this work has been designed and guided by me, and has led to two PhDs and three MS thesis, with multiple high-impact publications and national and international patents for three inventions. Three PhD students are presently working on different aspects of this research work. I have successfully completed various projects related to this work from SERB-DST, DBT, DST-DAAD. We also have an ongoing project based on antimicrobial peptide mimics for eye infection cure, in collaboration with L. V. Prasad Eye Institute, Hyderabad, funded by DBT. A project on antimicrobial adjuvants funded by SERB is also ongoing. Similarly, a multilateral BRICS-funded project on vancomycin derivatives is ongoing. My main contribution has been in the design and development of the antimicrobial peptide mimicking drug-candidates and adjuvants, data analysis and interpretation, and consequent modification and course-correction. I have also contributed in part to the execution of various experiments and assays. Most of the work has been implemented by my masters and PhD students. Some experimental work related to malarial and Ebola viral infections has been performed through collaborations. Similarly, some of the mechanistic investigations to understand effects on cell wall division have been performed through collaborations. Along with this, computational studies have also been performed through collaboration for some of the drug-candidates, for a better theoretical understanding of membrane-level interactions with mammalian as well as bacterial cell membranes. Currently, various national and international collaborations have been set up for further detailed investigations, both in the experimental and theoretical domain, for these drug-candidates.

Jayanta Haldar
(Applicant)