

BIONE

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Dr. Amitabha Bhattacharjee is an Assistant Professor in the Department of Microbiology, Assam University, Silchar since October 2009. He completed M.Sc. in Applied Microbiology from University of Madras, Chennai in the year 2003. He received Ph.D. degree from Institute of Medical Sciences, Banaras Hindu University, Varanasi in the year 2008 under the supervision of Prof. Malay Ranjan Sen on the topic “*Studies of ESBL producers: Phenotypic and Genotypic characterization*”. Dr. Bhattacharjee has also qualified GATE and CSIR-UGC-NET for JRF. Before joining Assam University, he worked as a lecturer in Guru Nanak Institute of Dental Science and Research, Panihati, West Bengal and as a consultant in the Orchid Research Laboratory, Chennai.

Dr. Bhattacharjee is working in the area of antimicrobial resistance (AMR). After joining Assam University, his research focus was on characterization of the molecular determinants conferring resistance to carbapenems, cephalosporins, aminoglycosides and quinolone group of drugs. He has extensively studied transmission dynamics of resistance genes and the role of integron gene cassettes in horizontal transmission of antimicrobial resistance. He also investigated transcriptional expression of intrinsic and acquired resistance mechanisms and their response against concentration gradient antibiotic stress to get an idea how a pathogen with multiple antimicrobial resistance mechanisms responds when antimicrobial chemotherapy is initiated in a patient. In recent years, he is focussing on identification of pathogen based biomarkers which can be used to predict antimicrobial resistance. He designed two rapid methods for detection of carbapenem and aminoglycoside resistance in Gram-negative bacteria. He is currently working on an Indo-UK joint project on ‘Diagnostics for One Health and User Driven solutions for AMR’. So far, he has received 11 research grants from funding agencies like UGC, DBT, CSIR and SERB.

He is involved in collaborative research with renowned institutions like Banaras Hindu University, IIT Kharagpur, IIT Delhi, University of Edinburgh, University of Southampton and University of Bradford. Dr. Bhattacharjee has published 87 research papers in peer reviewed journals and filed two patent applications. He received Young Investigator Award

from Asia Pacific Foundation for Infectious Diseases, DBT-CREST award and DBT Overseas Associateship from Department of Biotechnology, Govt. of India and ICMR International Fellowship for young Biomedical Scientists. He got the opportunity to do research work in University College, London, UK, Universite Paris-Sud, France and University of Cambridge, UK.

Details of Ph.D. scholars under the supervision of Dr. Amitabha Bhattacharjee

Sl. No.	Name	Title	Status
1.	Anand Prakash Maurya	Molecular characterization of Extended Spectrum Beta- Lactamases and their genetic environment	Awarded
2.	Pranabika Singha	Molecular analysis of gene cassettes and their correlation with phenotypic marker in multidrug resistance enterobacterial isolates	Awarded
3.	Nivedita Dasgupta	Molecular Characterization, Gene Location and Transferability of Quinolone Resistance among Enterobacteriaceae	Awarded
4.	Deepjyoti Paul	A study on carbapenemase producing bacteria: Molecular characterization and genetic environment	Awarded
5.	Birson Ingti	A study on AmpC beta-lactamases: Phenotypic and Genotypic Characterization	Awarded
7.	Nargis Alom Choudhury	Studies on transferability, stability and replicon profiling of resistant plasmid within broad host range in Gram negative bacteria	Awarded
6.	Kathakali Nath	Studies on antimicrobial property of some selected ethnomedicinal ferns of Southern Assam, India	Awarded
8.	Shiela Chetri	Studies on efflux pump mediated carbapenem resistance in <i>Escherichia coli</i>	Awarded
9.	Deepshikha Bhowmik	Studies on methicillin resistant <i>Staphylococcus aureus</i> and their co- existing resistance determinants	Active
10.	Jayalaxmi Wangkheimayum	Studies on high level aminoglycoside resistance in Enterobacteriaceae; phenotypic and genotypic characterization	Active
11.	Rajkumari Elizabeth	Molecular analysis and transmission dynamics of colistin resistance within Enterobacteriaceae family	Active
12.	Bhaskar Jyoti Das	Molecular characterization of carbapenem hydrolysing class D beta- lactamases:	Active

		diversity and transmission dynamics	
13.	Monalisha Hazarika	Studies on vancomycin non-susceptibility in <i>Staphylococcus aureus</i> : Phenotypic and Genotypic characterization	Active
14.	Chandrayee Deshamukhya	Genetic insight into MLS_b resistance in <i>Staphylococcus aureus</i> and identifying a heterogenic resistance marker for diagnostic screening	DBT- JRF

Lab members of Dr. Amitabha Bhattacharjee

