BOUDHAYAN BANDYOPADHYAY, Ph.D.
Associate Professor, Department of Biotechnology, School of Life Science and Biotechnology
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ACADEMIC QUALIFICATIONS

Ph.D. in Biochemistry	University of Calcutta, India	2013
M.Sc. in Chemistry	IIT Kharagpur, India	2006
B.Sc. (Hons), Chemistry	University of Calcutta, India	2004

RESEARCH EXPERIENCE

2020-till date	Independent Principal Investigator, Adamas University, Kolkata, India
2019-2020	Independent Principal Investigator, VIT Bhopal University, Madhya Pradesh, India
2014-2018	Post-doctoral work, Dept. of Structural Biology, Weizmann Institute of Science, Israel Supervisor: Prof. Amnon Horovitz
2007-2013	Ph.D. studies, Dept. of Microbiology, Bose Institute, India Supervisor: Prof. Sujoy K. Das Gupta
2005-2006	M.Sc. studies, Dept. of Chemistry, IIT Kharagpur, India Supervisor: Prof. Swagata Dasgupta

RESEARCH PROJECTS

- "Effects of *Azadirachta indica* and *Camellia sinensis* extracts and their combinations in reducing human axillary malodour" funded by DST-SERB-SRG (SRG/2022/001543). 2022
- "Application of solid solutions of perovskite oxide nanoparticles as alternative to antibiotics" Seed grant (AU/R&D/SEED/32/03-2020-21) – funded by Adamas University, Kolkata, India. 2021

PUBLICATIONS

Srishti Sen, Shubhangi Tiwari, Sinjini Banerjee, Mihir Ghosh, **Boudhayan Bandyopadhyay***. 2024. The underlying factors of occurrence of Mucormycosis in post-COVID-19 patients – A meta-analysis of case histories. ***Journal of Experimental Biology and Agricultural Sciences***. 12(3), 457–497.

Srishti Sen, Priyanka Bhowmik, Shubhangi Tiwari, Yoav Peleg, **Boudhayan Bandyopadhyay***. 2024. Versatility of reverse transcriptase loop-mediated isothermal amplification (RT-LAMP) from diagnosis of early pathological infection to mutation detection in organisms. ***Molecular Biology Reports***. 51, 211

Arkaniva Sarkar, Rushali Agarwal, **Boudhayan Bandyopadhyay***. 2022. Molecular docking studies of phytochemicals from Terminalia chebula for identification of potential multi-target inhibitors of SARS-CoV-2 proteins. **Journal of Ayurveda and Integrative Medicine**. 13 (2), 100557.

Sreerup Banerjee, Shriram Raghunathan, Saubhik Banerjee, **Boudhayan Bandyopadhay***. 2021. Portable sterilizer with microbe content detection device. **Bulletin of the National Research Centre**. 45, 35.

Banibrata Roy, SK Tousif Ahmed, **Boudhayan Bandyopadhay**, Nabanita Giri. 2020. Development of Quinolone resistance and prevalence of different virulence genes among *Shigella flexneri* and *Shigella dysenteriae* in environmental water samples. **Letters in Applied Microbiology.** 71 (1), 86-93

SK Tousif Ahamed, Banibrata Roy, Utpal Basu, Shanta Dutta, A.N Ghosh, **Boudhayan Bandyopadhyay**, Nabanita Giri. 2019. Genomic and proteomic characterizations of *Sfin-1*, a novel lytic phage infecting multidrug-resistant *Shigella spp.* and *Escherichia coli C.* **Frontiers in Microbiology**. 10: 1876

Boudhayan Bandyopadhyay, Tridib Mondal, Ron Unger and Amnon Horovitz. 2019. Contact order is a determinant for the dependence of GFP folding on the chaperonin GroEL. **Biophysical Journal**. 116, 42–48
(*Cited in **Research Highlights, Biophysical Journal,** as one of the influential research works in Protein Folding and IDPs*)

Boudhayan Bandyopadhyay* and Yoav Peleg. 2018. Facilitating circular permutation using Restriction Free (RF) cloning. **Protein Engineering, Design and Selection**, 31(3), 65–68

Boudhayan Bandyopadhyay, Adi Goldenzweig, Tamar Unger, Orit Adato, Sarel J Fleishman, Ron Unger, and Amnon Horovitz. 2017. Local energetic frustration affects the dependence of green fluorescent protein folding on the chaperonin GroEL. **Journal of Biological Chemistry,** 292(50), 20583–20591

Boudhayan Bandyopadhyay, Twishasri Das Gupta, Debjani Roy and Sujoy K. Das Gupta. 2012. DnaK Dependence Of The Mycobacterial Stress Responsive Regulator HspR Is Mediated Through Its Hydrophobic C-Terminal Tail. **Journal of Bacteriology**, 194, 4688–4697

Twishasri Das Gupta, **Boudhayan Bandyopadhyay** and Sujoy K. Das Gupta. 2008. Modulation of DNA-binding activity of *Mycobacterium tuberculosis* HspR by chaperones. **Microbiology**, 154, 484–490

BOOK CHAPTER

Shriram Raghunathan, Manas Kumar Mishra, Boudhayan Bandyopadhyay. (2024). Factors Affecting Placement Preparation in the COVID-19 Era: A Case Study. Global Digital Transformation and the Covid-19 Pandemic. 237. CRC Press

Boudhayan Bandyopadhyay, Yoav Peleg. (2022). Application of Restriction Free (RF) Cloning in Circular Permutation. In: Currin, A., Swainston, N. (eds) *Directed Evolution. Methods in Molecular Biology*, vol 2461. Humana, New York, NY.

PATENT FILED

Sarel J Fleishman, Adi Goldenzweig, Amnon Horovitz and Boudhayan Bandyopadhyay. MODIFIED ENHANCED GREEN FLUORESCENT PROTEINS, Weizmann Institute of Science, Israel, P-572131-US (US Serial No.:15/830,368), 4-December-2017, Yeda Research And Development Co. Ltd. (Assignee (s))

TEACHING EXPERIENCE

December 2020 – till date: Associate Professor (Full time). Adamas University, Kolkata, India

June 2018-December 2020: Assistant Professor (Full time). VIT Bhopal University, Madhya Pradesh, India

August 2012-February 2014. Assistant Professor (Full time). Batanagar Institute of Engineering Management and Science, Kolkata, India

ADMINISTRATIVE RESPONSIBILITIES

- Departmental in-charge of B. Tech – **Biomedical Engineering** at Adamas University, May 2021 – till date
- **Program Chair** for B. Tech – **Bioengineering** at VIT Bhopal University, July 2018 – September 2020
  - Prepared complete **Curriculum and syllabus** of B. Tech – Bioengineering program
  - **Laboratory Planning and Setup:** Biochemistry, Cell & Tissue Culture and Molecular Biology laboratory
- Signed **MoU** at departmental level between the Institute of Bio-photonics at National Yang - Ming University, Taiwan and the School of Bioengineering of the VIT Bhopal University, India
- Member of **B**oard **o**f **S**tudies for B. Tech – **Bioengineering** program at VIT Bhopal University
- **Conducted Faculty Development Program**: September 2019, January and June 2020 for new faculties joined in VIT Bhopal University as **faculty coordinator of Academic Staff College**

SCHOLARSHIPS/AWARDS

- External Advisory Member of Students Personality Development Committee of Dum Dum Motijheel College
- Life Member. The Society of Biological Chemists (INDIA)
- *JBC Best Poster Award*. Protein Folding, Evolution and Interactions Symposium, University of Cambridge, UK. 2017
- *Post-doctoral fellowship*. Weizmann Institute of Science, Israel. 2014
- *Junior Research Fellowship*. (NET-JRF). CSIR India. 2006
- *National Scholarship*. MHRD, Govt. of India. 2001, 1999

OTHER ACHIEVEMENTS

- Designed Scientific Logo for Scientific meeting on "*Allostery and molecular machine*", The Royal Society, London, UK
- Organized National workshop on "Insights into Molecular Modeling and Simulation (IMMS-2018) at VIT Bhopal
- Organized Symposium on Recent Advancement on Bioengineering, RAVBIT'19 at VIT Bhopal
- Organized three-day international e-conference "BIONEXT 2021: Frontiers in Modern Biology" at Adamas University