



भारतीय रासायनिक जीवविज्ञान संस्थान INDIAN INSTITUTE OF CHEMICAL BIOLOGY



A Unit of Council of Scientific & Industrial Research
An Autonomous Body, under Ministry of Science & Technology
Government of India

4, राजा एस. सी. मल्लिक रोड, यादवपुर, कोलकाता - 700 032
4, Raja S. C. Mullick Road, Jadavpur, Kolkata-700 032

Arindam Talukdar MPharm PhD
Senior Principal Scientist
Organic & Medicinal Chemistry

Dr. Arindam Talukdar (Nomination No: 2023/RA-95)

I certify that the research work under reference has not been given any award.

I'm the Principal Investigator/project leader for the research component mentioned in the documents. In all the publications mentioned in the research document, I'm the senior corresponding author. I have an interdisciplinary background with M.Pharmacy in 'Pharmaceutical Chemistry' and PhD in 'Chemistry' from the National Chemical Laboratory, Pune. My postdoctoral research was mainly in Medicinal Chemistry. I have also worked in an industry in Singapore as a Team leader in the 'Drug Discovery' program. My laboratory at CSIR-IICB consists of PhD students, Masters Students, Project Assistants and postdoctoral students from varied backgrounds.

In my lab along with my students we perform

- Conceptual/hypothesis-based design- based on the specific target
- Computational support and analysis
- Design of synthetic schemes and synthesis of small molecules
- In-vitro pharmacokinetics assays
- In-vivo pharmacokinetics study in mouse followed by analysis in ORBITRAP
- Target engagement study in ITC/SPR; preliminary assay.
- Preliminary screening assay platform
- In-vivo Xenograft assay for Topoisomerase I inhibitor.

My personal research laboratory at CSIR-Indian Institute of Chemical Biology (IICB) is divided in three components. I have two chemistry labs (Lab-131 and Lab-143) containing all the advanced facilities for target-based synthesis and ligand optimization. My lab has two flash chromatography, personal HPLC-Mass spectra for analysis and monitoring reactions, low temp bath, a microwave reactor etc apart from the central instrument facility at IICB. I also have a biology lab (Lab-133) with a facility for medium-throughput screening, cell culture facility, where I also perform in-vivo and in-vitro pharmacokinetic experimentations along with preliminary biological assays. During COVID-19 my lab has screened more than 1500 FDA-approved drugs against various targets for the CSIR project on Antiviral Mission. Lab-134 is a computational lab with three high-computing workstations for assisting the computational design and data analysis.

Further biological validations of the hit compounds obtained from preliminary assay followed by disease model validation are done by my collaborator Dr. Dipyaman Ganguly, Principal Scientist IICB for the endosomal toll-like receptor (TLR) project.

Regards

A handwritten signature in blue ink, appearing to read 'A. Talukdar' with a stylized flourish at the end.

Dr. Arindam Talukdar
Senior Principal Scientist
Organic and Medicinal Chemistry Division
CSIR- Indian Institute of Chemical Biology, Kolkata
Email: atalukdar@iicb.res.in
<https://iicb.res.in/faculty/arindam-talukdar>
Phone: 9051646141