

UNIVERSITY OF CALCUTTA

ACADEMIC DEPARTMENT

FACULTY ACADEMIC PROFILE

1. **Full name of the faculty member:** MEGHA JETHWA
2. **Designation:** Assistant Professor (Contractual)
3. **Specialization:** Pharmaceuticals & Fine Chemical Technology
4. **Contact information:**

Department of Chemical Technology,
University of Calcutta,
92 A P C Road, Kolkata – 700009
E-mail: meg.exams2@gmail.com

5. **Academic qualifications:**



College/ university from which the degree was obtained	Abbreviation of the degree
Pt. Ravi Shankar Shukla University, Raipur	B. Pharm.
University of Calcutta, West Bengal	M. Tech (Pharmaceutical Technology)
University of Calcutta, West Bengal	Ph. D.

6. **Research interests:**

- Metabolomics
- Nanotechnology
- Pharmacophore modelling, Molecular docking and dynamics
- Toxicity

7. **Awards:**

- Received CSIR-SRF Direct Research Fellowship in March 2024 for 3 years
- Received University Research Fellowship from March 2021 to February 2024
- University Potential Excellence (UPE) Fellow from 2018-2019
- First Rank holder in M. Tech. degree in 2018
- Qualified Graduate Pharmacy Aptitude Test (GPAT) in the year 2017 with an All India Rank of 2116 with a score of 116

8. **Projects:**

- Understanding the Mechanistic Pathway of Tyrosine Kinase Inhibitors and Search for Novel Kinase Inhibitors through Chemometric Studies
- Chemometric Modeling on Drug Design and Development of Selective LRRK2 Inhibitors for Therapeutic Application of Parkinson's Disease
- Baicalein Nanoparticles on Drug Induced Liver
- Development and Validation of High-Performance Thin Layer Chromatography (HPTLC) Method for Injectable Formulation of Edavarone
- Anti-inflammatory Herbal Drugs: An Overview

9. **Project mentor/ Co-guide:**

Number of M. Tech. Students: 03

Number of B. Tech. Students: 08

10. **List of publications:**

a) **Journals:**

1. Anindita Hazra, Muddasarul Hoda, **Megha Jethwa**, Achintya Saha, Susmita Das. Metabolomic Based Insight Reveals a few Metabolites at Various Germination Stages of Black Rice, Demonstrating Potential Efficacy Against Dementia and Other Neurodegenerative Conditions. *Appl Biochem Biotechnol.* **2025** Nov. doi: 10.1007/s12010-025-05471-2. PMID: 41201687. (Impact factor: 3.3, 2024)
2. **Megha Jethwa**, Aditi Gangopadhyay, Achintya Saha. Identification of potential therapeutic dual inhibitors of EGFR/HER2 in breast cancer. *Eur J Med Chem Rep.* **2024** Aug, 100143. doi: 10.1016/j.ejmcr.2024.100143 (Impact factor: 4.0)
3. **Megha Jethwa**, Aditi Gangopadhyay, Achintya Saha. Search for potentially biased epidermal growth factor receptor (EGFR) inhibitors through pharmacophore modelling, molecular docking, and molecular dynamics (MD) simulation approaches. *J Biomol Struct Dyn.* **2023** Mar; 41(5):1681-1689. doi: 10.1080/07391102.2021.2023644. PMID: 35014597. (Impact factor: 5.235, 2021)
4. Suvadra Das, Tanay Pramanik, **Megha Jethwa**, Partha Roy. Flavonoid-Decorated Nano-gold for Antimicrobial Therapy Against Gram-negative Bacteria Escherichia coli. *Appl Biochem Biotechnol.* **2021** Jun; 193(6):1727-1743. doi: 10.1007/s12010-021-03543-7. PMID: 33713270. (Impact factor: 3.094, 2021)
5. Asim Halder, **Megha Jethwa**, Pritha Mukherjee, Subarna Ghosh, Suvadra Das, A B M Helal Uddin, Arup Mukherjee, Urmi Chatterji, Partha Roy. Lactoferrin-tethered betulinic acid nanoparticles promote rapid delivery and cell death in triple negative breast and laryngeal cancer cells. *Artif Cells Nanomed Biotechnol.* **2020** Nov; 48(1):1362-1371. doi: 10.1080/21691401.2020.1850465. PMID: 33284038. (Impact factor: 6.355, 2021)

b) **Book chapters:**

- Achintya Saha, **Megha Jethwa**, Aditi Gangopadhyay, Chapter 10 - Application of computation in the study of biosynthesis of phytochemicals, Editor: Satyajit D. Sarker, Lutfun Nahar, Computational Phytochemistry (Second Edition), Elsevier, 2024, Pages 321-355, ISBN 9780443161025, <https://doi.org/10.1016/B978-0-443-16102-5.00003-1>. (<https://www.sciencedirect.com/science/article/pii/B9780443161025000031>)

c) **Conference/ Seminar/ Workshop**

- Acceptance of Abstract for oral presentation in the 12th Annual International Conference on Pharmacy and Pharmaceutical Sciences organized by Athens University, Greece from 5th May to 8th May 2025
- 5-day workshop on Interpretation of Instrumental Methods, organized by Department of Chemistry & International Research Centre, Sathyabama Institute of Science and Technology and CSIR-National Metallurgical Laboratory from 02nd to 7th January, 2025
- 5-day workshop on Hands-on Training in Computational Mathematics using MATLAB organized by Department of Applied Mathematics, University of Calcutta from 5th to 10th January, 2023
- Oral presentation in Importance of Energy and Environment in Everyday Life held at Department of Chemical Technology, University of Calcutta, on 10th January 2020
- One week workshop on Metabolomics, organized by Saha Institute of Nuclear Physics, in the month of December 2019

- Poster presentation on *Drug discovery using chemometric modeling* at India International Science Festival (IISF), organized by Ministry of Science and technology and West Bengal Government, on 8th and 9th December 2019
- LCMS and HPLC training program organized by Water India Limited in Kolkata on 8th April 2019
- Poster presentation on *Nanosponges* at the National Seminar on Pharmacy and Healthcare, organized by Jadavpur University, West Bengal, on 14th September 2018
- Workshop on Flow Cytometry Organised by University of Calcutta, West Bengal, on 28-30 August 2018