

Department of Biochemistry University of Delhi South Campus

Quarterly Report (1st May 2025 to 31st July 2025)

Major Achievements (For Academic Departments): 1. Honors and distinctions, 2. Books/ Patents/ Technology Transfer/ Industrial Collaboration, 3. Seminars/ Conferences/ Workshops Organized

Prof. Amita Gupta - Delivered a lecture on “Entrepreneurship: curriculum and teaching pedagogy” at One-Day Capacity Building Workshop on Entrepreneurship, Kamala Nehru College, University of Delhi on 2 May 2025.

Dr. Vijay K. Prajapati - Participated as a Resource person and delivered a lecture on “Innovations in Drug Delivery Technologies” at the Faculty Development Program (FDP) on Emerging Trends and Innovations in Biotechnology for Sustainable Future, organized by Nims Institute of Allied Medical Science & Technology, NIMS University, Rajasthan, 16th June 2025.

Dr. Vijay K. Prajapati - Served as an external examiner to conduct a viva voce for practical examination of MSc Biochemistry and MSc Medical Laboratory Technology, Semester-II at SGT University, Haryana, 3rd July 2025.

Dr. Vijay K. Prajapati - Served as an external examiner to conduct the end-term practical and viva-voce examination of MSc Medical Laboratory Technology (MMLT) IVth semester at SGT University, Haryana, 28th July 2025.

Dr. Garima Khare - Attended 7th BioGroup-India Meeting held at CDRI, Lucknow, 12th – 13th July 2025

Dr. Dau Dayal - Delivered an invited talk at Amity International School, Mayur Vihar on “State of the Art Genetic Tools for Genome Editing” dated 22 May 2025.

Research Publications-

Sarah, S.R., Garg, A., Afroz, S., Korch, S., Ray, A., **Gupta, A.**, Malhotra, V. (2025). Ser/Thr phosphorylation of Mycobacterium tuberculosis type II RelK toxin by PknK destabilizes TA interaction and interferes with toxin neutralization. mBio 2025: e01068-25. <https://doi.org/10.1128/mbio.01068-25>

Kumar, P., Choudhary, A., King, S., Jagtap, Y.A., **Prajapati, V.K.**, Chitkara, D., Chinnathambi, S., Verma, R.K., Mishra, A. (2025). Autophagy as a potential therapeutic target in regulating improper cellular proliferation. Front Pharmacol. 2025 May 15;16:1579183. doi: 10.3389/fphar.2025.1579183.

Choudhary, A., Kumar, P., Jagtap, Y.A., Kinger, S., Jha, H.C., Gutti, R.K., Sharma, V., **Prajapati, V.K.**, Mishra, A. (2025). Mechanistic insights of molecular chaperone Hsp70: Pathogenesis of neurodegenerative diseases. Brain Network Disorders. 12 June 2025, <https://doi.org/10.1016/j.bnd.2025.05.001>.

Nangpal, P., Nagpal, N.L., Nagrish, N. and **Khare, G.** (2025) Model systems to study *Mycobacterium tuberculosis* infections: an overview of scientific potential and impediments. Front. Cell. Infect. Microbiol. 15:1572547.

Book Chapters-

Duggal, A., Mahindru, D., Baghel, K., Mehrotra, S., **Prajapati, V.K.***, Tau protein aggregation: A therapeutic target for neurodegenerative diseases. Adv Protein Chem Struct Biol. 2025; 146:77-136. doi: 10.1016/bs.apcsb.2024.11.012.

Dayal, D. Cell death mechanisms in *Drosophila*: Responses to infectious challenges (2025) Progress in Molecular Biology and Translational Science. Page no. 1-24. Elsevier

Targets (For Academic Departments: Academic activities and Research)

Formulation and finalization of syllabus for M.Sc. Biochemistry 2nd year under NEP-2020 Framework.

Court/Executive Council meetings

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Planning of Convocation/ Honoris Causa Degrees etc.

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Any Pending Issues

Recruitment of teaching posts is pending and recruitment of non-teaching posts is also pending.

Any other important activity (For Academic Departments): 1. International collaborations including students exchange, 2. Extension and outreach activities and any other significant achievements/activity