

Department of Biochemistry University of Delhi South Campus

Quarterly Report
(1st May 2024 – 31st July, 2024)

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

- **Prof. Amita Gupta** - Invited as Chief Guest for the inaugural session of the CSIR-sponsored National Conference on RNA-Based Therapeutics: Discovery to Clinic, on April 25, 2024 at Shivaji College, University of Delhi. Delivered talk on "Innovation driven research in a University Ecosystem".
- **Prof. Amita Gupta** - Appointed Director, Delhi School for Skill Enhancement & Entrepreneurship Development (DSSEED), Institution of Eminence (IoE), University of Delhi.
- **Dr. Garima Khare** - Delivered invited lectures at the workshop on 'Biosecurity for laboratories working with toxins: A train the trainer program' organized by Health Security Partners and Federation of Asian Biotech associations, held from 29-31st July, 2024 in Hyderabad, India
- **Dr. Garima Khare** - Served as a member in the panel of the judges for poster competition held at THSTI, Faridabad (15th July, 2024)
- **Dr. Garima Khare** - Served as a member in the panel of the judges for colloquium competition held at THSTI, Faridabad (11th-12th July, 2024).
- **Dr. Garima Khare** - Delivered an invited lecture at the 6th BioGroup-India Meeting held at IIT Gandhinagar, 4th – 5th July 2024.
- **Dr. Dau Dayal** - Delivered an invited lecture – "***Drosophila* as a model system: Exploring obesity research**" at the School of Biotechnology, Jawaharlal Nehru University (JNU), New Delhi.

Publications:

1. Bhatt, S., Mohapatra, A.K., Rajesh, A.S., Meher, S., **Nag, A.**, Panda, P.K., Nanda, R.K., Kundu, S. (2024). Does Deteriorating Antioxidant Defense and Impaired γ -Glutamyl Cycle Induce Oxidative Stress and Hemolysis in Individuals with Sickle Cell Disease? Antioxid Redox Signal. 2024 Jul 29. doi: 10.1089/ars.2024.0594.
2. Bhalerao, P., Singh, S., **Prajapati, V.K.**, Bhatt, T.K. (2024). Exploring malaria parasite surface proteins to devise highly immunogenic multi-epitope subunit vaccine for *Plasmodium falciparum*. Journal of Genetic Engineering and Biotechnology. Jun;22(2):100377.doi: 10.1016/j.jgeb.2024.100377.

3. Kinger, S., Jagtap, Y.A., Kumar, P., Choudhary, A., Prasad, A., **Prajapati, V.K.**, Kumar, A., Mehta, G., Mishra, A. (2024). Proteostasis in neurodegenerative diseases. *Advances in Clinical Chemistry*. 121:270-333. doi: 10.1016/bs.acc.2024.04.002.
4. **Dayal, D.** (2024). Decoding the connection between lncRNA and obesity: Perspective from humans and *Drosophila*. *Heliyon* 10 (2024) e35327.

Books-

1. *Advances in Protein Chemistry and Structural Biology*, Volume 140, Editor- **Vijay Kumar Prajapati** and Rossen Donev. Publisher: Elsevier Academic Press; ISBN: 978-0443193507. May 2024.

Book chapters-

1. Sagar, Takhellambam M., Rattan, A., **Prajapati, V.K.** Unleashing the power of antibodies: Engineering for tomorrow's therapy. *Adv Protein Chem Struct Biol*. 2024;140:1-36. doi: 10.1016/bs.apcsb.2023.12.009.
2. Malemnganba, T., Rattan, A., **Prajapati, V.K.** Decoding macrophage immunometabolism in human viral infection. *Adv Protein Chem Struct Biol*. 2024;140:493-523. doi: 10.1016/bs.apcsb.2023.12.003.
3. Rattan, A., Malemnganba, T., Sagar, **Prajapati, V.K.** Exploring structural engineering approach to formulate and characterize next-generation adjuvants. *Adv Protein Chem Struct Biol*. 2024;140:59-90. doi: 10.1016/bs.apcsb.2023.12.020.
4. Kalita, E., Panda, M., Rao, A., Pandey, R.K., **Prajapati, V.K.** Viral mimicry and endocrine system: Divulging the importance in host-microbial crosstalk. *Adv Protein Chem Struct Biol*. 2024;142:421-436. doi: 10.1016/bs.apcsb.2024.03.005.
5. Rao, A., Kumari, D., Singh, S., Kumar, K., **Prajapati, V.K.** Quantum-Enabled Drug Discovery Process. *Drug. Delivery Systems Using Quantum Computing*. Publisher-John Wiley & Sons, Inc. doi- 10.1002/9781394159338.ch2.

Fellowship-

1. **Dr. Vijay K. Prajapati** - Received LabEx CEMEB fellowship as Visiting Scientist and visited Prof. Yvon Sterkers Lab, Parasitology Unit, University of Montpellier, Montpellier, France. Visit date- 9th June-6th July 2024. Funding agency- LabEx CEMEB.

Student Award:

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Targets (For Academic Departments: Academic activities and Research)

Court/Executive Council meetings

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Planning of Convocation/ Honoris Causa Degrees etc.

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Any Pending Issues

Recruitment against three teaching posts is pending and recruitment against 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

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