

Department of Biochemistry University of Delhi South Campus

Quarterly Report (August to October 2023)

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

Seminar Organized:

Seminar by Prof. Deepak Kaushal, Professor and Head at the Southwest National Primate Research Centre, Texas Biomed, USA on 31st October, 2023 on "The Nonhuman Primate Preclinical Model of TB and TB/AIDS: Immune Responses in and Prior to Formation of Granulomas"

Seminar on "Translating the Perturbed Pathophysiology in Tuberculosis" by Dr. Ranjan Nanda, Group Leader, Translational Health, ICGEB, 10th October 2023.

Seminar on "Leptin dysregulation linked to the severity of infectious disease" by Dr. Radheshyam Maurya, Department of Animal Biology, School of Life Sciences, University of Hyderabad, 6th October 2023.

Publications:

1. Pradhan, S.K., Sahani, N., Preeti and **Nag, A.** (2023). Mechanistic insights into the oncogenic partnership of hADA3 and HPVE6-paving ways for improved for improved cervical cancer therapy. *Indian Journal of Biochemistry and Biophysics (IJBB)*, 60 (9), 651-658.
2. Naik, B., Gupta, N., Godara, P., Srivastava, V., Kumar, P., Giri, R., **Prajapati, V.K.**, Pandey, K.C., Prusty, D. (2023). Structure-based virtual screening approach reveals natural multi-target compounds for the development of antimalarial drugs to combat drug resistance. *J Biomol Struct Dyn.* 2023 Aug 1:1-25. doi: 10.1080/07391102.2023.2240415.
3. Vellingiri, B., Balasubramani, K., Iyer, M., Raj, N., Elangovan, A., Song, K., Yeo, H.C., Jayakumar, N., Kinoshita, M., Thangarasu, R., Narayanasamy, A., Dayem, A.A., **Prajapati, V.K.**, Gopalakrishnan, A.V., Cho, S.G. (2023). Role of Telomeres and Telomerase in Parkinson's Disease-A New Theranostics? *Adv Biol (Weinh)*. 2023 Aug 17:e2300097. doi: 10.1002/adbi.202300097.
4. Nupur Angrish, Neha Lalwani and **Garima Khare.** In silico virtual screening for the identification of novel inhibitors against dihydrodipicolinate reductase (DapB) of *Mycobacterium tuberculosis*, a key enzyme of diaminopimelate pathway. (2023) *Microbiology Spectrum*, <https://doi.org/10.1128/spectrum.01359-23>.
5. Chetkar Chandra Keshavam, Saba Naz, Aanchal Gupta, Priyadarshini Sanyal, Manisha Kochar, Aakriti Gangwal, Nitika Sangwan, Nishant Kumar, Ekta Tyagi, Simran Goel,

Nitesh Kumar Singh, Divya Tej Sowpati, **Garima Khare**, Munia Ganguli, Dominique Raze, Camille Loch, Sharmila Basu-Modak, Meetu Gupta, Vinay Kumar Nandicoori, Yogendra Singh. The heparin-binding haemagglutinin protein of Mycobacterium tuberculosis is a nucleoid-associated protein. (2023) Journal of Biological Chemistry, <https://doi.org/10.1016/j.jbc.2023.105364>.

Targets (For Academic Departments: Academic activities and Research)

Extramural Grant

Prof. Alo Nag

Extramural Grant sanctioned by CSIR (sanction letter no. 27/0388/23/EMR-II dated 14.7.2023) for a period of three years.

The title of the project "Understanding the Tumor Suppressive Properties of Artemisinin in Blocking the Oncogenic Activities of FOXM1 and HBX in Hepatocellular Carcinoma".

Amount sanctioned : Rs.25 Lakhs

Dr. Dau Dayal

Extramural Grant sanctioned by DBT (Sanction letter No. BT/PR44574/MED/30/2401/2022) dated 26th September 2023 for a period of three years.

The title of the project "Genome-wide analysis to trace signatures of induced obesity in Drosophila melanogaster (Project's acronym – GenSig)"

Amount sanctioned: Rs.78,27,818/-

Court/Executive Council meetings

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Planning of Convocation/ Honoris Causa Degrees etc.

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Any Pending Issues

Teaching and Non-Teaching recruitment

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

Extension and outreach activities and any other significant achievements/activity

1. Prof. Amita Gupta delivered a lecture on "Phage Display: A powerful Technique and its Applications" at the 4th International Conference on Bacteriophage Research and Antimicrobial Resistance at University of Madras, Chennai on 29 September 2023.
2. Prof. Amita Gupta participated as a Resource person and delivered oral talk in the scientific workshop on bacteriophage therapy entitled "Basics of Bacteriophage Biology & Clinical Applications to Combat the Emerging Antimicrobial Resistance: A Hands-On Training," held at Banaras Hindu University, Varanasi from October 3--7, 2023.