



Three Days Hands-on Workshop
On

Exploring Multi-Omics: Metagenomics, Metabolomics and Their Data Analysis

Organized By

Department of Zoology, University of Allahabad,
Prayagraj (U.P.) 211002
Under the Aegis of IQAC, UoA
(October 8th -10th, 2026)



Chief Patron

Prof. Sangita Srivastava
Hon'ble Vice-Chancellor, University of
Allahabad, Prayagraj (U.P.)

ORGANIZING COMMITTEE

Chairperson

Prof. Kapinder, Head, Department of Zoology, UoA

Convenor

Dr. Prateek Kumar, Department of Zoology, UoA

Co-Convenor

Dr. Manish Sharma, Department of Zoology, UoA
Dr. Anusha Singh, Department of Zoology, UoA

Invited Dignitaries



Prof. S.I. Rizvi

Dean, Faculty of Science,
University of Allahabad



Prof. Manish
Srivastava

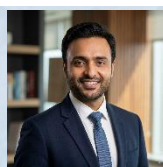
Dean, Research and
Development,
University of Allahabad



Prof. Abhay
Kumar Pandey

Head, Department of
Biochemistry,
University of Allahabad

Resource Persons



Piyush Tiwari

Head R&D, Centyle
Biotech Pvt Ltd



Rishabh Singh

Metabolomics Expert,
Centyle Biotech Pvt Ltd



Aryan Gupta

Metagenomics Expert,
Centyle Biotech Pvt Ltd



ABOUT UNIVERSITY

The University of Allahabad is a Central University established in 1887, located in Prayagraj, Uttar Pradesh. It is the fourth-oldest modern University in India and is recognized as an 'Institute of National Importance'. The University's origins lie in Muir Central College, named after Sir William Muir, who suggested the idea of a Central University at Allahabad. Also, It was known as the 'Oxford of the East'. As a Central University its status was re-established through the University of Allahabad Act 2005 by the Parliament of India.



ABOUT DEPARTMENT

A Department as old as Zoology, which has seen the rising sun for a hundred years, has a long history. It has nurtured the glories of its legendary past and at the same time inducted fresh life into itself. Established in 1906, the Department of Zoology is one of the oldest Department of the country. It was Prof. Homersham Cox and Prof. F.M. Howlett, the two personalities with great vision, that Biology was introduced as a subject of study for the Bachelor of Science Degree of the University.

Registration Details

P.G. Students	INR 750/-	Bank Details: Punjab National Bank Account holder's name: Head, Department of Zoology, University of Allahabad Account no: 1001000100520109 IFSC-Code: PUNB0100100 Branch: Colonelganj, Allahabad
Research Scholars	INR 1200/-	
Academicians/ Delegates/ PDF/RA	INR 1500/-	

IMPORTANT DATES

Workshop Date: October 8th -10th, 2026

Start of Registration: September 24th, 2026

Last Date of Registration: October 5th, 2026

REGISTRATION DETAILS

Registration Link:

<https://forms.gle/go5hDtK4pDhvi9Yi7>

*On spot registration is also available.

Maximum 50 Participants

SESSIONS

DAY 1

❑ 16S metagenomics foundation and data processes

- Raw data and quality control FastQC and MultiQC
- Trimming and denoising cutadapt/Fastp, DADA2/Deblur
- Taxonomic classification SILVA/Greengenes2

DAY 2

❑ 16S metagenomic diversity and metabolomics Platforms

➤ Microbial community analysis

- Phylogenetic tree (MAFFT, FastTree)
- Alfa diversity and beta diversity (PCoA, Emperor)
- Differential abundance and biomarker discovery (ANCOM, DESeq2, LEfSe)

➤ Introduction to metabolomics

SESSIONS

DAY 3

❑ Metabolomics data processing and Multi-Omics R visualization

- Metabolite annotation and identification
- Statistical and multivariate analysis (Peak alignment, normalization, fold change testing)
- Multivariate methods (PCA, HCA, PLS-DA/OPLS-DA)
- Data visualization using R (Heatmap, volcano plots, pathway enrichment chart and diversity plots)

CONTACT DETAILS

Dr. Prateek Kumar

+91 8447539087

Dr. Manish Sharma

+91 9999319075

Dr. Anusha Singh

+91 8960766687

Workshop Venue:

Auditorium, Centre of Food Technology, Faculty of Science, University of Allahabad, Prayagraj (U.P.)