

REPORT ON THE VISIT OF GUEST FACULTY

A talk on "The Basics of Molecular Biology" was organized by the Department of Botany on 29th April, 2024. The talk was an activity undertaken as a part of MoU signed between the Department of Botany, DHSK College and the Department of Zoology, Tinsukia College.

Dr. Kaushal Sood, Assistant Professor of the Department of Zoology, Tinsukia College and a distinguished molecular biologist, was invited as a guest professor to impart his expertise to the 4th Semester students of the Department of Botany. The focus of his sessions was on elucidating the intricate processes of DNA replication, transcription, and translation, fundamental to understanding the mechanisms of molecular biology.

Dr. Sood commenced the session by delving into the process of DNA replication, elucidating its significance in the perpetuation of genetic information. He meticulously explained the steps involved, from the initiation of replication forks to the synthesis of complementary DNA strands. The students were engaged in interactive discussions, wherein Dr. Sood elucidated key concepts such as the role of DNA polymerases, Okazaki fragments, and the proofreading mechanisms ensuring fidelity in replication.

Dr. Sood seamlessly transitioned into explaining transcription, the process of transcribing genetic information from DNA into messenger RNA (mRNA). He provided clear explanations and examples covering initiation, elongation, and termination phases, highlighting the role of RNA polymerase and the importance of promoters and terminators in transcriptional regulation. In the final segment, he focused on translation, where mRNA is decoded to synthesize proteins. Using visual aids and real-world analogies, he clarified the roles of ribosomes, transfer RNA (tRNA), and the genetic code in protein synthesis. Students gained insights into codon recognition, peptide bond formation, and the significance of start and stop codons in determining the protein sequence.

Throughout the sessions, Dr. Sood fostered an interactive learning environment, encouraging active participation and addressing queries from the students. His adeptness in simplifying complex concepts facilitated comprehensive understanding among the learners, fostering a conducive atmosphere for intellectual exchange and scholarly discourse.

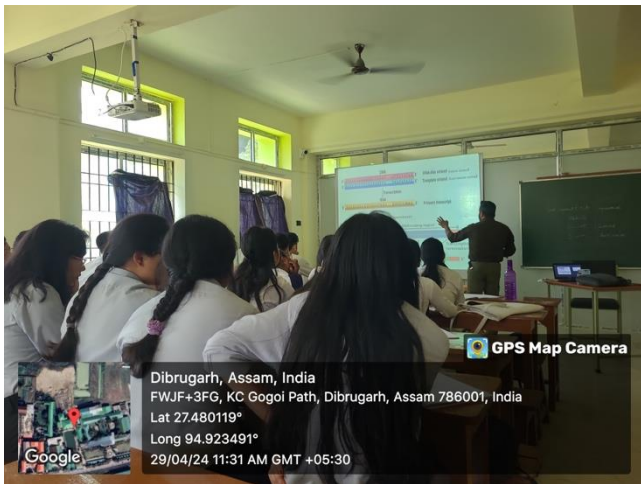
Dr. Kaushal Sood's visit as a guest professor proved to be immensely enriching for the 4th Semester students of the Department of Botany. His adept elucidation of DNA replication, transcription, and translation mechanisms enhanced their understanding of molecular biology fundamentals. The sessions not only broadened their theoretical knowledge but also instilled a deeper appreciation for the intricacies underlying cellular processes. The Department extends its heartfelt gratitude to Dr. Sood for his invaluable contributions and looks forward to potential collaborations in the future.



(Dr. Alakananda Baruah)

HOD

Department of Botany
DHSK College



Banuah