

Mohamed Sathak College of Arts and Science

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Sholinganallur, Chennai – 600 119.



REPORT ON DISTINGUISHED LECTURE IN BIOLOGICAL SCIENCE

Title: *From DNA to Discovery – A Scientist's Journey*

Date: 14 August 2026

Time: 11.00 AM

Venue: Mini Conference Hall

SDGs Addressed

- ❖ SDG 4 – Quality Education
- ❖ SDG 3 – Good Health and Well-being
- ❖ SDG 9 – Industry, Innovation and Infrastructure

Greetings to All,

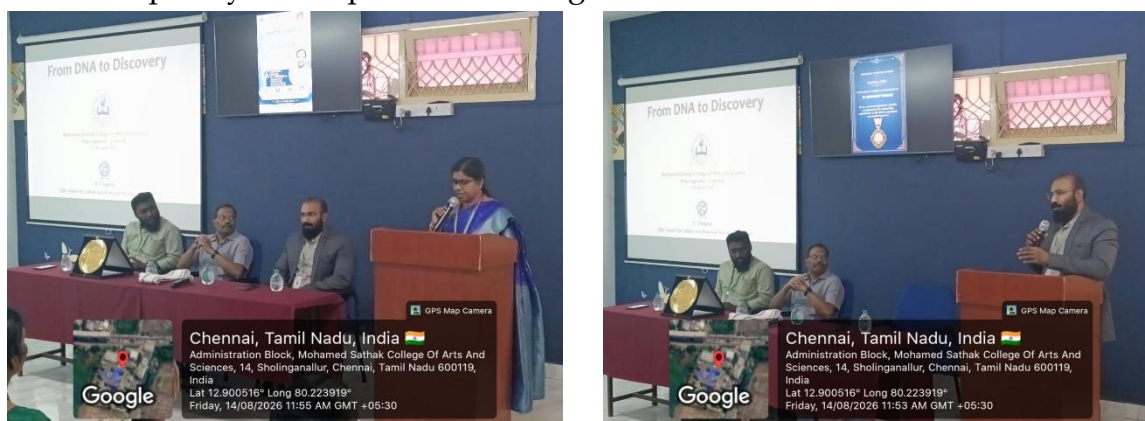
The **PG and Research Department of Biotechnology**, in association with the **Internal Quality Assurance Cell (IQAC)**, Mohamed Sathak College of Arts and Science, organized a **Distinguished Lecture in Biological Science** titled “**From DNA to Discovery – A Scientist's Journey**” on **14 August 2026** at the Mini Conference Hall. The programme featured **Padma Shri Dr. K. Thangaraj, Ph.D., Distinguished Geneticist and CSIR Bhatnagar Fellow, CSIR-Centre for Cellular and Molecular Biology (CCMB), Hyderabad**, as the resource person. The session provided students and faculty members with an opportunity to gain insights into contemporary human genetics, genomics, evolutionary biology, and the translation of genomic research into medical applications.

Learning Objectives

The session aimed to:

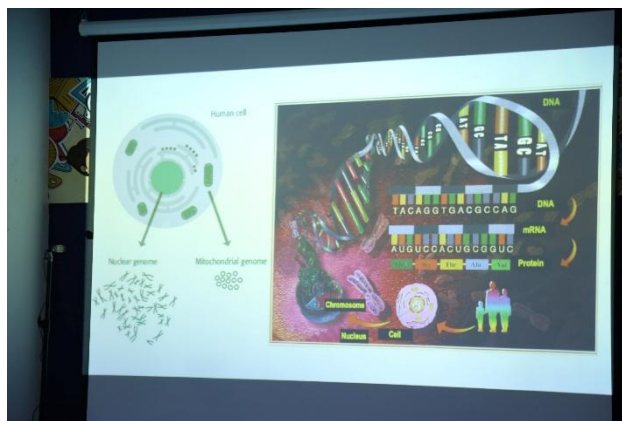
- Introduce participants to the fundamentals and significance of genomics and human genetic variation.
- Explain the role of mutations as a source of genetic variation and their contribution to evolution.
- Familiarize students with the application of genomic studies in understanding human population history and migration.
- Highlight the importance of genome-based research in investigating human health and disease.
- Create awareness about emerging applications of genomics in personalized and precision medicine.

The programme commenced with a **Welcome Address** delivered by **Dr. J. Joy Sebastian Prakash**, who warmly welcomed the resource person, dignitaries, faculty members, and students. This was followed by the ceremonial honouring of the resource person with a memento by **Dr. M. S. Mohamed Jaabir, Principal**, and **Dr. M. Syed Ali, Vice-Principal & Head**, in recognition of his valuable contribution to the field of genetics and genomics. The Felicitation Address was delivered by the Principal, who highlighted the importance of exposing students to eminent scientists and contemporary developments in biological sciences.



The resource person was formally introduced by **Mrs. Nasreen Najeeb**, Assistant Professor, Department of Biotechnology. She presented an overview of Dr. Thangaraj's distinguished academic and research career and his contributions to human genetics and genomics. Following the introduction, Dr. Thangaraj delivered an engaging lecture tracing the journey from fundamental concepts of DNA and the human genome to their applications in understanding human evolution, population history, and disease.

Dr. Thangaraj introduced the **concept of the genome**, referring to the perspectives associated with **Francis Collins**, and explained the importance of genomic information in understanding human biology. He highlighted **mutations as the raw material of evolution**, explaining how genetic variation contributes to evolutionary change and provides valuable information for studying human populations and their history.



The lecture further focused on **ancient human genomics**, particularly the **Denisovan genome** and the **Harappan genome**, demonstrating how genomic

analysis of ancient populations can provide insights into human evolution, migration, and population relationships. He also discussed his research involving the **LAMB3 gene**, highlighting the importance of gene-level studies in understanding human biology and disease.

The session concluded with a discussion on the emerging applications of genomics in **personalized and precision medicine**. During the interactive **Question-and-Answer Session**, students and faculty raised questions regarding genomic applications in healthcare and the future of precision medicine, which the resource person addressed with insights from his research experience. A lighter moment was shared when it was revealed that **Mrs. Nasreen Najeeb had been Dr. Thangaraj's M.Phil classmate**, adding a warm and memorable dimension to the academic interaction.

Outcomes of the Programme

At the end of the session, the participants were able to:

- Develop a better understanding of genomes, genomic variation, and human genetics.
- Appreciate the role of mutations in generating genetic variation and driving evolutionary processes.
- Understand how ancient DNA studies, including Denisovan and Harappan genomes, can reveal aspects of human evolutionary and population history.
- Gain awareness of the application of genomic research to human health and disease.
- Understand the emerging significance of personalized and precision medicine.
- Become motivated to explore research opportunities in genetics, genomics, molecular biology, and biomedical sciences.

The programme concluded with a **Vote of Thanks** delivered by **Dr. A. Vaishnavi**, who expressed sincere gratitude to the distinguished resource person, the Principal, Vice-Principal, Management, faculty members, students, and organizing committee for their valuable contributions to the successful conduct of the programme. The lecture provided an inspiring academic experience and strengthened the participants' appreciation of how fundamental discoveries in DNA and genomics can progress towards meaningful applications in human health and medicine.

Dr. M. Syed Ali

Vice-Principal & Head

PG & Research Department of Biotechnology
Mohamed Sathak College of Arts and Science