



ST. XAVIER'S COLLEGE, MAPUSA GOA

Report of Activity conducted in the Academic Year

2024-25

Name of Activity	Invited talk by Dr. Prabhu D. Head Department of Microbiology University of Madras
Date/ Duration	24 January 2025/1 hour
Venue	Microbiology lab 2
Name of organizing Department/Cell	Microbiology
In collaboration with	
Name/s of Faculty Co ordinator	Dr. Sheryanne Velho- Pereira
Stratum of Event	College
Name & details of Resource Person/s if any	Dr., Prabhu D. Head Department of Microbiology University of Madras
Report	<p>Dr. Prabhu, a distinguished microbiologist from the University of Madras, delivered an insightful lecture on the future prospects of microbiology. The talk explored various domains, showcasing how microbiology is pivotal in addressing global challenges and advancing science.</p> <p>Dr. Prabhu began with environmental microbiology, emphasizing microbial applications in pollution control, bioremediation, and sustainable agriculture. He highlighted their role in combating climate change and managing waste effectively. Moving to vaccine technology, he explained advancements in mRNA vaccines and microbial vectors, stressing their importance in preventing infectious diseases.</p> <p>The scope of medical microbiology was discussed in-depth, with a focus on antimicrobial resistance, rapid diagnostics, and the significance of microbiome research for personalized medicine. He also explored the integration of bioinformatics and data mining, where computational tools analyze microbial genomes, predict disease outbreaks, and enhance drug development through AI-driven techniques.</p> <p>An exciting part of the lecture touched on self-healing technologies, such as bioengineered microbes for self-repairing concrete and medical implants, highlighting interdisciplinary innovation. Dr. Prabhu further delved into industrial and food microbiology, explaining the use of microbes in fermentation, food safety, and quality enhancement.</p> <p>Additionally, he introduced space microbiology, investigating microbial survival in extreme environments and its potential applications in space exploration. The emerging field of forensic microbiology, which employs</p>

	<p>microbial signatures for criminal investigations and outbreak tracking, was also briefly discussed.</p> <p>Dr. Prabhu concluded by sharing his inspiring career journey, detailing challenges, achievements, and the importance of perseverance in research. His story motivated students to pursue microbiology with passion and explore its limitless potential.</p> <p>The session ended with an engaging Q&A, leaving attendees with a broader perspective on microbiology's role in shaping a sustainable and innovative future. The programme had 59 beneficiaries from the F.Y.B.Sc. Microbiology major class.</p>
Brochure/Poster	NA
Photographs	https://xavierscollegegoa.ac.in/wp-content/uploads/2025/02/prabhus-talk-1.pdf
List of participants with signatures	https://xavierscollegegoa.ac.in/wp-content/uploads/2025/02/registration-sheet-1.pdf
Certificate	NA