



**23.08.2025**

**National Conference on “Emerging Trends and Innovations in Biosciences (ETIB-2025)”**

A two-day National Conference on "**Emerging Trends and Innovations in Biosciences (ETIB-2025)**" was successfully organized by the **PG & Research Department of Microbiology**, J.J. College of Arts and Science (Autonomous), on **August 22nd and 23rd, 2025**. The event, held at the college campus in Pudukkottai, brought together scientists, researchers, academicians, and students from across India to discuss cutting-edge advancements in the field of biosciences.

The conference was jointly sponsored by the **Department of Biotechnology (DBT)** and the **Council of Scientific & Industrial Research (CSIR)**, under the Ministry of Science & Technology, Government of India, highlighting its national significance and academic rigor.

The inaugural session commenced at 10:15 a.m. on Friday, August 22, with the traditional Tamizhthai Valthu, followed by the lighting of the ceremonial Kuthuvilaku. **Dr. J. Parasuraman, Principal** of J.J. College of Arts and Science, delivered the welcome address, emphasizing the importance of innovation in biosciences for sustainable development. **Dr. Kavitha Subramanian, Management Trustee** of the college, delivered the presidential address, underscoring the institution's commitment to fostering research and scientific temperament among young minds.

The inaugural address was delivered by **Dr. S. Ezil Vendan, Senior Scientist and AcSIR Faculty at CSIR-CFTRI, Mysuru**, who also released the conference souvenir. The souvenir was received by **Mr. N. Subramanian**, Secretary of the college. The vote of thanks was delivered by **Dr. P. Jeevan**, Head of the Department of Microbiology.

The technical sessions featured a series of insightful plenary lectures by eminent scientists:

**Dr. Ezil Vendan** delivered an insightful and timely presentation on Biorational Approaches for Eco-friendly Management of Stored-Product Insect Pests, emphasizing the urgent need to shift from conventional chemical pesticides to sustainable, environmentally safe alternatives in post-harvest pest management. The session attracted significant attention from researchers, extension officers, and agro-industry stakeholders concerned with food security and ecological sustainability.

**Dr. K. Muralitharan**, Professor, Department of Microbiology, Director - NFMC, Coordinator – RMC F & M, Bharathidasan University, Tiruchirappalli, Tamilnadu delivered a compelling and forward-looking presentation on Developing Novel Assays for Identifying Biomarkers at the International Conference on Advanced Diagnostics and Precision Medicine (ICADPM 2024). His talk highlighted the critical role of innovative assay development in accelerating biomarker discovery for early disease detection, personalized therapy, and monitoring treatment response. The session was well-attended by molecular biologists, clinical researchers, diagnostic developers, and biotech industry representatives.

**Mr. V. Umamageswaran**, Senior Technical Officer, Molecular Microbiology & Immunology, CSIR - Central Drug Research Institute Lucknow, Uttar Pradesh delivered an insightful and technically robust presentation on Developing Novel Assays for Identifying Biomarkers at the National Symposium on Emerging Frontiers in Biomedical Research (NEFBR 2024). His talk underscored the growing importance of innovative, high-sensitivity assays in accelerating biomarker discovery for early disease detection, therapeutic monitoring, and personalized medicine. The session was well-received by researchers, biotechnologists, and diagnostic professionals interested in translational science.

On the second day, **Dr. Veeragurunathan**, Principal Scientist & Scientist-In- Charge, CSIR-CSMCRI-Marine Algal Research Station, Mandapam Camp, Ramnad, Tamilnadu began by introducing marine algae-particularly red (Rhodophyta), brown (Phaeophyta), and green (Chlorophyta) seaweeds-as photosynthetic marine organisms with high biomass productivity and minimal environmental footprint. He emphasized that unlike terrestrial crops, seaweeds require no freshwater, arable land, or fertilizers, making them ideal candidates for sustainable bio-based industries. He noted that over 700 species of marine algae are recorded along the Indian coastline, yet only a fraction is currently cultivated or commercially exploited.

The final plenary session was led by **Dr. Kathiresan Natarajan**, Scientist-E-1, Transdisciplinary Biology, BRIC-Rajiv Gandhi Centre for Biotechnology, Thiruvananthapuram, Kerala who delivered a highly technical and insightful presentation at the International Conference on Cytoskeleton, Cell Division & Disease (ICCCD 2024) on the critical role of TUBB4B, a  $\beta$ -tubulin isotype, in regulating microtubule dynamics and its implications in developmental and neurological disorders. His talk combined cutting-edge molecular biology, live-cell imaging, and structural modeling to elucidate how mutations in TUBB4B disrupt cytoskeletal architecture and cellular function. The session was attended by

cell biologists, geneticists, neuroscientists, and structural biologists interested in tubulinopathies and cytoskeletal diseases. The conference also included paper presentations and a poster presentation session, providing a platform for young researchers and students to showcase their work and engage in scientific dialogue.

A total of 115 external participants from various Colleges in and around Tamil Nadu have actively participated in the Conference. Most of the students presented their research in oral and poster. Best oral and poster presentations were selected and awarded with a Cash Price and Memento.

The conference concluded with a valedictory ceremony on Saturday, August 23, at 3:00 p.m. Dr. Kathiresan Natarajan delivered the valedictory address and presided over the certificate distribution ceremony. In his closing remarks, he encouraged participants to pursue interdisciplinary research and contribute to India's scientific growth.

The vote of thanks was delivered by Dr. M. Poornima, Assistant Professor in the Department of Microbiology, who expressed gratitude to the speakers, sponsors, participants, and organizing team for their invaluable contributions.

The event concluded with the singing of the National Anthem, marking the successful culmination of ETIB-2025.