**Hands on Training in High throughput platforms for Metabolomics: GC-MS/MS at TNAU**

Centre of Excellence in Biotechnology organised “**Hands on Training in High throughput platforms for Metabolomics: GC-MS/MS”** on **December 21st & 22nd, 2023** at CPMB&B, TNAU, Coimbatore. The participants include research scholars and faculties from various colleges and research institutes from all over India attended this training programme.

In the inaugural function, Dr. S. Mohan Kumar, Professor and Project Director (CoEB), CPMB&B, TNAU welcomed the gathering and explained about the importance of advanced tools for plant metabolomics. Also, the main objective is manpower development by conducting series of training to the students and faculties he added.

the facility in CoEB can be availed by the researchers and students from TNAU and other institutes.

Dr. N. Senthil, Director (CPMB&B), TNAU in his inaugural address highlighted the importance of metabolomic and proteomics analysis in determining the novel compounds from plants and microbes. Metabolomics is applied in various fields. After deciphering human genome, 19,000 metabolites linked with genes were identified. Exogenous metabolites from microbes food and environment plays important role in deducting disease progression. Also, metabolome from plants also gaining importance since, various metabolites were responsible for biotic and abiotic stress resistance. Many bioinformatics tools were applied for analysis of data and the trainees were exposed to these tools. CPMB&B has well established bioinformatics platform for data analysis and other genomics work. These facilities can be effectively used by the students/ industries / start-ups he added.

Dr. M. Shanthi, Director, Centre for Plant Protection Studies (CPPS), TNAU in her presidential address explained about the applications of metabolomic analysis in pest management. The metabolomics analysis was used to identify the plants resistant to pests and analysis of pesticide residues. It is also used for development of kits for detecting pesticide residues in fruits and vegetables.

Finally, Dr. M. Sudha, Assistant Professor, Department of Plant Biotechnology, CPMB&B, TNAU proposed the vote of thanks.

In continuation, Dr. S. Vellai Kumar, Associate Professor, CPMB&B,   
Dr. K. Bhuvaneswari, Professor, Dept. of Agrl. Entomology, Research scholars and Mr. D. Venkatesh, Application support, Spinco Biotech were explained about basics of GCMS, application of GCMS, sample preparation for GCMS analysis and the theoretical insights on GCMS instruments. The trainees were exposed to the hardware of GCMS, data analysis of acquired data, docking studies in metabolite analysis and its software used for data analysis.