





## Training on

# "Genetic & Microbial Monitoring of Animals"

# 26<sup>th</sup> - 31<sup>st</sup> August 2024



CSIR-Center for Cellular and Molecular Biology is conducting a hands-on training on 'Genetic & Microbial Monitoring of Animals' targeted to faculty members/researchers from universities/institutes/industries and interested individuals in the field of Life Sciences, Medical Sciences, PharmaceuticalScience & allied areas. It is intended to train people in monitoring and maintaining lab animals used for various experiments. The training would involve hands-on experimentations and lectures on tissue collection, DNA isolation, genotyping, biochemical analyzers, microbial contamination detection and preventions.

No. of seats	:	10-15
Minimum Qualification	:	Masters in any branch of Life Science/Allied areas
Dates	:	26 <sup>th</sup> - 31 <sup>st</sup> August 2024.
Mode of the Course	:	In-house training at CCMB
Mode of selection	:	Application form & Statement of Purpose
Course Fee	:	Rs.18, 000/- (Including accommodation & GST)

Training Curriculum: Curriculum includes lectures and hands-on sessions on:

- > Quality control, both genetic & microbial to maintain genetically homozygous & germ free animals
- > Immuno-genetic, biochemical and PCR based testing methods
- Disease screening of lab animals, sample collection & processing techniques for molecular & microbiological monitoring
- > Things to sort out during standardization

### Hands-on:

- Genomic DNA isolation from tail samples
- > Genotyping of tail samples by Standard and quantitative PCRs
- > Preparation and observation of agar plates for microbial cultures from different platforms
- Microbial assessment by different staining procedure and ABST
- Biochemical testing by hematology and immunological testing by ELISA
- > Fecal examination for endo-parasites and skin scrapping for ecto-parasites

#### Demos:

- > Demonstrationon homozygosity of different strains of mice by different genetic and microsatellite markers
- Primer sequence selection and synthesis
- > Skin and hair scrapping to identify the presence of ecto-parasites
- Biochemical testing of blood samples hematology
- Disease screening by immunological method ELISA
- Basic histopathological techniques involved in health monitoring program

#### Salient Features of the Training:

- > Expert instructors will provide lectures and hands on training
- > Certificate of participation will be issued to the participants
- Exposure to laboratory safety regulations
- One-to-one interaction with the trainers
- Evaluation assignments and Trouble-shooting sessions

#### Contact details:

Dr. Archana Bharadwaj Siva, Nodal Scientist, Skill Development Program CSIR-CCMB, Hyderabad, sdp@ccmb.res.in **Training Coordinator**: Dr. Jerald Mahesh Kumar, Scientist In-charge, Animal House, CSIR-CCMB, Hyderabad,