



## Training on

# “Genetic & Microbial Monitoring of Animals”

1<sup>st</sup> - 6<sup>th</sup> April 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, Pharmaceutical Science & 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	:	Bachelors/Masters in any branch of Life Science/Allied areas
Dates	:	1 <sup>st</sup> - 6 <sup>th</sup> April 2024
Mode of the Course	:	In-house training at CCMB
Mode of selection	:	Application form & Statement of Purpose
Course Fee	:	Rs. 20,000/- including accommodation

**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:**

- Demonstration on 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](mailto:sdp@ccmb.res.in)

**Training Coordinator:** Dr. Jerald Mahesh Kumar  
Scientist In-charge, Animal House  
CSIR-CCMB, Hyderabad