

## Skill Development Program On “Genetic & Microbial Monitoring of Animals” (GMMA-IV) 05<sup>th</sup> - 13<sup>th</sup> October 2026



The CSIR-Centre for Cellular and Molecular Biology is organizing a hands-on training on “Genetic & Microbial Monitoring of Laboratory Animals”(GMMA-IV) 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.

<b>No. of seats</b>	:	10-15
<b>Minimum Qualification</b>	:	Bachelors/Masters in any branch of Life Science/Allied areas
<b>Mode of the Course</b>	:	In-house training at CCMB, Hyderabad
<b>Mode of selection</b>	:	Application form& Statement of Purpose
<b>Course Fee</b>	:	Rs.18,000/- (including accommodation & GST)
<b>Apply using the link</b>	:	<a href="http://recruitment.ccmb.res.in/training_programs/sdp/">http://recruitment.ccmb.res.in/training_programs/sdp/</a>

### **Training Curriculum:** (lectures and hands-on sessions)

- 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 & Exposure to laboratory safety regulations

### **Hands-on:**

- Genomic DNA isolation from tail samples and genotyping by standard PCR with gene specific and SSLP markers
- Biochemical markers (Hb $\alpha$ , ALP, Albumin, SGPT, etc.) to assess the genotype or genetic contamination
- Tissue collection, DNA & RNA isolation, Complimentary DNA synthesis for DNA & RNA viruses
- Identification of infective agents by PCR,RT-PCR and Real time PCR (qPCR)
- Preparation and observation of agar plates for microbial cultures from different platforms
- Microbial identification by different staining procedure, biochemical test and ABST
- DNA isolation from individual bacterial colonies and identification of bacteria by PCR
- Hematology by hematology analyzer and immunological testing of pathogen by ELISA
- Fecal examination for endo-parasites and skin scrapping for ecto-parasites

### **Demos:**

- Primer sequence selection, primer design and synthesis
- Basic PCR programming, uses of real time(qPCR) and reverse transcriptase (RT PCR) types
- Buffers and Master mix preparation for DNA,RNA isolations and PCR
- Skin and hair scrapping to identify the presence of ecto-parasites
- Basic histo-pathological techniques involved in health monitoring program

### **Salient Features of the Training:**

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

### **Course Coordinator:**

Dr. Jerald Mahesh Kumar  
Scientist-G & In-charge  
Animal House, CSIR-CCMB,  
Hyderabad.

### **Program Coordinator:**

Dr. Archana Bharadwaj Siva  
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Scan to Apply

