

# CSIR Integrated Skill Initiative



## **Certificate course on Skill Development in Care, Management of Laboratory Animals & Experimental Techniques CSIR-CDRI**



CSIR-CDRI is a unique R & D Institution in the country with state of the art infrastructure for new drug discovery and development from “Concept to Commercialization”. It is poised to become a global leader through cutting edge science & technology. For New India, the Institute is re orienting itself into a multidisciplinary nodal centre for development of drug for the unmet medical needs as well as the expectation of the industry. While focusing on the discovery & development of drugs, the institute is aligned & contributing towards the national missions programmes such as Make in India, Swatch Bharat, Skill India, Digital India, Start-up India, Accessible India and Sashakt Bharat.

The objectives of this training course are to generate skilled human resources ready for employment in the industry and academia. This is a unique opportunity for skill development and basic training in the area of laboratory animal care, management and experimentation. The course will cover the basic of how to manage animal facility, routine care and husbandry practices of animals, experimental procedures and techniques, quality control procedures etc. The trained and skilled candidates will have good job prospect in the area of biomedical research, animal facilities in public and private research institutes, Pharma industries, and academia. The candidates will have opportunity to good exposure for laboratory animals including Non Human Primates available at State of art Laboratory Animal Facility, CSIR-CDRI.

CSIR-CDRI invites applications for ‘**Certificate course on Care, Management of Laboratory Animals & Experimental Techniques**’ as per the details given below:

<b>Title of the course</b>	<b>: Certificate course on Care, Management of Laboratory Animals &amp; Experimental Techniques</b>
<b>Duration</b>	<b>: 6 Weeks</b>
<b>No of Seats</b>	<b>: 20</b>
<b>Educational Qualification</b>	<b>: 10+2 onwards (Science stream will be preferred)</b>
<b>Age Group</b>	<b>: 18-41 years (Open as per Educational Qualification)</b>
<b>Date of Commencement</b>	<b>: 12<sup>th</sup> Nov-21<sup>st</sup> Dec’2018 (CMLAET02)</b>
<b>Venue of the course</b>	<b>: CSIR-CDRI, Lucknow</b>
<b>Course Fee</b>	<b>: Rs. 5000/-</b>
<b>Sponsorship</b>	<b>: Public/private sectors are welcomed for the sponsorship.</b>

## **TRAINING CURRICULUM**

1. **Basic Principles of Laboratory Animal's Care & Management:**  
General introduction to research animals of various species, their biology and behavior, basic laboratory animal husbandry practices, animal facility layout and functional units, general routine sanitation and hygiene practices, cleaning, washing and sterilization of animal cages, racks, and bedding etc.
2. **Breeding Techniques of different species of Laboratory Animals:**  
Basic introduction to different methods of breeding practices, inbreeding and out breeding, factors responsible for successful breeding of animals, setting and caring of breeding colonies, Breeding and management of transgenic, knockouts and other genetically modified animal models genetic characterization of animals etc.
3. **Experimental techniques in Laboratory Animals:**  
Hands on training on basic experimental techniques on laboratory animals like animal handling and restraining, routes of administration, sampling techniques, necropsy techniques, anaesthesia and euthanasia in animals etc.
4. **Patho-physiology of commonly occurring diseases and their preventive measures:**  
Basic introduction to common diseases observed in animals, implementation of health monitoring program and methodologies, prevention and treatment of diseases etc.
5. **Record keeping & Documentation:**  
Recording and upkeep of various kinds of records related to animal breeding, receipt, distribution and dispatch of animals, feed and bedding, disposal records etc.
6. **Animal Nutrition: Basic requirements of animal nutrition, preparation and formulation of animal feed, storage and distribution of animal feed, quality analysis etc.**
7. **Animals Ethics & Welfare.**  
Basic concepts on animal welfare and ethics, introduction to animal national and international regulations and guidelines related to animal welfare, preparation and designing animal experimental protocol, Institutional Animal Ethics Committee (IAEC) and its functionaries etc.

## **SALIENT FEATURES OF THE TRAINING**

- About 40% Theory and 60% Practical sessions as per course curriculum
- Hands on training
- Job oriented curriculum
- Understanding basic principles
- Lectures assisted with multimedia aids
- Interactive session
- Exposure to animal's health and genetic monitoring techniques.
- Brief Hands-on practical exposure on the state-of-the-art equipments
- Planning, setting of breeding and obtaining meaningful results
- Troubleshooting

## **EVALUATION OF TRAINEES**

Evaluation will consist of the following components

### **Theory Courses (50 Marks)**

- (a) Continuous assessment through assignments
- (b) Term end examination

### **Practical Courses (50 Marks)**

- (a) Demonstration of Experimental techniques
- (b) Guided breeding and management techniques

## **CERTIFICATION**

Certificate will be issued to the successful candidates for the course