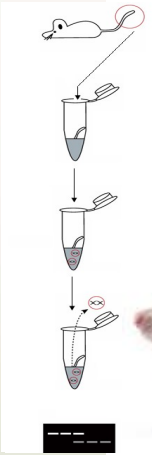

4.9 ★ 4.9 of 5 stars 41 reviews

Biotech Training Project

Certificate Course in Laboratory Animal: Mouse Genotyping

Theory sessions:

A. Biology basics: important topics in animal studies (for Non-Life Sciences students and faculties)
Population, individuals, vertebrate and invertebrate, body: organs and systems, all systems: Blood vascular systems, Nervous system, Reproductive system etc., Tissues and cells, Cell as an unit of life, Central dogma of molecular biology, DNA, RNA and Protein, Carbohydrates, Fat and lipids, minerals and vitamins, Metals, Cell Cycle. Anatomy and physiology of the laboratory animals with reference to overall understanding of the laboratory experiments in animals. (2 weeks)

B. Introduction and understanding of the science of laboratory animal: Importance of lab animals, hygiene, disinfectant, sterilization, housing, environmental control, anatomy, animal sexing, physiology, body systems and physiology, genetics, breeding, genetic monitoring, animal feed and nutritional requirement, euthanasia experimentation, record maintenance, transgenic technology in general, animal models of human diseases: sickle cell disease: Berk low gamma, Berk medium gamma, NY1DD, SS Antiles, Control mice: C57 and BalbC mice, , animal ethics, rules and regulations. health hazard and safe practices, design and conduct of animal experiments, ethical and legislative aspects. (2 weeks)

C. Theory of wet lab protocols: Theory and concept of PCR, applications of PCR in lab animal studies Cytochrom oxidase, DNA extraction, PCR, electrophoresis theory and calculations, Gel documentation for demonstration purpose with Quantity one software analysis of PCR results. (2 weeks)

Hands on training: Laboratory experiments 1. DNA extraction from mice tail / blood; PCR with DNA electrophoresis for genotyping for lab animal detection and molecular taxonomy studies: 2. COI gene detection, 4. SNP based mouse detection PCR 5. single nucleotide polymorphisms SNP-PCR, 6. Bioinformatics and data analysis for mouse genotyping studies (2 weeks)

Duration and fees
60 days course for graduates and post graduates in Veterinary Science, Life Sciences and Biotechnology,
Price: Rs. 40, 000/-
60 days course for Non Life sciences and non veterinary sciences students and faculties,
Price: Rs. 45,000/-

For admission, send completely filled registration form to ATG LAB, 1- Saurabha Apartment, Ganesh Nagar, Pimple Nilakh, Pune 411027. For more information, read registration form. Call 02065104543 or 9921446321 or email to atgbiotechproject@gmail.com For further details of earlier projects and facilities, visit www.biotechtrainingproject.com