Training Programme in Engineering Zebrafish with CRISPR Tools

CCMB proposes a training course in genome engineering of zebrafish embryos using gene-editing technology-CRISPRs to generate human resources that are employment-ready for the requirements of industries and academia. The program targets students and employees from government labs/ Institutes, Industries, Hospitals, Pathology Laboratories, Universities with a view to train them to be able to design and construct CRISPR constructs and generate knock-out and knock-in zebrafish transgenic lines.

Duration	:	2 weeks
No. of seats	:	8-10 No.s
Education Qualifications	:	B.Tech., M.Sc, B.V.Sc., MBBS (minimum)
Age group	:	21-45 years (relaxation for SC/ST/OBC as per GOI rules
Date of Commencement	:	4th to 18th September 2023
Venue of the Course	:	Zebrafish facility, CSIR-CCMB
Course Fee	:	Rs. 30,000/- (self/sponsored)
Residential/non-residential	:	Residential (accommodation provided)

Sponsorship: Established public/private sectors are welcomed to sponsor candidates of their interest.

Training Curriculum for Course:

- Concepts of genome editing and engineering
- Zebrafish husbandry, breeding set up
- Design of sgRNA, donor oligos and donor-targeting vectors
- Cloning of sgRNAs, preparations of CRISPR constructs for microinjections
- Microinjection of CRISPR constructs into zebrafish embryos
- Morphological analysis of CRISPR embryos, juveniles and adults

Salient Features of the Training:

- 20% theory and 80% practical sessions are as per the course curriculum.
- Hand-out information on teaching modules
- Tutorials (personal attention)
- Lectures are assisted with multimedia aids
- Central facility visits within the laboratory
- Evaluation by assignments/ exams
- A certificate will be issued to the successful candidates