Training Program for Applied Bioinformatics

CCMB proposes a training course in bioinformatics to generate human resources that are employment-ready for the requirements of clinical data analysis, analyses of sequencing data both in industry and research laboratories. This course is targeted towards students with a biology background, who have some inclination towards computational techniques and programming.

Duration	:	6 weeks (basic course), 8 weeks (advanced course)
No. of seats	:	12 No.s (basic course), 6 No.s (advanced course)
Education Qualifications	:	B.Sc., B.Tech., B.V.Sc., MBBS for basic course M.Sc., M.Tech.,M.V.Sc., MD/MS for advanced course
Age group	:	21-45 years (relaxation for SC/ST/OBC as per GOI Rules)
Date of Commencement	:	17th July 2017
Venue of the Course	:	iHub; Annexe-II, CSIR-CCMB
Course Fee	:	Rs. 50,000/- for basic course (self/sponsored) Rs. 75,000/- for advanced course (self/sponsored)
Residential/non-residential	:	Optional (accommodation provided, if required)

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

Training Curriculum for Basic Course:

- Introduction to computers and Linux OS
- Introduction to biological databases
- Introduction to sequence analysis: pair-wise alignment, multiple alignment and profile-based search
- Introduction to evolution theory and evolutionary mechanisms
- Phylogenetic analysis using PHYLIP suite of programs
- Using genome browsers
- Introduction to the Galaxy suite of tools
- Basic statistics using R

Training Curriculum for Advanced Course (in addition to the topics in the basic course):

- Introduction to NGS technology
- NGS analysis: whole genome *de novo* sequencing analysis, whole genome re-sequencing analysis, transcriptome *de novo* sequencing analysis, transcriptome resequencing analysis, small RNA sequencing analysis
- Applications of NGS”

Salient Features of the Training:

- 25% theory and 75% practical sessions are per the course curriculum
- Hand-out information on teaching modules
- Tutorials (personal attention)
- Lectures are assisted with multimedia aids
- Case studies
- Group discussions
- Central facility visits within the laboratory
- Evaluation by assignments and weekly exams
- A certificate will be issued to the successful candidates