

Capacity building **WORKSHOPS** for researchers and students

We frequently conduct **WORKSHOPS WITH** a lot of practical/hands-on sessions

COMING SOON in June & July

2-3 DAYS' COURSES

Basic bioinformatics & basic data mining, with an overview of system biology & synthetic biology [2 days]

NGS & Data Analysis [3 days]

Functional OMICS data analysis [2 days]

Microarray & Data Analysis, including 'R' [3 days]

ONE DAY COURSES

IPR, GMP, GLP, Drug discovery, Clinical trials & GCPs

Higher studies (India/abroad, including PhD), getting jobs and planning a successful career

Click here for FEES & OTHER DETAILS

Also note our individualized online training programs



I. BASIC BIOINFORMATICS AND BASIC DATA MINING WITH AN OVERVIEW OF SYSTEM BIOLOGY AND SYNTHETIC BIOLOGY

DAY-1:

- Demystifying modern biology, biotechnology, bioinformatics, systems biology, synthetic biology and current trends in omics
- Advanced strategies in literature based data mining and biocuration [demo & hands-on]

DAY-2:

- Gene-based data mining using NCBI Entrez Gene
- Case studies for selected genes, proteins and diseases [demo & hands-on]

2. NEXT GENERATION SEQUENCING & DATA ANALYSIS

DAY-1:

- An overview of NGS technology
- NGS applications to genomics & transcriptomics, and conceptual discussions
- FASTQ format, depth and coverage of reads
- NGS data retrieval using SRA & ENA [demo & hands-on]
- Quality analysis and trimming of raw reads [demo & hands-on]

DAY-2:

- NGS whole-genome & exome sequencing, and reference assembly
- Reference genomes retrieval using UCSC [demo]
- Reference alignment of NGS reads [demo & hands-on]
- SNP analysis, filtering and annotation [demo & hands-on]
- *De-novo* assembly concepts and annotation process
- *De-novo* assembly of reads to contigs [demo & hands-on]

DAY-3:

- RNA-sequencing and concepts
- Identification of gene & transcript levels, and differential expression [demo & hands-on]
- Metagenomics, the need & approach, and resources
- Metagenomics analysis of NGS reads [demo]

3. FUNCTIONAL OMICS DATA ANALYSIS

DAY-1:

- Introduction to protein-interactions, non-coding RNA, ontology and pathways
- Case studies on molecular interactions [demo & hands-on]
- Case studies on pathways [demo & hands-on]

DAY-2:

- An overview on functional analysis process and tools
- Gene Ontology information retrieval [demo]
- Gene-set enrichment analysis using DAVID functional analysis tool [demo & hands-on]
- Network analysis using Cytoscape [demo & hands on]

4. IPR, GMP, GLP, DRUG DISCOVERY, CLINICAL TRIALS & GCPS

Interactive sessions on industrially relevant concepts and regulatory aspects.

5. MICROARRAY & DATA ANALYSIS

DAY-1:

- Gene expression studies, microarray technology: an overview
- Data files, and analysis workflow
- Applications and repositories
- Data retrieval using GEO & ArrayExpress [demo & hands-on]

DAY-2:

- Normalization and clustering principles
- Differential expression analysis
- Microarray data analysis using R package [demo & hands-on]

DAY-3:

- Microarray resources, and data retrieval
- Network analysis using 'R' [demo & hands-on]
- Case studies using microarray resources with BioGPS [demo & hands-on]
- Microarray data analysis using online tools [demo & hands-on]

6. HIGHER STUDIES (INDIA/ABROAD), GETTING JOBS AND PLANNING A SUCCESSFUL CAREER:

Opportunity to take entry into a unique bio-recruiters' database

Discussions and counseling for choices on all following aspects: PhD, MS, MTech, jobs in various sectors, and long term planning.

FEES & OTHER DETAILS

Rs. 2,000 to 10,000 per day for professionals

50% discount per person for students and unemployed youth (please contact for specifics)

Group applicants and applicants at economic disadvantages may also get a discount.

The training location will be in Electronic City, Phase I, Bengaluru.

Please contact us for details.

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