

HANDS ON WORKSHOP ON BASICS IN BIOINFORMATICS

3rd- 5th May 2018

Venue : *ImmuGenix Biosciences*

Who can attend: Any one with basic knowledge in Life Science, Genomics and Proteomics, and would like to receive a comprehensive overview and hands on experience in bioinformatics analysis and to expertise with bioinformatics software's.

Target Audience:

- **Students-** Bachelors and Masters,
- **Scholars** – JRF, SRF, and PhD,
- **Faculty's** from any Biological Sciences.

**20
Participants
Only**

Hands-on exercises will be performed individually using many user-friendly software tools on **your own laptops**. (no prior experience required).

Headings	Topics covered
Introduction to Biological Databases	Different types of biological databases - GenBank, the European Molecular Biology Laboratory (EMBL) database and the DNA Data Bank of Japan (DDBJ), Retrieval of information from biological databases, etc
DNA sequence analysis	How to read a DNA seq chromatogram, trimming and editing of DNA seq, Contigs using forward and reverse sequences, Database similarity searching – example Basic Local Alignment Search Tool (BLAST), etc
Mutation analysis	Detection of point - Silent, Missense, and Nonsense mutations, frameshift, deletion, and insertions mutation, synonymous and non synonymous, etc
Sequence alignment	Multiple and Pairwise alignment of DNA and protein sequences
Primer designing	Designing of PCR primers and Real time PCR probes. Oligo analyser tool
<i>In silico analysis</i>	In silico PCR, RFLP, PFGE, T-RFLP, PCR-RFLP, AFLP-PCR, and DNA finger printing
Phylogenetic analysis	Construction of phylogenetic tree to understand the evolutionary relationships among individuals or groups of organisms.
MLST/eBURST analysis	Multilocus sequence typing - unambiguous procedure for characterising or typing isolates of microbial species using seven house-keeping genes and eBURST analysis with examples
Many other tools	In silico DNA to Protein, Prediction of Protein structure, Signal peptide, Protein Motifs and Domain, ORF finding, IS element finding, Gene and Promoter Prediction, Virulence and antibiotic resistance gene prediction

Registration Fee: Students- Rs. 2,000/-, **Scholars** – Rs. 2500/-, & **Faculty's-** Rs. 3500/-

For Registration Please contact:

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