

Online Hands-on Training

Basic and Advanced Computational Tools for Molecular Genetics



16- 22 February, 2021

Organized By

Fish Genetics and Biotechnology Division
ICAR- Central Institute of Fisheries Education
(University under Sec. 3 of UGC Act)
Panch Marg, Off Yari Road
Versova, Mumbai 400 061

Background

Recent advances in sequencing technologies have led to unravelling of genomic information from the model and non-model organisms at an affordable cost. Novel algorithms and computational tools are required to harness meaningful information from the high-throughput DNA sequence data. Accordingly, different computational tools have been developed to analyse sequence data in order to estimate biodiversity, resolve taxonomic ambiguity, develop molecular markers, and identify novel genes. In addition, several researchers also continue to use sequence variation at known loci for taxonomic delineation.

Hence, this online training program is designed to impart hands-on training on basic and advanced computational tools (Geneious Prime) for molecular data analysis. Geneious Prime is a user-friendly and affordable software for analysing small as well as high-throughput DNA sequence data. The trainees will be provided a license key of the software during the training. The course contents are as below. The minimum laptop/desktop configuration required is 4 GB RAM.

Program Director

Dr. Gopal Krishna
Director & VC, ICAR-CIFE

Course Director

Dr. Aparna Chaudhari
Head, FGB Division

Course Coordinators

Dr. M.P. Brahmane
Principal Scientist

Dr. Pavan Kumar A.
Senior Scientist

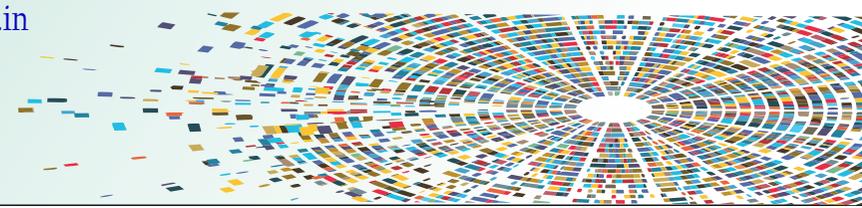
Mr. Kiran Rasal
Scientist

For details please contact

Dr. Aparna Chaudhari

aparnac@cife.edu.in / hod.fgb@cife.edu.in

Website: www.cife.edu.in



Course content

- Introduction to Sanger and Next Generation Sequencing Technologies
- Introduction to bioinformatics tools
- Sequence databases and their utility
- Sequence retrieval and analysis
- Sequence alignment using web-based tools
- Phylogenetic analysis
- Primer designing
- DNA Barcode data analysis
- NGS data analysis using Geneious Prime (Metagenomics, Metabarcoding)
- Identification of SSR and SNPs from NGS data and development of markers

Dates: 16th to 22nd Feb 2021

Registration fee: Rs. 1500/- for students, Rs. 5000/- for faculty

Eligibility: PG students, Research Scholars, Assistant Professors and Scientists

Last date of application: 10th Feb 2021

How to apply: Interested candidates can send duly filled up or typed registration forms along with fee receipt to aparnac@cife.edu.in / hod.fgb@cife.edu.in

Bank details for registration fee transfer

Account Name : ICAR Unit CIFE, Mumbai

Name of the Bank : State Bank of India

Account Number : 10132355212

IFSC Code : SBIN0003117

About CIFE

ICAR-Central Institute of Fisheries Education (Deemed University) is India's only national fisheries university. It is a premier institution dedicated to promoting higher fisheries education through generation of high quality human resource, high end research in both basic and applied aspects, generation of appropriate technologies and their dissemination. CIFE alumni constitute the country's present leadership in this sector.

Fish Genetics and Biotechnology Division has been working in the area of molecular genetics since last two decades. In recent years, we have developed species specific DNA barcodes and delimited monogenean parasites, crustaceans, molluscs, elasmobranchs and teleosts with confirmatory nuclear markers. The Division has also unravelled the mitochondrial genome of mahseer fishes for species delineation, developed microsatellites and mined SNPs from high-throughput sequence data, and has expertise in the area of molecular genetics.



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(16- 22 February, 2021)

Registration Form

Name

Occupation

Affiliation

Address

Mobile No & email:

Educational Qualification

Sex

Experience in the field (if any)

Reason of attending

Forwarded by HOD/PI/ Head of Institution
(In-service candidates only)

Signature of the Candidate