



**Bioinformatics Infrastructure Facilities (BIF) under Department of Biotechnology
&**

ICAR-NATIONAL RESEARCH CENTRE ON EQUINES, SIRSA ROAD, HISAR

BIF-BTBI-NRCE-HISAR

**NATIONAL RESEARCH CENTRE ON EQUINES,
SIRSA ROAD, HISAR**

Subject: Three days hands on training in “Bioinformatics tools & their application in biological research”

Dear Professional Colleague,

It is a pleasure to inform you that the Bioinformatics Infrastructure Facility-Biology Teaching through Bioinformatics (BIF-BTBI), ICAR-National Research Centre on Equines, Hisar (BIF-NRCE) is organizing 3 days hands-on-training in Bioinformatics on **“Bioinformatics tools & their application in biological research”**. The training venue will be BIF Laboratory of NCVTC, ICAR-NRCE, Hisar from 5th-7th Sept., 2017, under the patronage of DBT-BIF Program sponsored by Department of Biotechnology, Govt. of India, New Delhi in collaboration with ICAR-National Research Centre on Equines, Hisar.

The main thrust of the workshop will be on Introduction to concepts in sequence analysis, genomic/proteomic databases, Mega-BLAST, BLAT, FASTA etc and practical on net terminals supported by NKN.

This 3-day training schedule is best suited for students-Undergraduate, Post-Graduate from the streams of biology including zoology, botany, animal sciences, agricultural sciences and other life science background from Colleges, Universities, Research Institutions and company professionals.

We request you to attend the workshop or encourage your colleagues and scholars to participate in the workshop.

With kind regards,

R K Vaid and Sanjay Kumar
Coordinator, BIF-BTBI



DEPARTMENT OF BIOTECHNOLOGY
Ministry of Science & Technology



ICAR & DBT sponsored Workshop on Bioinformatics tools & their application in biological research

ICAR-NRCE, NCVTC, Hisar
05th-07th Sept., 2017

Preamble: A practical workshop: an introduction to basic bioinformatics. For students with basic biological background in molecular biology, to learn how and where to process and work with biological data using computational tools. Workshop will provide required theoretical and hands-on-training in the area of sequence data analysis, emphasizing the alignment and interpretation of sequences by publicly available bioinformatics analysis tools, on net terminals supported by NKN.

The talks on topics are interwoven with simple practical exercises, discussion, and hands-on-training, so as to make sure that attendees understand the concepts.

At the end, you should be able to tackle simple basic bioinformatics problem: you will know where to get the required data from, how to obtain relevant information and how basic software and algorithms work. Our aim is to facilitate your understanding of biological data. Certificates will be awarded to trainees after attending all Lectures/practical.

CONTENTS:

- Bioinformatics web resources & tools, online databases and retrieval of biological information
- Designing of PCR primers and analysis on nucleotide sequence raw data.
- Nucleotide database and sequence retrieval,
- Nucleotide sequence Analysis
 - Sequence alignments; sequence similarity, scoring matrices, gaps.
 - BLAST and its Applications;
 - ORF analysis
 - Phylogenetic analysis
 - Sequence annotation
- Protein Sequence Analysis tools and database

LEVEL OF PARTICIPANTS: Researchers, PG students from the disciplines of biology, agricultural sciences, veterinary, and medical. Young academicians/research scholars/PG students from academic, scientific and industrial setups working or desirous of working in the areas of biotechnology, microbiology, and various other branches of Life Sciences are invited to attend the seminar cum workshop.

PREREQUISITES: Basic knowledge of computer

NUMBER OF PARTICIPANTS: Restricted to 16 to 20. Boarding & lodging arrangements etc. have to be managed by the participant. Working lunch and session tea included.

REGISTRATION FEE:

Academic Researchers/Scientist: Rs 1000.00 per person

RA/SRF/YP/Post-graduate students: Rs 500.00 per person

The registration fee includes workshop material and working lunch for all the three days of the workshop. The selected candidates upon intimation may send the DD/Multicity Cheque for the amount specified, in favour of Director, NRCE, Hisar

- **No of Participants : 20**
- **Application:** Registration form can be downloaded from the website www.nrce.gov.in. And request from coordinators by e-mail.

Dr R K Vaid, and Dr Sanjay Kumar
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Coordinator BIF
National Centre for Veterinary Type Cultures,
National Research Centre on Equines,
Sirsa Road, Hisar
Haryana ,
Email :bif.nrce@gmail.com; rk_vaid@yahoo.com, sanjay.nrce@gmail.com

Deadline: 01.09.2017 (1700 HRS)

APPLICATION FORM
ICAR & DBT Sponsored

BIF-BTBI training on

Bioinformatics tools & their application in biological research

NRCE, Hisar 05-07 Sept. 2017

PERSONAL DATA

Last Surname:

First and other names:

Date of birth:

Gender:

PROFESSIONAL DATA

Institutional affiliation (main):

PI or Project Name:

Institutional affiliation (department, lab):

Institutional address:

Business Telephone Number:

E-mail address:

DD/Cheque Amount/date/ Number

Applicant questionnaire:

1) Are you currently working in this field? (yes/no)

If Yes, please briefly explain:

If No, how do you plan to use the things you will learn on this course?

3) Which tools have you used so far to analyse data?

4) What do you expect to learn from this course? □

5) How would this course benefit your research and/or the work from your group/department?

(Signature of trainee)