भाकृअनुप
ICAR

राष्ट्रीय मत्स्य आनुवंशिक संसाधन ब्यूरो
National Bureau of Fish Genetic Resources

NBFGR

डा. जे.के. जेना, निदेशक
Dr J.K. Jena, Director

Ref. No. : G/WSB/2013

Dated: August 6, 2013

Dear Sir,

I am pleased to inform that the National Bureau of Fish Genetic Resources (NBFGR), Lucknow is going to organize Subject-Matter training program entitled "Bioinformatic approaches in genomics, transcriptomics and proteomics" from November 12th - 22nd, 2013 under the NAIP funded project 'Establishment of National Agricultural Bioinformatics Grid' (NABG) in ICAR. The aim of the training is to make researchers acquainted with tools and softwares for analyzing fish genome, transcriptome, and proteome data. During the training programme special emphasis will be laid on practical sessions.

You are requested to kindly nominate one or two scientific personnel of your Institute/ Organization/ University for participating in the training program. The brochures and application form are available at http://mail.nbfgr.res.in/nabg_nbfgr/. The nomination of the sponsored candidates may please be sent to Dr. AK Pathak, Co-ordinator of the programme at pathakajey@gmail.com or nabg.nbfgr@gmail.com on or before October 1st 2013. The brochure of the training programme is attached herewith for your kind reference.

With kind regards,

Yours Sincerely

Encl.: As above.

(**J.K. Jena**)

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jkjena2@rediffmail.com
Website : www.nbfgr.res.in

Bioinformatic Approaches in Genomics, Transcriptomics and Proteomics

APPLICATION FORM

Name of Applicant: _____

Designation: _____

Name of organization: _____

Office address : _____

Landline No : _____

Mobile No : _____

email address : _____

Area of research : _____

Bioinformatics related experience : _____

Date: Signature of Applicant

Signature of the Competent Authority

Instructions to participants:

- The complete application in all respect accompanied with brief biodata may be sent by email to nabg.nbfgr@gmail.com with copy to nagpurens@yahoo.co.in and pathakajey@rediffmail.com latest by Oct 1st, 2013.
- The applications must be forwarded by Competent Authority of the respective Institute/University.
- The application form and other details are available at URL: http://www.nbfgr.res.in/.
- The selected participants will be paid TA/DA (restricted to 2AC Rail fare) as per the NAIP norms.

Objectives of the Training

- To acquaint the participants about applications of bioinformatics in genomics, proteomics and transcriptomics.
- To apprise the participants about various resources and aids of bioinformatics with special emphasis on hands-on training.

Course Contents

Genome Analysis

- Sequence Alignment
- Comparative Genomics
- Gene Annotation
- Next Generation Sequencing Data Analysis by CLC Bio

Proteomics

- Molecular modeling, Docking and Dynamics of Proteins

Transcriptome Data Analysis

- EST Data Analysis
- Genetic Diversity Analysis

Bioinformatics Resources and Aids

- Database Development & Programing: PHP, Perl and MySQL
- Introduction to R/Bioconductors

Eligibility

Scientists/researchers/faculty members from NARS and conventional universities working in biological sciences and bioinformatics.

Maximum number of participants: 25

Last date for receipt of application: Oct 1st, 2013.

Intimation to selected candidates: Oct 3rd, 2013.

How to apply

Eligible candidates from ICAR/SAUs/Conventional Universities may apply on the prescribed application form available in the brochure accompanied with brief biodata on or before Oct 1st, 2013. The selected applicants will be informed by email.

Training Programme on Bioinformatic Approaches *in* Genomics, Transcriptomics and Proteomics

Under

National Agricultural Bioinformatics Grid

November 12 - 22, 2013

Sponsoring Agency

National Agricultural Innovation Project

Indian Council of Agricultural Research

राष्ट्रीय मत्स्य आनुवांशिक संसाधन ब्यूरो
(भारतीय कृषि अनुसंधान परिषद्)

National Bureau of Fish Genetic Resources
(Indian Council of Agricultural Research)

How to reach

NBFGR is located at about 6 kms away from Charbagh Railway Station and 10 kms from CCS, Amausi Airport. It is well connected with Taxi/Auto services.

Climate

During November, the Lucknow city experiences pleasant weather with temperature between 20-25^{0}C, which is an ideal month to visit the city.

Organizers

Dr. J. K. Jena
Director, NBFGR

Convener: Dr. N. S. Nagpure
HOD, MBB & CCPI (NABG)

Coordinators: Shri A. K. Pathak, Sr. Scientist
Dr. Mahender Singh, Sr. Scientist

हर कदम, हर डगर
किसानों का हमसफर
भारतीय कृषि अनुसंधान परिषद
भाकृअनुप
ICAR
Agrisearch with a human touch

For further query please contact

Director
National Bureau of Fish Genetic Resources
(Indian Council of Agricultural Research)
Canal Ring Road, P.O. Dilkusha, Lucknow-226002, U.P. INDIA
Phone: (0522) 2441735, 2442441, 2440145 **Fax:** 91-522-2442403
Email: nbfgr@sancharnet.in; director@nbfgr.res.in

About the Training

The completion of Human Genome Project (HGP) in 2003 coordinated by the U.S. Department of Energy and National Institute of Health opened up opportunities to sequence and analyze other model organisms. The genome of model organism in fishes that were sequenced after HGP included zebrafish, fugu, tetraodon, medaka, threespine stickleback, Atlantic salmon, Nile tilapia, common carp, and elephant shark. These whole genome sequencing projects yielded a vast array of genomics, transcriptomics and proteomics, data to the scientific community for strengthening research and building capacity for technological revolutions and human resource development. In an effort toward human resource development, NBFGR has taken opportunity under the NABG project to organize a training programme on computational analysis of "omics" data, for scientists/researchers/faculty members working in biological sciences and bioinformatics. The programme aims to educate the participants about the sequence alignment, gene annotation and comparative genomics of model fishes, analyzing the Next Generation Sequencing data, generating 3D structure of fish proteins from their amino acids, molecular docking and dynamics of protein complexes. Further, the training covers fish EST data analysis and genetic diversity analysis at molecular level using various computational approaches. Additionally, the participants will be exposed to the R/Bio conductor and basics of database development and programming using relational database management system (MySQL) and programming languages like Perl, PHP and R.

About NBFGR

National Bureau of Fish Genetic Resources established in 1983 has been emerged as a "**Center of Excellence**" in cataloguing and conserving aquatic bio-resources of India. Bureau is promoting database development, genotyping, registration of aquatic germplasm, genebanking and evaluation of endangered and exotic fish species. It has developed state-of-art facilities for molecular genomic and proteomic research, gene banking, tissue repository, cell culture and DNA barcoding laboratories. It has been identified as a domain center to collect and compile the information on fish genomics under National Agricultural Bioinformatics Grid (NABG).

About NABG

In order to strengthen research activities in agricultural bioinformatics for the country and meet the technological requirements, Indian Council of Agricultural Research, New Delhi initiated a programme to set up an Agricultural Bioinformatics Grid for the nation. In this context, a mega project "**Establishment of National Agricultural Bioinformatics Grid in ICAR (NABG)**" funded by "**National Agricultural Innovation Project**" was launched in 2010 that aims to provide inter disciplinary research in cross-species genomics and building capacity for research and development in agricultural biotechnology and bioinformatics. Under the project, six genomic resource databases for the fishes reported from Indian sub-continent have been developed so far, by collecting and collating data from diverse public data sources. Under the project already one sensitization and two subject matter trainings have been organized to promote the fish bioinformatics in National Agricultural Research System.