



राष्ट्रीय पशु आनुवंशिक संसाधन ब्यूरो
NATIONAL BUREAU OF ANIMAL GENETIC RESOURCES
(I.C.A.R.)



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डॉ बी.के. जोशी

निदेशक

Dr. B.K. Joshi

Director

Ref No.: G/NABG/2013

Dated: September 16, 2013

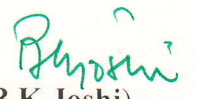
Dear Sir,

I am pleased to inform that National Bureau of Animal Genetic Resources (NBAGR), Karnal is going to organize Subject-Matter training program entitled **“Computational Tools for Animal Genome Resource Data Analysis” from December 2-13, 2013** under the NAIP funded project establishment of National Agricultural Bioinformatics Grid (NABG) in ICAR. The aim of the training is to make researcher acquainted with state of the art tools in animal bioinformatics for analyzing animal genome, transcriptome, gene annotation and comparative genomics. It also covers Next Generation Sequencing data analysis, livestock EST data analysis, and genome wide association studies. During the training programme special emphasis will be laid on practical hands on sessions.

You are requested to kindly nominate one or two scientific personnel of your Institute /Organisation/ University for participating in the training program. The brochures and application form are available at <http://www.nbagr.res.in>. The nomination of the sponsored candidates may please be sent to Dr Karan Veer Singh, Coordinator of the programme at **nabg.nbagr@gmail.com** on or before October 25 2013. The brochure of the training programme is attached herewith for your kind reference.

With kind regards,

Yours Sincerely


(B.K Joshi)

Encl.: As above



Subject Training on “Computational Tools for Animal Genome Resource Data Analysis” December 02-13, 2013

Organised by : National Bureau of Animal Genetic Resources
GT Road Bypass (Near ITI Chowk) Karnal -132001 (Haryana) (<http://www.nbagr.res.in/>)

Under NAIP Subproject

“Establishment of National Agricultural Bioinformatics Grid (NABG) in ICAR”

Completion of Human Genome Project followed by availability of genome assemblies of a number of livestock and poultry species has opened up opportunities to genomic and proteomics studies for achieving goals of sufficient food production. Genome sequencing has yielded a vast array of genomic, transcriptomic and proteomic data. Sequencing technologies are also being applied to the study of microbiome of animals to understand the symbiotic and pathogenic relationships between micro-flora and hosts. Bioinformatics amalgamates the knowledge of computers, molecular biology, statistical concepts and mathematical principles to draw important inferences of the ongoing life processes. Advanced bioinformatics tools are needed to exploit genomic sequence information and related genetic information for improvement and conservation of animal biodiversity. These tools will increase our understanding of the genes responsible for various adaptation and economically important traits, providing the opportunity for improvement of animals for better production and formulation of genetic strategies for conservation of animal genetic resources.

In an effort toward human resource development in animal bioinformatics and genomics, NBAGR has taken opportunity under the NAIP-NABG project to organize a training programme on computational analysis of "omics" data for scientists/ researchers/ faculty members working in animal sciences.

About the Institute

National Bureau of Animal Genetic Resources (NBAGR) is one of the leading institutes under Animal Science Division of the Indian Council of Agricultural Research (ICAR). It has a working mandate of identification, characterisation, conservation and utilization of animal genetic resources. Since its establishment in 1984, the institute has been working on cytogenetics, immunogenetics, phenotypic and genetic characterization, and genomic studies of indigenous livestock breeds for revealing unique valuable traits of disease resistance and adaptability. Remarkable achievements in development of databases, and characterisation and registration of animal genetic resources have been realized. Currently the institute is focussing on bioinformatics and genomic studies on livestock and poultry species..

About the Karnal City : Karnal, the land of Raja Karan, is well connected by rail as well as by road on the National Highway -1 located in between New Delhi and Chandigarh on at a distance of 125 km from either side. NBAGR is located at the Bypass near ITI Chowk at a distance of 6 km from the railway station. Kurushetra, the land of Mahabharata and a major tourist attraction is at a distance of 35 km from Karnal. Weather of Karnal in the month of December is little cold but cheerful. Participants are advised to carry warm clothing with them.

NAIP-NABG Project

Indian Council of Agricultural Research, New Delhi initiated a programme to set up an Agricultural Bioinformatics Grid for the National Agricultural Research System through NAIP funding. NAIP subproject "Establishment of National Agricultural Bioinformatics Grid (NABG) in ICAR" (<http://nabg.iasri.res.in/>) was started in 2010 with Indian Agricultural Statistics Research Institute, New Delhi as lead institute. NBAGR is a cooperating institute for animal sciences while national bureaus on plant, fish, insects, micro-organisms are cooperating institutes for respective domains. Under the project, a High Performance Computing (HPC) System with 16 nodes and

40 terabytes of storage facilities has been installed at NBAGR. Bioinformatics software such as CLC-Bio and Discovery Studio has been installed on the HPC System. Animal genomic databases development and bioinformatics research has been taken up. NABG also involves development of trained scientific manpower for taking up research in bioinformatics.

Objectives and Contents

The training on "Computational Tools for Animal Genome Resource Data Analysis" aims to dwell on state of the art tools in animal bioinformatics. It will involve both theory and practical sessions. The programme aims to educate the participants about bioinformatics tools for gene annotation and comparative genomics, Next Generation Sequencing data analysis, livestock EST data analysis, genetic diversity analysis using microsatellite and SNP data, genome wide association, transcriptome analysis, microarray data analysis, protein structure prediction, phylogeny, etc. It will also cover topics on databases, genetic diseases, soft computing techniques, etc.

Expert speakers would be invited from the host institute as well as from reputed ICAR institutes and other organizations.

Eligibility: Scientists/ Researchers/ Teachers/ Technical officers from ICAR institutes, State Agricultural, Animal and Veterinary Science Universities engaged in animal sciences are invited to apply for the training.

Maximum number of participants : 25

How to Apply:

Duly filled application form endorsed by competent authority should reach the training coordinator by **October 25, 2013**. Application may also be sent by email to nabg.nbagr@gmail.com. Applicants will be informed about their selection by **November 1, 2013**.

Travel, Boarding and Lodging

Cost of travel, boarding and lodging of the selected participants will be met out of the available budget in the NAIP-NABG project. Accommodation will be arranged in the NBAGR Guest House. To and fro travel fare restricted to Train AC-II Tier will be reimbursed as per the NAIP norms.

Training Coordinators:

- Dr. Avnish Kumar**
Senior Scientist and CCPI, NAIP-NABG Project
E-mail: avnish.nbagr@icar.org.in
- Dr Karan Veer Singh**
Scientist (SG)
E-mail: karan_veer@yahoo.com

For further query please contact

Director, NBAGR

GT Road, Baldi bypass

P.O. Box 129, Karnal, Haryana. 132001

Phone: 0184-2267918/2267153, Fax: 0184-2267654

Email: directornbagr@gmail.com

National Bureau of Animal Genetic Resources (NBAGR)

GT Road Bypass (Near ITI Chowk), PO Box-129,

Karnal -132001 (Haryana)

Subject Training on

“Computational Tools for Animal Genome Resource Data Analysis”

(December 02-13, 2013)

Under NAIP Subproject

**“Establishment of National Agricultural Bioinformatics Grid
(NABG) in ICAR”**

APPLICATION FORM

Name : _____

Gender (M/F) : _____

Date of Birth : _____

Educational Qualification : _____
(M.Sc./MV.Sc./Ph.D.)

Specialization : _____

Designation : _____

Institution : _____

Address : _____
: _____
: _____

Mobile / Tel. No. : _____

Fax No. : _____

E-Mail : _____

Dated : _____

(Signature of Candidate)

Recommendations of the forwarding Institute

(Signature of Competent Authority with Seal)

Correspondence

Dr Karan Veer Singh

Scientist (SG) and Training Coordinator

E-mail: karan_veer@yahoo.com,

Phone: 0184-2267153 ext. 259

INSTRUCTIONS:

- Complete application should reach us latest by October 25, 2013. Application may be sent by email to nabg.nbagr@gmail.com.
- The applications should be submitted through proper channel.