

Summer short course on  
Genomic and Phenomic tools for  
the analysis of livestock genome

June 14- June 23, 2012



Sponsored by

Education Division, Indian Council of Agricultural Research



National Bureau of Animal Genetic Resources (NBAGR)

Baldi Bypass, P.O. Box-129, Karnal-132001(Haryana)

Website: <http://www.nbagr.res.in>

Application Form

Name : \_\_\_\_\_  
Gender (M/F) : \_\_\_\_\_  
Father's / Husband's Name : \_\_\_\_\_  
Date of Birth (dd/mm/yy) : \_\_\_\_\_  
Educational Qualification (MSc./Ph.D.) : \_\_\_\_\_  
Specialization : \_\_\_\_\_  
Designation : \_\_\_\_\_  
Organization/Institute : \_\_\_\_\_  
Address : \_\_\_\_\_  
Phone : \_\_\_\_\_  
Fax : \_\_\_\_\_  
Email : \_\_\_\_\_  
Correspondence Address : \_\_\_\_\_

(Signature of Head  
of Institute with Seal)

(Signature of candidate)

For Further Details and Correspondence:

**Dr. SP Dixit**

PS & Head, DNA Fingerprinting Division, NBAGR, GT Road,  
Near ITI Chowk, NH-1, Karnal-132 001, Haryana, India  
Phone: 0184-2267918, 2267152\*267 Fax: 0184-2267654  
Mobile: 09416296322  
Email: [dixitsp@gmail.com](mailto:dixitsp@gmail.com)

**About NBAGR & Karnal**

NBAGR aims to identify and conserve indigenous farm animal genetic resources for sustainable utilization and livelihood security. The mandate of bureau is identification, evaluation, characterization, conservation and utilization of livestock and poultry genetic resources of the country. During its more than 25 years of existence, the bureau has worked on phenotypic and genetic characterization of indigenous livestock breeds along with development of information systems on animal genetic resources. Current thrusts of the institute are genome sequencing, association studies of traits of economic importance, development of computational methodologies for animal genetic resources, etc.

The city of Karnal is said to have been founded by Raja Karna, a central character in the Mahabharata war. Karnal is located at 29°41'N 76°59'E/ 29.68°N 76.98°E. It is known for its lush greenery. It is roughly equidistant (125 Km) from New Delhi and Chandigarh and lies on the G.T. road (NH-1) and on the Delhi-Ambala railway line. Weather of Karnal is about 39 degree Celsius during June (<http://weatherclimat.com/india/karnal.html>).

**About the Training**

The training program is designed to provide an exciting meeting on the latest research tools with special emphasis on Genomic and Phenomic tools for the analysis of livestock genome.

The Phenomics aspects will cover the aspects of surveying, data generation, breed characterization and performance recording. The basics tools for analysis of animal breeding data will cover both traditional methods of sire evaluation and also the SNP chip based genome wide association studies. Breed identification based on Phenotypic scoring and DNA based breed signature using DNA data will be discussed. The training will also cover the aspects right from nucleotide data handling—from reading the chromatogram to NCBJ submission with analysis; Multiplex PCR assay designing; Development of DNA signature based on SNPs for various species; Microarray probe designing for gene expression studies; Molecular Beacon, Scorpion, FRET and Syber Green Assay designing; Computational tools for gene mapping, Protein structure prediction and modeling; drug designing using DNA/protein data, epitope mapping and vaccine designing. Biodiversity analysis using SNP & STR data. Patent mapping tools and techniques, Database of indigenous AnGR, SNP Database of indigenous domestic species; soft computing, genome annotations, whole genome assembly and data handling etc.

The expected resource person/faculties are from reputed institutions like IVRI, NDRI, JNU, DBT, IIT, IMTECH, IGIB, (CSIR) as well as from NBAGR.

**Number of Seats:** 25.

**Closing Date:** is 15th May, 2012

**Communication to participants:** By 18th May, 2012

**Eligibility:** Scientists/ Assistant Professors/ Technical Officers and above working in ICAR Institutes/ SAUs with interest in animal genomics/ proteomics/ bioinformatics.

**Travel, Boarding and Lodging:** The cost of boarding and lodging of the selected participants will be met out from grant of the training from ICAR. To and fro travel fare (Restricted to Train AC-III) will be reimbursed for the journey to Karnal by shortest route.



Training  
Coordinators

**Dr. Dinesh Kumar**

Senior Scientist (Biotechnology) DNA Fingerprinting Division  
NBAGR, GT Road, Near ITI Chowk, NH-1  
Karnal-132 001, Haryana, India  
Phone: 0184-2267918, 2267152\*259  
Mobile: 09416111753  
Email: [dineshkumarbhu@gmail.com](mailto:dineshkumarbhu@gmail.com)

**Dr S Jayakumar**

Scientist (AGB), DNA Fingerprinting Division  
NBAGR, GT Road, Near ITI Chowk, NH-1  
Karnal-132 001, Haryana, India  
Phone: 0184-2267918, 2267152\*271  
Mobile: 08901294046  
Email: [jeyvet@gmail.com](mailto:jeyvet@gmail.com)

