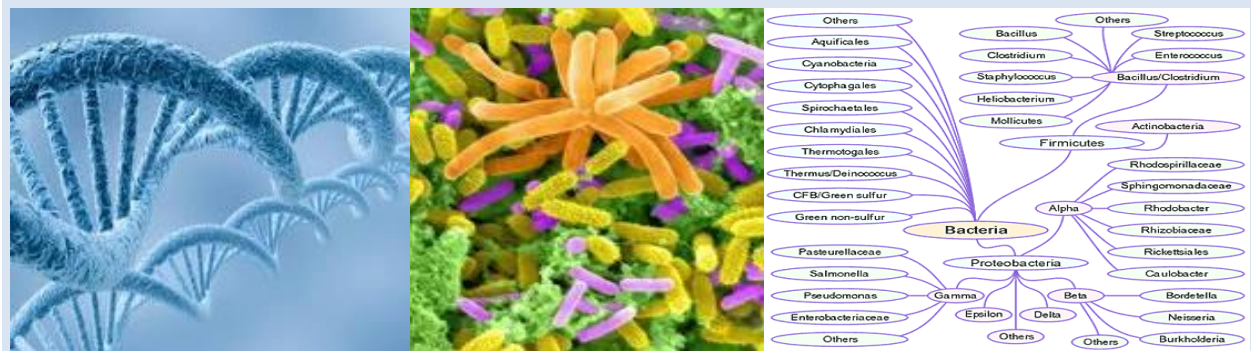




Sensitization Training
**“Bioinformatics and Computational Biology in
 Microbiological Research”**
 January 29 to February 04, 2011
Under
**Establishment of National Agricultural Bioinformatics Grid
 (NABG) in ICAR**



Objectives of the training

- To provide insights to scientists in analyzing & organizing data related to biological complexity
- To provide understanding of bioinformatics tools and software employed for the data analysis
- To strengthen strategies for integrating bioinformatics tools for data mining

About *National Agricultural Bioinformatics Grid (NABG)* project

Formally launched on 18th Sept., 2010 by Hon’ble Director General (ICAR) and Secretary (DARE) Dr. S. Ayyappan, the Establishment of “National Agricultural Bioinformatics Grid (NABG)” in ICAR is a National project funded by NAIP. The project entails the creation and advancement of databases, algorithms, computational and statistical techniques and theory to solve formal and practical problems arising from the management and analysis of biological data. The field of Bioinformatics focuses on developing and applying computationally intensive techniques (e.g., pattern recognition, data mining, machine learning algorithms, and visualization) which gives the opportunity to quickly and efficiently study heap of genomic information, chemical structure and other biological data. Bioinformatics has already started showing its profound impact on agricultural research and development. NABG will help Indian scientists to solve problems and mysteries in uncovering wealth of hidden biological information in different subject domains.

Objectives of NABG

1. Development of agricultural bioinformatics grid for the country.
2. Creation of local databases and Bioinformatics Data Warehouse (BinDW) for genomic resources across species.
3. Human resource development in agricultural bioinformatics.
4. Create and promote inter-disciplinary research groups with focus on agricultural bioinformatics.

NBAIM: From Margin to Mainstream

National Bureau of Agriculturally Important Microorganisms (NBAIM) started its journey from old NBPGR building in 2001 at New Delhi, where it stayed for only a few months. The Bureau then moved to Kushmaur village at Maunath Bhanjan in 2004 where a completely unfinished, marginalized and almost abandoned the-then NIST (National Institute of Sugarcane Technology) building was waiting for it. The Bureau then traveled a long journey within a very short span of only 5-6 years to acquire all the infrastructural facilities, greenery, instrumental sophistication and of-course scientific and technical skill to establish itself as a premier institution of Indian council of Agricultural Research (ICAR).

In a very small span of its journey in the area of research and development, now the Bureau has raised itself from a *margin* of merely a culture collection of agriculturally important microorganisms (AIMs) to the *mainstream* of microbial biotechnology.



Microbial Research at NBAIM

Microbial research at NBAIM basically focus in the areas of *microbial diversity analysis from extreme habitats, biological control of plant diseases, plant growth promotion, plant-microbe interaction, microbial genomics and proteomics, stress tolerance in microbes and bioinformatics.*

The Bureau has a well equipped “*National Agriculturally Important Microbial Culture Collection*” (NAIMCC) established with most modern facilities for culture deposition, conservation and preservation for long- and short term durations. Total microbial accessions in NAIMCC have reached up to 3207 among which species and strains of bacteria, fungi, actinomycetes, methylotrophs and cyanobacteria are successfully conserved.

The Bureau is also having an advanced ‘*Microbial Genome Resource Repository*’ (MGRR) facility for collection and storage of different kinds of genetic materials of agriculturally important microorganisms (AIMs) along with molecular biology, microbiology, microbial genomics and central instrumentation units.

Themes of the sensitization training

1. Sequence analysis
2. Genome annotation and gene prediction
3. Evolutionary computational biology
4. Analysis of gene/protein expression

5. Comparative genomics
6. Soft-wares and tools in bioinformatics
7. Web servers in bioinformatics

Who can attend

Scientists/researchers/faculty members from NARS system and departments working with biological sciences from various universities

How to apply

Scientists working on microbiological research with NARS system/ Universities/SAUs may write to the Director, NBAIM along with their RESUME on or before Jan, 10, 2011. Selected candidates will be informed regarding their participation.

Total number of participants : 25 only

For further details, please contact

Prof. Dilip K. Arora, Director, National Bureau of Agriculturally Important Microorganisms, Kusmaur, P.O. Kaithauli, Mau Nath Bhanjan-275101 (U.P.); Phone: 0547-2530080, Fax: 0547-2530358, e mail: nbaimicar@gmail.com; website: www.nbaim.org

APPLICATION FORM

Research Institute :

Name of the Applicant :

Designation :

Official address :

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Telephone No. :

Mobile. :

E-mail address :

(Compulsory)

Bioinformatics Related Experience :

Expectation from the training :

Signature of Applicant

INSTRUCTIONS TO CANDIDATES

1. The complete application should be emailed to the Director, NBAIM at nbaimicar@gmail.com latest by 10 Jan, 2011.
2. The applications should be submitted through proper channel
3. Training details are also available online at : <http://www.nbaim.org/>
4. Only limited (10-12 participants) provision for TA (as per ICAR/NAIP norms) is available
5. Food & accommodation will be provided by training organizer