# **One Day Seminar on** Capacity Enhancement in Biosafety Evaluation of GM Crops May 11, 2015

#### Patron in Chief:

Dr. S. M. Javed Akhtar, Member Sciences, PAEC

## Advisory Committee:

Dr. Kauser Abdulla Malik HI, SI, TI (National Distinguish Professor, FC Univ. Lahore) Prof. Dr. M. Iqbal Choudhary (Director, ICCBS– HEJ Karachi) Dr. Nayyar Iqbal, Director, A&B, PAEC

## **Organizing Committee:**

Dr. Shahid Mansoor, *SI*, Director, NIBGE Dr. Qaiser M. Khan, DCS, Head EBD Dr. M. Afzal Ghauri, DCS, Head, IBD Dr. Shahid M. Baig, SI, DCS, Head HBD Dr. Zahid Mukhtar, PS, Head, ABD Dr Muhammad Asif, PS, ABD Ms Ameena Mobeen, SS, EBD

An Excellent opportunity for scientists, researchers, students & faculty members from academia and research institutes. Preference will be given to regular employees working on GM crops and biosafety.

# Participants: 50

Registration Fee: 500 /-

Closing date: May 7, 2015

**Note:** Please bring **original CNIC** required for entrance at NIBGE main gate.

# For Correspondence:

Dr. Shahid Mansoor, SI, Director, NIBGE

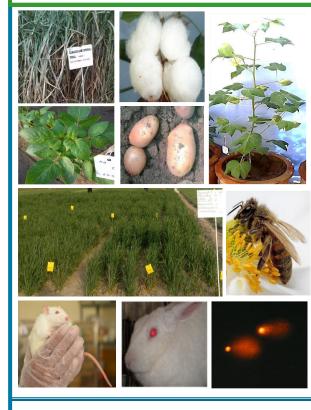
National Institute for Biotechnology and Genetic Engineering (NIBGE), P.O. Box 577, Jhang Road, Faisalabad– PAKISTAN Tel: 092-41-9201471; 092-41-9201316-20 Ext. 234 Fax: 092-41-9201472 Cell: 0300-7944841 email: shahidmansoor7@gmail.com asif.biosafety@gmail.com, amina25@gmail.com



National Institute for Biotechnology and Genetic Engineering, inaugurated in January 1994 is more than Sixteen years old now. During this time, it has established itself as "Center of **Excellence in Biotechnology**" by upgrading its infrastructure and improving the quality of scientific manpower. NIBGE has been alive to all the developments in the field of health, agriculture, industry, environment & has accordingly developed it's research programs. It is an affiliate center of the International Center of Genetic Engineering and Biotechnology (ICGEB), Italy and it's library has been designated as National Library of Biological Sciences. Human resource the cornerstone for development is development in the field of biotechnology. NIB-GE by all means, has emerged as a focal point for all national and international activities related to biotechnology in the country and will continue to contribute to scientific and technological development for the prosperity of the country.







National Institute for Biotechnology and Genetic Engineering (NIBGE), P.O. Box 577, Jhang Road, Faisalabad– PAKISTAN Tel: 092-41-9201316-20, Fax: 092-41-9201472, Web: www.nibge.org

# Introduction to One Day Seminar

Modern biotechnology presents a great potential to solve agricultural problems that is evident with the rapid adoption of genetically modified crops (GMCs) in many countries. Agricultural biotechnology in Pakistan has made a considerable development in the recent years. To address different agricultural problems such as insect pests, diseases, weeds and abiotic stresses, biotech research is going on various crops in different biotech institutes in the country. Using novel transgenes for expression of useful traits, NIBGE has indigenously developed promising transgenic lines of four important crops, including cotton, wheat, sugarcane and potato, which are tolerant to biotic and abiotic stresses. Biosafety evaluation studies of theses GM crops are being conducted to meet the requirements before their commercial release.

Concern for biosafety is an important issue in the development of GMCs. To address these concerns, international biosafety policies and regulations have evolved in parallel with the development of GM crops. According to National Biosafety Guidelines and Pakistan Biosafety Rules 2005, GM crops either developed through local efforts or imported from other countries must be evaluated before their commercial release. Implementation of these biosafety rules ensures the safety of personnel, non-targets and environment from possible risks that may be associated with GM crops. Toxic and allergenic properties are considered as focal aspects in the evaluation of potential health risks of food derived from genetically modified crops. Battery of tests for toxicological assessments of GM crops have been established at Environmental toxicology Lab, NIBGE and successfully conducted biosafety evaluation of transgenic cotton, wheat and sugarcane.

It is imperative to create awareness on biosafety of GM crops among all the stake holders. Keeping in view the importance of this area we are conducting "One day seminar on capacity enhancement in biosafety evaluation of GM crops", which will be very instrumental to enhance the capacity building in biosafety assessment of GM crops.





**Biosafety Evaluation of GM Crops at NIBGE** In vivo Toxicity Assessment



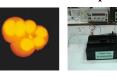
Toxicity in rats, mice, rabbits and Fish (aquatic toxicity)

## **Mutagenecity and Genotoxicity**





Ames: Spot test Microtiter test



Micronuclei Comet assay: undamaged & damaged DNA

## **Evaluation of effects on non-target arthropods**











**Application Form** One Day Seminar on **Capacity Enhancement in Biosafety Evaluation of GM crops** May 11, 2015

Name: Official Position: CNIC No.: Date of Birth: Organization: Address:	
Phone:Cell: E-mail: Highest Academic Qualification: Research/Training experience:	
Particular interest in the training:	
Applicant's Signature	Head of Department Signature /Seal

Note: Please attach one CNIC copy, brief CV and photograph with this form.

#### **Submission of Registration Form:**

Duly signed application forms along with other supporting documents can be sent or emailed to

#### Dr. Shahid Mansoor, SI

#### **Director**, **NIBGE**

P.O. Box 577, Jhang Road, Faisalabad Email: shahidmansoor7@gmail.com

#### **Registration:**

*Registration will be done at registration desk* at NIBGE on 11<sup>th</sup> May, 2015.