

### Organizers:

- ❖ Prof. M. Akhtar FRS (Director General SBS)
- ❖ Prof. A. R. Shakoori (Director SBS)
- ❖ Prof. Javed Iqbal (Director SBS)
- ❖ Prof. M. Waheed Akhtar (Director SBS)
- ❖ Dr. Naeem Rashid (Professor SBS)
- ❖ Mrs. Monika Akhtar (Foreign Visitor)
- ❖ Dr. Sadaf Naz (Associate Professor)
- ❖ Dr. Qamar Bashir (Assistant Professor)
- ❖ Dr. Q.A. Gardner (Assistant Professor)
- ❖ Dr. Deeba Noreen Baig (Experimental Officer)
- ❖ Dr. Saima Iftikhar (Experimental Officer)
- ❖ Dr. Soumble Zulfiqar (Post-doc Fellow)

### Application deadline:

Complete application comprising filled in registration form, short cv and a passport size photograph should reach SBS office by Friday 12<sup>th</sup> April 2013, 12 pm.

### Contact/ Enrollment Address:

Dr. Qamar Bashir  
School of Biological Sciences, University of the  
Punjab, Quaid-e-Azam Campus, Lahore, 54590  
Phone: 0336-7934267  
042-99230960  
Fax: 042-99230980



# Recombinant DNA Technology

First

**National workshop**  
April 22 - April 29, 2013



**School of Biological Sciences**  
**University of the Punjab, Lahore**

**Recombinant DNA Technology:**

Recombinant DNA is made by inserting foreign DNA fragment into a small replicating molecule (such as a bacterial plasmid). The bacterial cells transformed with this recombinant DNA amplify the inserted fragment and make several copies of the insert, which is known as a molecular clone. Genetic engineering has become one of the most powerful tools in modern biology. Recombinant DNA technology has become an essential component of biological, clinical, pharmaceutical, agricultural and industrial research.

The workshop will provide a comprehensive and fundamental training in the essential skills of "Recombinant DNA Technology".

The course has been designed for the beginners who have no previous experience with the techniques involved in Recombinant DNA Technology. The young researchers and faculty members who are presently involved in teaching and research in the departments of Botany, Zoology, Biochemistry, Genetics, Microbiology, Pharmacy and any other allied field in different universities are encouraged to participate in this Introductory Workshop.

The workshop will comprise lectures by the Peers, demonstrations and hands-on cloning and molecular biology experiments.

**Hands-on experiments and demonstrations**

- ❖ Growing bacterial cells
- ❖ Isolation of DNA
- ❖ Polymerase chain reaction
- ❖ Primer designing, optimizing conditions for PCR
- ❖ DNA Ligation
- ❖ Bacterial transformation
- ❖ Plasmid extraction and purification
- ❖ Electrophoresis techniques
- ❖ Computer analysis of sequence data
- ❖ Troubleshooting of common sequencing problems

**Venue:**

School of Biological Sciences, Building 2, University of the Punjab, Quaid-e-Azam Campus, Lahore-54590.

**Duration:**

Monday 22<sup>nd</sup> April to Monday 29<sup>th</sup> April 2013; 8:30 am to 4.30pm daily.

**Registration:**

The interested candidates are required to forward their nominations through their Vice-Chancellors along with a

- a) Registration form duly filled in
- b) A short CV
- c) A passport size photograph

**The workshop is limited to 15 participants only.**

After receiving intimation of successful selection from SBS, a bank draft of Rs.2,000/- in favour of Director General SBS as registration fee for the workshop will be required.

The participants will be provided accommodation, three meals a day, farewell dinner and reading material including protocols. The cost of these facilities is heavily subsidized by a grant from HEC.

**Registration Form:**

Title: .....

First Name: .....

Last Name: .....

Affiliation: .....

Position: .....

Mailing Address: .....

E-mail: .....

Phone: .....

Fax: .....