

Wednesday Dec 21, 2011

- 0900-1000Hrs Lecture on DNA Finger Printing / PCR
(Dr Zia-ur-Rehman)
- 1000-1100Hrs Practicals PCR
(Dr Zia-ur-Rehman)
- 1100-1130Hrs Tea Break
- 1130-1230Hrs Gene Expression (Lecture)
(Dr Ahmad Usman Zafar)
- 1230-1345Hrs Practicals Gene Expression Techniques
(Dr Ahmad Ali Shahid/Dr Abdul Qayyum)
- 1345-1445Hrs Lunch Break
- 1445-1700Hrs Practicals Gene Expression
Techniques Cont

Thursday Dec 22, 2011

- 0900-1000Hrs GMO Technology (Lecture)
(Dr Ahmad Ali Shahid)
- 1000-1100Hrs Lab Practicals GMO's
(Dr Ahmad Ali Shahid, Ms Saira
Azam/Mr Tahir Rehman Samiullah)
- 1100-1130Hrs Tea Break
- 1130-1345Hrs Lab Practicals GMO's Cont.
- 1345-1445Hrs Lunch Break
- 1130-1345Hrs Lab Practicals GMO's Cont.

Friday Dec 23, 2011

- 0900-1000Hrs Bioinformatics lecture (Dr Shaukat
Iqbal Malik MA Jinnah Univ
Islamabad)
- 1000-1100Hrs Bioinformatics Demonstration
- 1100-1130Hrs Tea Break
- 1130-1230Hrs Visit to CEMB Lab
- 1230-1500Hrs Lunch/Juma Prayer
- 1500-1600Hrs Concluding Session



Contributors

- Centre of Excellence in Molecular Biology
- University of the Punjab Lahore
- Higher Education Commission, Pakistan
- Punjab Agriculture Research Board, Pakistan

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Training Course

on

“Advances in Applications of Molecular Biology”

December 19 – 23, 2011



*Centre of Excellence in Molecular
Biology, University of the Punjab,
Lahore, 87-West Canal Bank Road,
Thokar Niaz Baig, Lahore.*

Introduction

Biology has been harnessed since antiquity to fulfill humanity's most fundamental needs from increasing food supplies to improving health care. For the first time in the history of mankind, it seems within reach of human endeavors to tailor make plants bacterial or even animals. Expressions of animal genes in bacteria have enable production of wonder drugs. The vast panorama of applications of molecular biology in agriculture and health is just unfolding. Clearly, the challenge of applying innovative biological approaches to our unique and specific problems will require the talents of soundly trained manpower who can define their own problems and devise strategies workable in the local system and environment. Further, research in the new technologies is vitally dependent on regular and reliable provision of specialized materials and services which from the heart of the new science.

The Centre of Excellence in Molecular Biology University of the Punjab Lahore has taken initiative to promote the biotechnology in the country. It is proposed to organize one week course to provide theoretical background and hands-on experience in Biotechnology. This course will comprise of lectures and laboratory sessions. The course is divided into two parts: Part I will cover Lectures and Part II will cover wet-lab aspects of Biotechnology e.g. Gene cloning, Transformation Technology, Nucleic acids extraction, Agarose gel Electrophoresis, PCR, Dot blot, Southern blot Hybridization, ELISA, Western blot etc.

The course will equip participants with wet and dry laboratory techniques with regard to biotechnology, so they can design experiments in own field of research.

Venue

The workshop will be convened on the campus of Centre of Excellence in Molecular Biology, University of The Punjab, 87-West Canal Bank Road, Thokar Niaz Biag, Lahore

Programme

Monday Dec 19, 2011

Opening Session

0900-1100Hrs	Registration
1100-1105Hrs	Recitation from the Holy Quran
1105-1115Hrs	Introduction workshop (Acting Director)
1115-1130Hrs	Remarks by the Vice Chancellor University of the Punjab
1130-1135Hrs	Vote of Thanks (Dr. Bushra Rashid)
1135-1215Hrs	Tea Break
1215-1300Hrs	Advancement in Molecular Biology (Dr. Tayyab Husnain)
1300-1345Hrs	Lab safety lecture (Dr. M. Idrees Khan)
1345-1445Hrs	Lunch break
1445-1700Hrs	Transformation Technology (Dr. Abdul Qayyum)

Tuesday Dec 20, 2011

0900-1000Hrs	Lecture on Gene Cloning (Dr. Bushra Rashid)
1000-1100Hrs	Practicals Gene Cloning (Dr Abdul Qayyum/Ms Sameera Sattar)
1100-1130Hrs	Tea Break
1130-1345Hrs	Nucleic Acid Extraction Practical (Dr Bushra Rashid/ Ms Fatima Batool/Ms. Saira Azam)
1345-1445Hrs	Lunch Break
1445-1700Hrs	Nucleic Acid Extraction Practical Extraction Cont