### **INTRODUCTION**

The Nuclear Institute for Agriculture and Biology (NIAB), an establishment of Pakistan Atomic Energy Commission (PAEC), is primarily a research institute involved in goal oriented biological and agricultural research. NIAB is well equipped and has a qualified staff of 73 scientists, 45 of them are holding Ph.D. degrees in various disciplines of science. NIAB also maintains a close liaison with other establishments of PAEC and various institutions involved in R & D activities at home and abroad.

Utilizing the expertise and the facilities available at the Institute, the Vaccine Development Group is going to conduct a training course on laboratory diagnosis of infectious diseases in which students, researchers and teachers can participate and learn various techniques and methodologies for identification of pathogens.

The Three days course has been designed to acquaint the participants with theoretical and practical aspects of both conventional and advanced techniques used for diagnosis of infectious diseases. It also comprises lectures in specialised subjects of designing the diagnostic assays and good laboratory practices. Successful completion of the course would enhance your skills and practical insight at your work place.

### **COURSE DESCRIPTION**

#### Scope:

- Principle and Applications of Polymerase Chain Reaction (PCR) for field diagnosis / detection of DNA
- Principle and Applications of Real Time, Polymerase Chain Reaction (qPCR) for detection of viral RNA
- Principle and Applications of ELISA for Identification of serum antibodies

# **Hands-on Training:**

- Detection of Lumpy Skin Disease Virus (LSDV), Peste-des-Petits Ruminants Virus (PPRV), Foot and Mouth Disease virus (FMDV) via PCR / RT-PCR.
- Detection of antibodies against Avian Influenza virus / Peste-des-Petits Ruminants Virus (PPRV) by competitive ELISA.



#### **SCHEDULE**

#### Time and Venue:

02<sup>nd</sup> – 04<sup>th</sup> December, 2025 Vaccine Development Group, Animal Sciences Division, NIAB, Faisalabad

# Receipt of Applications:

Duly filled application form along with copy of CNIC and two passport size photographs must reach the organizer by 25th November, 2025. Application forms can be downloaded from NIAB website (www.niab.org.pk). Advance copy of application can be sent by email on address: msalahuddin786@hotmail.com
Only the selected applicants will be allowed to attend the training. Selection will be conveyed through email or post.

### Registration Fee:

Students: Rs. 3000/-

Researchers / Officials: Rs. 4000/-

(Candidates are advised to deposit registration fee, after

selection)

### Award of certificates:

Certificates will be awarded to the participants on completion of the course.

#### TRAVEL AND ACCOMMODATION

The nominating institutions or participants themselves shall bear the cost of travel and stay at Faisalabad. However, NIAB will help to secure moderate priced accommodation for the participants, if requested well in advance.

### PATRON-IN-CHIEF:

**Dr. Raja Ali Raza Anwar,** Chairman PAEC (Sitara-e-Imtiaz, Hilal-e-Imtiaz, Pride of Performance)

#### **PATRON:**

**Dr. Shakeel Abbas Rofi**, Member (*Science*)

#### ADVISORY COMMOTTEE:

**Dr. Yousuf Saleem**, DG (Agri. & Biotech.)

**Dr. Iftikhar Ali**, Advisor to Member

**Dr. Uzma Maqbool,** DCS/ Director, NIAB

**Dr. Muhammad Akhtar,** DCS/ Officiating Director

Dr. Rehana Kausar, PS/ Head ASD, NIAB

#### **ORGANIZING COMMITTEE:**

Dr. Muhammad Salah-ud-Din Shah

Principal Scientist/Course Organizer

Dr. Mudasser Habib

Principal Scientist/ Co- Organizer

#### **FACULTY:**

#### Prof. Dr. Moazur Rahman

(Director CEMB, PU, Lahore)

Dr. Imran Amin

(Principal Scientist, NIBGE)

Dr. Arfan Ahmad

(Professor, UVAS, Lahore)

Dr. Hamid Irshad

(Principal Scientific Officer, NARC, Islamabad)

Dr. Rai Shafqat

(Disease Investivaton nad Control officer, L&DD, Faisalabad)

Hafiz Muhammad Muzammil

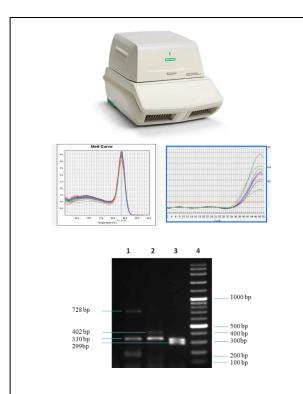
(Research Associate, NIAB)

Mr. Muhammad Mahran Hafeez

(Tech I. NIAB)

Mr. Asad Javed

(Senior Scientific Assistant, NIAB)



### **ENQUIRIES:**

Further information regarding the course is available from the organizer:

### Dr. M. Salah ud Din Shah

Principal Scientist/ Course Organizer

Nuclear Institute for Agriculture and Biology (NIAB), P. O. Box No. 128, Jhang Road, Faisalabad, PAKISTAN.

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E-mail: msalahuddin786@hotmail.com

Web: <a href="http://www.niab.org.pk">http://www.niab.org.pk</a>



# **Training Course**

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"Diagnosis of Viral Diseases"

02 - 04 December, 2025



Vaccine Development Group
Animal Sciences Division
NUCLEAR INSTITUTE FOR AGRICULTURE AND
BIOLOGY (NIAB), FAISALABAD
(PAKISTAN ATOMIC ENERGY COMMISSION)