

Activities of Diagnostic Virology Lab. of ERDDL, Kolkata

The activity of Diagnostic Virology Lab. is concerned with the diagnosis of important diseases of livestock and wild animals. With the help of standard virological techniques supported by molecular biological assay with high precision, this laboratory responds quickly to identify the causative viral agent responsible for disease occurrence inside the state and other states and union territory of Eastern Region. This unit is also meant for providing valuable suggestion to the concerned authority for control and containment of the prevailing diseases. In the year 2014 a real time platform has been acquired by the lab. for detection of BOHV-I DNA in frozen semen samples and every batch of frozen semen straws in duplicate from BoHV-I sero positive bulls are being tested in the lab by qPCR technique since then. The Avian Influenza Laboratory has been functioning effectively by screening of routine sera samples by competitive ELISA for detection of Influenza Type „A“ viral antibody and Haemagglutination Inhibition test for detection of Influenza virus Subtype specific antibody in the BSL-II Lab.. Routine screening of swab / tissue samples for Avian Influenza Virus in Embryonated Chicken Eggs (ECE) followed by rRT PCR technique is being carried out purposefully in the prefabricated BSL-III lab. The following are the major activities performed in this section:

- A) Identification of different viral agents for diseases of livestock by Polymerase Chain Reaction and Reverse transcriptase polymerase chain reaction technique.
- B) Testing of frozen semen straws for detection of BOHV-I viral DNA by qPCR.
- C) Testing of Morbid AI samples by embryonated egg inoculation technique, followed by rRT PCR technique
- D) Screening of routine sera samples by competitive ELISA for detection of Influenza Type „A“ viral antibody and Haemagglutination Inhibition test for detection of Influenza virus Subtype specific antibody in the BSL-II Lab.
- E) Sero monitoring work by Competition ELISA test for post vaccination PPR serum samples to evaluate the efficacy of the vaccination procedure
- F) Detection of PPR viral antigen in clinical samples from the field by double antibody sandwich ELISA test/ detection of viral RNA by RT PCR technique..