



# 46<sup>th</sup> Annual Conference of Indian Association of Medical Microbiologists



 **Atal Bihari Vajpayee Scientific Convention Center, Lucknow**

## Pre Conference Hands on Workshop

### Scanning Electron Microscopy: Traditional and new applications in medical Microbiology

**Objectives of the workshop:** At the end of the workshop, participants will be able to understand and perform with assistance the techniques related with SEM such as sample preparation and taking images correctly and their interpretation.

**Current relevance of the topic:** Scanning Electron Microscopy is an excellent tool for investigating ultrastructure of microorganisms. It is mainly used for research purposes like understanding the infectious cycle or pathogenesis but is also used for diagnosis of causative agents of infectious diseases, especially in situations when a novel or emerging pathogen is being investigated.

Additionally, as per the new PG curriculum developed by the NMC, India, Microbiology PG students should be familiarized with advanced technologies like Electron Microscopy.

**Who is the target population?** MD Microbiology Post graduate students, research scholars and faculty of medical colleges

**Short description of expertise of key resource persons:** Dr Manoj Jain is a Professor in the Department of Pathology at Sanjay Gandhi Post Graduate Institute of Medical Sciences and is Faculty In-charge of Electron Microscopy. Dr Atin Singhai is a Professor in the Department of Pathology at K.G.M.U. Lucknow Sciences and is Faculty In-charge of Electron Microscopy. Both have several years' hands on experience in Electron Microscopy.

## Detailed Agenda

Topic	Speaker	Duration
Introduction of participants and pre-workshop evaluation		8:00 AM to 9:00 AM
Introduction to Scanning Electron Microscopy	Prof Manoj Jain	9:00AM to 9:45 AM
Applications of Electron Microscopy in medical Microbiology	Prof Parul Jain	9:45AM to 10:30 AM
Overview of methods for concentrating microbial suspensions for SEM observations	Prof Atin Singhai	10:30AM to 11:15 AM
Tea Break		11:15AM to 11:45 AM
<b>Demonstration and hands on activity on sample preparation for SEM</b>		11:45 AM to 1:45PM
Lunch		1:45PM to 2:45 PM
<b>Demonstration of image taking with SEM and image analysis</b>		2:45 to 4:00 PM
Tea/ Coffee break		4:00 PM to 4:10PM
Post-workshop evaluation		4:10 PM to 4:20PM
Valedictory function and certificate distribution		4:20 PM to 5:00PM

### Workshop Coordinator

**Dr Parul Jain**

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