

Webinar: Confocal Microscopy Advances in Confocal Microscopy and its applications in cell biology

Date: 24 September 2021 ~ Time: 03:00pm - 04:00pm IST

Confocal microscopy provides the ability to collect clear images from a thin section of a thick sample with low background and minimal out-of-focus interference. Confocal microscopy is broadly used to resolve the detailed structure of specific objects within the cell. The Confocal Microscope is used in a wide range of fields including Biomedical sciences, Cell Biology, genetics, Microbiology, Developmental Biology, Spectroscopy, Nanoscience (nano imaging) and Quantum Optics.

The Webinar on "Advances in Confocal Microscopy and its applications in cell biology" was organized by Central Sophisticated Instrumentation facility (CSIF) in association with DSS ImageTech Pvt Ltd., University of Calicut. The webinar was conducted to provide a brief idea about the fundamentals of the instrument and the technology.

UNIVERSITY OF CALICUT
CENTRAL SOPHISTICATED
INSTRUMENTATION FACILITY (CSIF)
WEBINAR
CONFOCAL MICROSCOPY
"Advances in Confocal Microscopy
and its applications in cell biology"
Date: 24-09-2021 ~ Time: 03.00pm

HIGHLIGHTS

- » Fundamentals of the Confocal Principle
- » Microscope instrumentation
- » Principles of taking Confocal images
- » Applications on various cell biological problems
- » Q & A

RESOURCE PERSON

- » Dr. J. Sebastian Raja
Application Specialist
DSS ImageTech Pvt Ltd.

REGISTRATION

Link: <https://forms.gle/c1PYIUusp7EANbMeA>

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The participants were introduced to the Fundamentals of the Confocal Principle. The presentation could provide an insight in to the microscope instrumentation and principles of taking confocal images. Also discussed about the application of confocal microscopy on various cell biological problems. 32 participants from various universities/ research institutes participated in the webinar.

Webinar Speaker:

- Dr. J. Sebastian Raja
Application Specialist, DSS ImageTech Pvt Ltd.

The screenshot shows a Zoom webinar interface. On the left, a slide titled "Fundamentals of Confocal microscopy and its Applications in Cell Biology" is displayed, featuring two confocal images of cells and the text "24.09.2021 University of Calicut, Kerala Central Sophisticated Instrumentation Facility (CSIF) Dr J Sebastian Raja Application Manager Micro Imaging Division Bangalore". On the right, a slide titled "Basic Idea of the Fluorescence Microscope" is shown, containing a diagram of the light path and energy levels. The diagram illustrates the process: Light Source → Excitation filter → Sample → Emission filter → Detector. It also shows energy levels: Ground State, Excited State, and the transitions of absorption and fluorescence. A participant list on the far right includes names like Joss t Puthan, Sebastian Raja, sharmila shaju, Shibu Balan, Lije Maryomana, T M Manoj Kumar, jeyaraj s, and RINU V THOMAS.