

From Molecules to Mechanisms:
**SUPER-RESOLUTION IMAGING
WITH THE OXFORD NANOIMAGER
SEMINAR**

iMAGE News

The Imaging Centre, Faculty of Pharmacy, Universiti Teknologi MARA, in collaboration with Aceptec Laboratory and Process Equipment Sdn. Bhd., hosted a knowledge-sharing seminar entitled From Molecules to Mechanisms: Super-Resolution Imaging with the Oxford Nanoimager on 7 August 2025 at the Gallery, Level 5, Faculty of Pharmacy, UiTM Puncak Alam Campus.

By: Mdm. Norhayati Mohd Monzai, Mdm. Wan Nurul Ezzati Farhani Ishak and Dr. Zolkapli Eshak

The seminar was delivered by Mr. Wong Shek Ting, Global Distribution Manager of Oxford Nanoimager, who introduced participants to the Oxford Nanoimager (ONI), a benchtop super-resolution imaging platform. His presentation emphasised the compact design of the system, which combines advanced imaging capabilities with its user-friendly software, making it accessible for use in diverse laboratory settings. He also outlined the instrument's ability to support multiple techniques, including direct stochastic optical reconstruction microscopy (dSTORM), photoactivatable localization microscopy (PALM), and total internal reflection fluorescence microscopy (TIRF), which extend the possibilities of imaging beyond the diffraction limits of conventional microscopy.

Mr. Wong highlighted the scientific applications of the ONI across multiple disciplines, particularly cell biology, neuroscience, and virology. He shared how the instrument has been employed internationally to study protein clustering, organelle dynamics, and virus-host interactions at the nanometer scale. These examples demonstrated the instrument's role in offering a greater understanding of biological processes and its potential contribution to advancing biomedical research.

The event attracted seventeen participants from various faculties of UiTM and from Andalas University, Indonesia. It concluded with an interactive discussion in which attendees raised questions on technical specifications, research applications, and the potential integration of super-resolution imaging into their respective fields.



By organising this seminar, the Imaging Centre reaffirmed its commitment to fostering engagement with emerging technologies. Although the ONI is not currently available within the faculty, the session provided valuable exposure to its potential capabilities and applications, preparing researchers and students to align with current developments in scientific methodologies.

