

13th December 2023, 4pm

MIC Tea Time Optical assessment of tissue and biofluid mechanics

Online event Register at mic@meduniwien.ac.at

www.cluster.meduniwien.ac.at/mic



Kareem Elsayad
Center for Cell Biology and
Anatomy, Division of Anatomy,
Medical University of Vienna

Kareem Elsayad received his Masters and PhD in condensed matter physics in the UK and USA respectively. He went on to head the Advanced Microscopy Facility at the Vienna Biocenter before moving to the Medical University of Vienna to set up the Laboratory for High-resolution optical Microspectroscopy Applications at the Division of Anatomy, Center for Cell Biology and Anatomy.

His interests are centered on developing and applying novel optical techniques for understanding the physical properties of biological systems and looking into how these can be translated into medical applications.

He will begin his talk by discussing the importance of understanding the physical properties in medicine and medical research, followed by an overview of some optical techniques routinely used for. Next, he will discuss some recent advances in optical spectroscopy that allow one to probe the viscous and elastic properties of tissue and biofluids across different scales. Finally, he will show how these can help us better understand diverse physiological and pathological processes and lead to novel prognostic and diagnostic tools.