



# BPS2023

67th Biophysical Society Annual Meeting  
February 18–22, 2023



**Sunday, February 19**

**2:30 PM – 4:00 PM**

**Room 10**

**Oxford Instruments**

## **Multi-Modal Microscopy: Challenges and Workflows For Correlative Microscopy Acquisition and Analysis**

Correlative microscopy data is beautiful and incredibly complex, particularly when dealing with data acquired at significantly different magnification scales, 3D data, data acquired using analytical techniques or dynamic data that has been acquired at multiple time points with more than one type of imaging technique. Combining multiple microscopy techniques can have more than one purpose, enabling researchers to better target regions of interest and optimize microscope and researcher time, and also to enable a deeper insight into the structural and functional properties of your sample.

### *Where do you begin with multi-modal microscopy?*

This interactive workshop will take you through some of the considerations for biological microscopists when approaching correlative microscopy, including sample preparation, how to find your regions of interest, and how to determine the sequence of microscopy techniques. We will also provide case studies using a range of techniques for correlative microscopy research on biological samples, including analytical techniques that go beyond structural imaging; Raman spectroscopy, atomic force microscopy (AFM), electron microscopy, and energy dispersive x-ray spectrometry (EDS).

### *How do you analyze the data?*

Collecting the data is only the start, a significant proportion of research time is spent on data collation and interpretation. The final part of this workshop will discuss techniques to process correlative data and optimize your analysis, taking you beyond image overlays through to producing quantitative, analytical results.

### **Speaker**

*Louise Hughes, Business Manager, Oxford Instruments*