

# SEMINÁRIOS IQ



## Mass spectrometry imaging of drugs, metabolites and natural products

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Mass spectrometry imaging (MSI) relies on the recording of mass spectra in every point on the surface of a sample, from which images can be generated of every detected compound. The images are extremely specific and information rich thanks to the use of mass spectrometry. No prior labeling by fluorescence or radioactivity is needed; drugs and metabolites are easily distinguished and can be imaged relative to endogenous compounds, e.g. lipids, which may serve as biomarkers of different tissue types for histological classification.

The presentation will provide an introduction to MSI by DESI and MALDI along with examples from the work of our group, and the possibilities for quantitative MSI will be discussed.

A study of the inflammatory response to brain ischemia demonstrates the use of biomarkers for diagnostic purposes [3]. Whole-body imaging of drugs and metabolites is presented in locusts and mice, and the use of MSI in drug delivery is shown in imaging of skin and rat intestine. Finally, some examples will be shown of MSI in plant science, a field with an unparalleled number of metabolites and an increasing use of MSI.

**30 de junho de 2017**  
**Anfiteatro do IQ-I**  
**10:30 h**