

**TWO-DAY COURSE, Saturday and Sunday**  
**05 High Resolution Mass Spectrometry for Qualitative and Quantitative Analysis: An Introduction**

**Instructors**



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This introductory course is designed to teach participants the utility, advantages, and limitations of conducting LC-MSn analysis using high resolution mass spectrometry. The fundamental concepts of high resolution and accurate mass measurement will be developed, as will techniques for mass measurement and mass calibration. Current high resolution instrument options including time-of-flight (TOF) and Fourier transform mass spectrometry (FTMS) will be described and compared. Mass analyzer options will be extended into MS/MS platforms including hybrid instruments such as Q-TOF and LTQ-FTMS. Qualitative and quantitative applications of high resolution mass spectrometry will be discussed, especially for small-molecule pharmaceutical compounds, biologics (antibody drug conjugates, peptides, and proteins) and biomarkers. These applications will include molecular formula and structure analyses such as identification of metabolites, as well as effects of high resolution on sensitivity and specificity in quantitation.