

What Counts as Significant? Lessons from Applied Proteomics

Proteomics experiments generate increasingly rich datasets, but converting statistical output into biological insight remains a surprisingly challenging step in practice. Using examples from recent collaborative projects and the newly established Mass Spectrometry Facility within the IN-MOL-CELL infrastructure at IIMCB, Vanessa Linke will discuss selected challenges in the analysis and interpretation of affinity purification mass spectrometry (AP-MS) data, including significance testing, missing value handling, and the relationship between statistical evidence and biological relevance. Through a series of real-world examples, the seminar will explore how different analytical decisions can influence downstream biological interpretation and aim to stimulate discussion on how best to extract meaningful biological insights from complex datasets.