

Yet-Ran Chen

Proteomics Approaches for Probing Cellular Mechanisms

Brief Intro.

This lecture will provide a conceptional introduction to the importance, challenges, and fundamentals technologies of proteomics studies. We will cover the most commonly used high-throughput strategies to trace the dynamics of protein regulation and interaction. How the proteomics analysis results should be handled and interpreted will also be discussed in this lecture.

Lecture Outline

Significance of Physiological Regulation in Proteome Level

Complexity and Dynamics of the Proteome

Mass Spectrometry-Based Approaches on the Profiling of Complex Proteome

Identification of Post Translational Modification of Proteome

Current Quantitative Proteomics Approaches

Assessment and Interpretation of Proteomics Analysis Result

Tracking the Dynamics of the Proteome Regulation