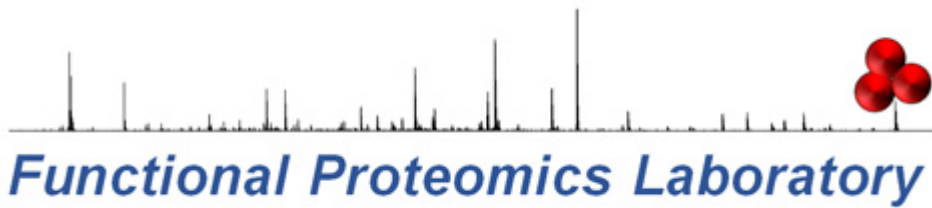


Research



Functional Proteomics Laboratory at IMCB is a high profile group with unique portfolio. It gathers broad expertise from diverse fields including biochemistry, immunology, cell biology and mass spectrometry. Laboratory long-term research interest is focused on the integration of the cell biology, immunology with quantitative mass spectrometry-based proteomics. It includes Multi-Omics approaches in precision medicine for personalized therapies, antigen identification pipelines development, body fluid biomarker discovery, clinical proteomics and drug target deconvolution.

Laboratory expertise includes, but it is not limited to:

- biomarker discovery (membrane proteome analysis, secretome analysis, etc.)
- large scale protein identification experiments (ligand identification)
- quantitative proteomics (SILAC, TMT, iTRAQ, di-Methyl)
- quantitative identification of interacting proteins
(protein complexes analysis)
- post-translational modification analysis (phosphorylation, ubiquitylation, acetylation)
- signaling networks analysis
- DNA-, RNA- protein interactions
- lipids-protein interactions
- MS based thermal shift assay
- recombinant proteins/antibodies quality check
- non-tryptic peptides analysis and identification
- Targeted proteomics PRMs (parallel reaction monitoring)

Figure 1. Broad application of mass spectrometry in biomedical sciences

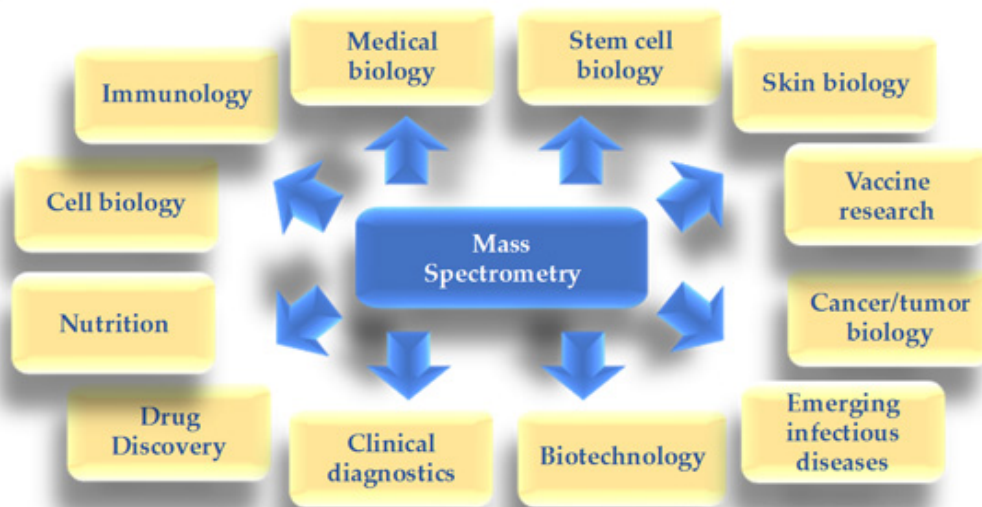
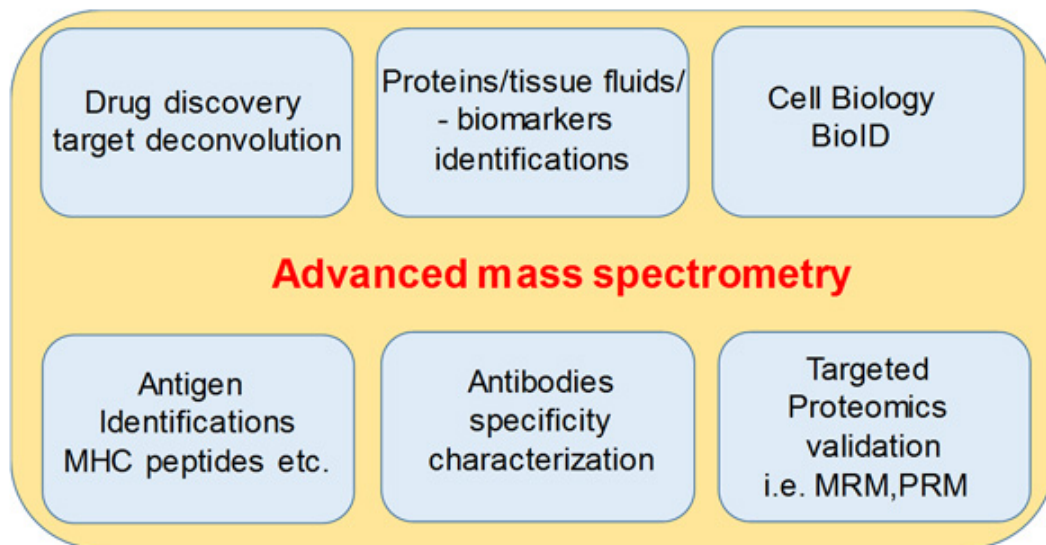


Figure 2. Team unique expertise



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