Capstone — End-to-End Proteomics & Interactomics Project — Hands-on

Bring together your proteomics and interactomics concepts in a guided capstone project. This module focuses on project scoping, experimental design planning, data processing and QC outlines, biological interpretation concepts and how to organise figures, tables and a short narrative suitable for a mini report or presentation.

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Session Index

Session 1

Fee: Rs 8800 Apply Now

Project Scoping & Experimental Design

Selecting a capstone topic and framing the biological question

hypothesis vs discovery style ideas | **defining outcomes and comparisons** | **scope and feasibility thinking**

Conceptual experimental design for proteomics and interactomics

sample types and groups overview | replicates and batch layout ideas | choice of DDA / DIA / targeted concept

Planning controls, QC samples and basic power awareness

blanks and QC concept | technical vs biological variance ideas | simple effect size thinking

Session 2

Fee: Rs 11800 Apply Now

Data Processing, QC & Quantitative Outline

Conceptual pipeline from raw data to protein tables

peak picking and identification ideas | FDR and filtering concept | building peptide and protein matrices

QC and normalisation at planning level for the capstone

run level QC plots idea | missing value awareness normalisation and batch concepts

Outline for differential abundance and basic statistics steps

group comparison thinking | multiple testing awareness | volcano and heatmap summary ideas

Session 3

Fee: Rs 14800 Apply Now

Interpretation, Networks & Multi-Omics Context

Biological interpretation of capstone protein lists (concepts)

pathway and GO enrichment ideas | PTM and subtype considerations | linking to phenotypes and outcomes

Interactome and network thinking for the capstone project

PPI and module overview | hubs and key complexes

concepts network figures for reporting

Situating proteomics results in multi-omics and clinical context

overlay with transcript or clinical markers agreement and discordance ideas prioritising follow up hypotheses

Session 4

Fee: Rs 18800 Apply Now

Final Capstone Deliverables & Presentation Plan

Structuring the capstone report or mini manuscript outline

Theory + Practical (planning oriented)

Planning figures, tables and summary dashboards for the project

key plots for QC and quantitation pathway and network figure concepts checklist for reproducible reporting

Capstone deliverables and next steps planning (concept focused)

summary slide deck outline short abstract or project summary text ideas for extension to real data or thesis work