

## Immunoproteomics and Antibody Profiling — Hands-on

Build a conceptual understanding of immunoproteomics and antibody profiling. This module focuses on antigen–antibody interactions, serological assay thinking, immunocapture LC–MS ideas, and how antibody and antigen profiles can be interpreted as immune response signatures and biomarker candidates.

# Immunoproteomics and Antibody Profiling

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Session 1 — Immunology & Antibody Basics for Proteomics | Session 2 — Serological Assays & Immunocapture Concepts | Session 3 — Antibody Profiling, Specificity & Repertoire Ideas | Session 4 — Mini Capstone: Immunoproteomics Study Design

### Session 1

**Fee: Rs 8800** [Apply Now](#)

## Immunology & Antibody Basics for Proteomics

Core immunology concepts relevant to proteomics studies

**innate vs adaptive ideas** | **B cells, T cells and antibodies** | **antigen presentation (high level)**

Antibody structure, classes and effector function concepts

**Fab and Fc regions idea** | **IgG / IgM / IgA overview** | **isotype and subclass thinking**

Antigen–antibody binding and epitope concepts (overview)

**affinity and avidity ideas** | **linear vs conformational**

**epitopes** **specificity vs cross reactivity awareness**

### **Session 2**

**Fee: Rs 11800** Apply Now

## **Serological Assays & Immunocapture Concepts**

Serological assay families at conceptual level

**ELISA ideas** **lateral flow concept** **titer and cut off thinking**

Immunocapture and immunoenrichment for LC–MS (overview only)

**antibody as capture reagent idea** **pulling down antigens from complex matrices** **concept of improved selectivity & sensitivity**

Controls, specificity checks and matrix effects (concepts)

**blank and negative controls** **spike recovery idea** **cross reactivity awareness**

### **Session 3**

**Fee: Rs 14800** Apply Now

## **Antibody Profiling, Specificity & Repertoire Ideas**

Concepts of antibody profiling and immune signatures

**antigen array and panel ideas** **patterns across patient groups** **autoantibody signature concepts**

Specificity, cross reactivity and background binding (high level)

**epitope overlap ideas** **off target binding awareness** **blocking and competition concepts**

Overview of repertoire level and clonality thinking (conceptual)

**diversity and clonal expansion ideas** **linking repertoire to antigen exposure (high level)**

**integration with omics and clinical data (concepts)**

**Session 4**

**Fee: Rs 18800** Apply Now

## Mini Capstone: Immunoproteomics Study Design

Conceptual design of a simple immunoproteomics project

**Theory + Practical (planning oriented)**

From clinical or biological question to assay and panel layout  
(idea level)

**cohort and sample type thinking** **choice of antigens /**  
**antibodies at concept level** **readout and basic**  
**analysis plan**

Mini capstone deliverables (design and narrative focused)

**study design sheet outline** **simple antibody/antigen**  
**panel table** **short narrative linking profiles to**  
**hypotheses**