

Intern Ready Track (40 hours):

Good Documentation Practices and Quantitative Laboratory Skills

- Introduction to SOP'S; Interpretations, Compliance
- Lab Recording; Lab Notebook techniques (Industry vs Research Labs), Data Collation (Integrity)
- Laboratory Mathematics; Data Analysis, Data Presentation
- Safety Hazard Assessment; Environment Health & Safety, Sample Handling, SDS & Labeling

Foundational Science and Basic Laboratory Methods

- Laboratory Sterile Techniques
- Solution Preparations; Concentrations, Dilutions
- Micro pipetting; Small Volumes, Pipetting techniques
- UV-Vis Spectrophotometry; Introduction to Controls and Standards
- Basic Understanding of Pathophysiology, Immunology & Genetics

Aseptic Technique

- Biosafety Cabinet; Lab Safety
- Cell Metabolism
- Cell Culture Maintenance

Nucleic Acid Purification

- PCR; Quantitative, Endpoint
- Primer Design
- DNA Extraction
- Gel Electrophoresis
- Spectrophotometry; Nanodrop
- Proteins; Structure, Function & Role in Homeostasis
- Genes; Structure, Function & Role in Homeostasis, Mutations

- Therapeutics; Gene therapy, Immune Therapy, Biologics (Vaccines, Monoclonal Antibodies, Immunomodulators, Enzymes, Proteins

Workplace Competency; Communications and Presentation Skills, Poster Presentation (10 hours)