Lipid Annotation, Nomenclature & Database Search (LIPID MAPS) — Hands-on

Make your lipidomics results unambiguous and publication ready. This module focuses on lipid nomenclature standards, ID systems, and practical use of LIPID MAPS and related libraries so that you can annotate LC–MS lipid features consistently, manage isomer ambiguity, and export clean tables for manuscripts and downstream analysis.

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Session 1
Fee: Rs 8800 Apply Now
Lipid Nomenclature & Reporting Standards

Lipid naming basics and why consistent nomenclature matters

class / subclass names total carbon:double bond notation species vs molecular species labels

Community guidelines and reporting recommendations (concepts)

minimum information style ideas annotation levels

and confidence | handling ambiguous assignments

Translating instrument output into human readable lipid names

vendor software naming quirks | simplifying but not overclaiming | consistent naming across projects

Session 2
Fee: Rs 11800 Apply Now

LIPID MAPS & Lipid Databases Overview

LIPID MAPS classification system and IDs (concepts)

main categories and subclasses | LMSD / LM IDs idea linking IDs to names and structures

Other reference libraries and vendor databases (overview)

in house spectral libraries concept | public MS/MS collections (high level) | matching strategy thinking

Searching by exact mass, formula or name (conceptual workflows)

tolerance and adduct considerations | filtering by class and organism | exporting hit lists for annotation

Session 3
Fee: Rs 14800 Apply Now

Practical Lipid Annotation Workflows

From feature list to candidate lipids using library matching (concepts)

accurate mass and RT windows | MS/MS pattern quality ideas | adduct and isotope checks

Managing isomer and isobaric ambiguity in annotations

using generic vs detailed names | flags and notes for

uncertainty aligning with study goals

Building a curated lipid annotation table for analysis

columns: name, ID, class, formula confidence level and evidence tags versioning and traceability concepts

Session 4
Fee: Rs 18800 Apply Now

Mini Capstone: Lipid Annotation & Reporting Package

Assembling a clean lipid annotation table for a toy dataset

Theory + Practical

Checking names, IDs and confidence levels for consistency

spotting mismatches and duplicates clarity for readers and collaborators ready for deposition or sharing

Deliverables: curated lipid list & reporting template

annotation table (CSV/TSV) naming and ID SOP (PDF/HTML) checklist for manuscripts and repos