

Data Standards & Repositories: MetaboLights & mzTab-M — Hands-on

Learn how to make your metabolomics and lipidomics studies truly FAIR using community data standards and repositories. You will work with mzML and mzTab-M style formats, structure metadata using ISA-Tab concepts, prepare submissions to MetaboLights, and build reusable data packages suitable for long-term sharing and reanalysis.

Data Standards & Repositories: MetaboLights & mzTab-M

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Session 1

Fee: Rs 8800 [Apply Now](#)

FAIR Principles & Metabolomics Data Models

FAIR data thinking for metabolomics and lipidomics

[findable and accessible datasets](#) [interoperable formats and vocabularies](#) [reusable study packages](#)

High level data models in MS based metabolomics

[raw spectra, peak lists and feature tables](#) [sample metadata and experimental factors](#) [annotation and](#)

identification layers

Why community standards and repositories matter

supporting peer review and reanalysis enabling
benchmarking and method comparison meeting
journal and funder requirements

Session 2

Fee: Rs 11800 Apply Now

Formats: mzML, mzTab-M & ISA-Tab Concepts

Vendor formats and open standard exchange formats

from proprietary raw to mzML centroided versus
profile data checksum and integrity considerations

mzTab-M style tables for metabolomics and lipidomics

sections for metadata and quant tables capturing
identifications and quant values linking to spectra
and small molecules

ISA-Tab style thinking for studies, assays and samples

Investigation, Study and Assay structure sample
characteristic and factor fields using controlled
vocabularies where possible

Session 3

Fee: Rs 14800 Apply Now

MetaboLights & Public Repositories

Landscape of metabolomics repositories

MetaboLights positioning and scope Metabolomics
Workbench style resources GNPS and spectral library
integration

MetaboLights submission structure and key fields

study description and design metadata **sample, assay and protocol information** **linking raw, processed and annotation files**

Browsing, filtering and reusing public datasets

finding datasets by organism or condition
downloading files in standard formats **taking notes for benchmarking and teaching**

Session 4

Fee: Rs 18800 Apply Now

Submission Workflows, Reuse & Compliance

End to end MetaboLights style submission workflow

organising project folders and filenames **filling key metadata templates** **common issues and validation checks**

Preparing datasets for long term reuse and citation

clear README and data dictionaries **stable identifiers and accession numbers** **licensing and citation instructions**

Checklists for FAIR, journal and funder compliance

minimum information style requirements **internal review before submission** **reusing your own standard templates**