Standards, Repositories & FAIR Microbiome Data — Hands-on

Learn how to make microbiome and metagenomics projects compliant with community standards and FAIR principles. This module covers MIxS style metadata, popular repositories, submission workflows, identifiers, provenance and practical checklists so your microbiome datasets remain findable, accessible, interoperable and reusable for years.

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Session 1
Fee: Rs 8800 Apply Now

Microbiome Standards & Metadata Foundations

Why standards matter in microbiome and metagenomics projects

reproducibility and comparison across studies
collaboration with clinics, regulators and industry
long term value of well documented datasets

Key microbiome standards and checklists overview

MIxS and environment packages concepts MINSEQE,

STORMS and related guidelines links to journal and funder requirements

Designing robust metadata models for microbiome studies

sample, subject and environment level fields controlled vocabularies and ontologies practical templates for field and lab teams

Session 2
Fee: Rs 11800 Apply Now
Repositories & Submission Workflows

Sequencing archives and microbiome repositories landscape

SRA, ENA and DRA style archives MG RAST, Qiita and similar microbiome platforms specialised AMR and pathogen databases

Preparing raw reads, metadata and processed tables for upload

file formats, naming conventions and checksums mapping metadata templates to repository fields organising amplicon and shotgun projects

Hands on walkthrough of a typical submission workflow

creating projects, studies and sample records upload clients and validation reports handling updates, embargoes and release timing

Session 3
Fee: Rs 14800 Apply Now
FAIR Principles, IDs & Provenance for Microbiome Data

Applying FAIR principles to microbiome workflows in practice

findable via rich metadata and indexing accessible with clear access conditions interoperable and reusable formats and vocabularies

Identifiers, versioning and provenance tracking basics

accessions, DOIs and project IDs tracking pipeline versions and parameters simple provenance graphs and run logs

Ethics, consent and controlled access considerations

de identifying sensitive human linked data data access committees and request flows communicating reuse conditions and licences

Session 4
Fee: Rs 18800 Apply Now

Mini Capstone: FAIR Microbiome Project Package

Packaging an example microbiome study for public sharing

theory plus guided practical using sample data

Assembling metadata, raw data links and processed outputs

MIxS aligned metadata table SRA or ENA accessions and archive links feature tables, taxonomy and pipeline notes

Deliverables: FAIR checklist, submission plan and summary note

completed FAIR readiness checklist repository submission outline or draft PDF or HTML project sharing summary