

NTHRYS

OPC PVT LTD

SECTION • FND

Foundational Molecular Lab Skills & GLP

Hands-on wet-lab training in the foundational skills every molecular biologist needs at the bench — accurate liquid handling, reagent & buffer preparation, weighing & metrology, aseptic technique, core equipment operation and Good Laboratory Practice.

06

CATEGORIES

30

PROTOCOLS

FND

SECTION ID

2026

EDITION

Categories & Protocols

Section **FND** spans 6 category streams and 30 bench protocols. Every protocol carries a unique code for enrolment, tracking and certification.

FND-LH	Liquid Handling & Pipetting Accurate micropipetting, calibration & volume transfer	05
FND-RB	Reagent, Buffer & Solution Prep Concentration math, buffers & reagent management	05
FND-WM	Weighing, Measurement & Metrology Balances, spectrophotometry & instrument calibration	05
FND-AS	Aseptic Technique & Contamination Control Sterile workflow, sterilisation & nuclease-free zones	05
FND-EQ	Core Equipment Operation Centrifugation, mixing, heating & cold-chain	05
FND-GL	Good Laboratory Practice & Documentation Records, SOPs, traceability & lab-safety conduct	05
TOTAL	All training protocols in section FND	30

CODE FORMAT

FND • **LH** • **01**

FND section

LH category

01 protocol

01

■ CATEGORY · FND-LH

Liquid Handling & Pipetting

Accurate micropipetting, calibration & volume transfer

05

PROTOCOLS

CODE

TRAINING PROTOCOL

DESCRIPTION

FND-LH-01

Micropipette Operation & Technique

Forward & reverse pipetting, P10–P1000.

FND-LH-02

Pipette Calibration & Verification

Gravimetric accuracy & precision check.

FND-LH-03

Multichannel & Repeat Pipetting

High-throughput plate dispensing.

FND-LH-04

Serological Pipetting

Bulk volume transfer technique.

FND-LH-05

Viscous & Volatile Liquid Handling

Difficult-liquid dispensing methods.

02

■ CATEGORY · FND-RB

Reagent, Buffer & Solution Prep

Concentration math, buffers & reagent management

05

PROTOCOLS

CODE

TRAINING PROTOCOL

DESCRIPTION

FND-RB-01

Molarity & Dilution Calculations

Concentration & dilution arithmetic.

FND-RB-02

Stock & Working Solutions

Preparation & traceable labelling.

FND-RB-03

Buffer Prep (TAE / TBE / TE / PBS)

Common molecular-biology buffers.

FND-RB-04

pH Measurement & Adjustment

Meter calibration & titration.

FND-RB-05

Reagent Storage & Shelf-Life

Aliquoting, stability & rotation.



■ CATEGORY · FND-WM

Weighing, Measurement & Metrology

Balances, spectrophotometry & instrument calibration



PROTOCOLS

CODE

TRAINING PROTOCOL

DESCRIPTION

FND-WM-01

**Analytical Balance
Operation**

Accurate mass measurement.

FND-WM-02

**Balance Calibration &
Verification**

Reference-weight checks.

FND-WM-03

**Spectrophotometer
Fundamentals**

Blanking & absorbance basics.

FND-WM-04

Volumetric Glassware Use

Class-A measurement & verification.

FND-WM-05

**Temperature & Instrument
Checks**

Calibration logging & control.

04

■ CATEGORY · FND-AS

Aseptic Technique & Contamination Control

Sterile workflow, sterilisation & nuclease-free zones

05
PROTOCOLS

CODE

TRAINING PROTOCOL

DESCRIPTION

FND-AS-01

**Laminar Flow / BSC
Operation**

Sterile workspace operation.

FND-AS-02

Autoclaving & Sterilisation

Moist-heat sterilisation cycles.

FND-AS-03

**Nuclease-Free Workspace
Setup**

DNase / RNase-free working zones.

FND-AS-04

Surface Decontamination

Disinfection & cleaning protocols.

FND-AS-05

Pre / Post-PCR Zoning

Cross-contamination prevention.



■ CATEGORY · FND-EQ

Core Equipment Operation

Centrifugation, mixing, heating & cold-chain



PROTOCOLS

CODE

TRAINING PROTOCOL

DESCRIPTION

FND-EQ-01

Microcentrifugation

Spin protocols & rotor balancing.

FND-EQ-02

Vortexing & Mixing

Sample homogenisation methods.

FND-EQ-03

Heat Blocks, Baths & Incubators

Precise temperature control.

FND-EQ-04

Magnetic Stirring & Heating

Solution mixing & dissolution.

FND-EQ-05

Cold Chain & Cryostorage

−20 / −80 °C & liquid-N2 storage.



■ CATEGORY · FND-GL

Good Laboratory Practice & Documentation

Records, SOPs, traceability & lab-safety conduct



PROTOCOLS

CODE

TRAINING PROTOCOL

DESCRIPTION

FND-GL-01

Laboratory Notebook Keeping

Traceable, contemporaneous records.

FND-GL-02

SOP Writing & Adherence

Standardised operating procedures.

FND-GL-03

Sample Labelling & Traceability

Chain-of-identity management.

FND-GL-04

Equipment Logs & Maintenance

Service & usage record-keeping.

FND-GL-05

PPE & Lab-Safety Conduct

Personal protection & conduct.

Build your molecular biology foundations

Every protocol in Section FND is delivered as hands-on bench training — from pipetting and buffer preparation through metrology, aseptic technique, equipment operation and Good Laboratory Practice. Mix and match protocols to design a foundation track that fits your goals.

30 protocols

6 categories

FND section

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