

NTHRYS

OPC PVT LTD

CATALOGUE 01 • NBDB

Biological Databases & Data Resources

A complete industrial catalogue of hands-on training modules in biological data resources — from INSDC archives and protein family databases to clinical variant portals, programmatic retrieval and local database construction. Every module is issued against its own controlled protocol, contact-hour allocation and published fee.

59 PROTOCOL-BACKED MODULES • 10 CATEGORY STREAMS
1706 CONTACT HOURS • 2026 EDITION

59

MODULES

10

STREAMS

1706

HOURS

59

PROTOCOLS

Program Categories at a Glance

This catalogue lists every biological data resource our training programs are equipped to operate and teach, organised into 10 technology streams. Each module carries a unique product code, a controlled protocol document, an individually assessed contact-hour allocation and its own published fee. No two protocols are priced alike — duration and fee follow the resource load, query depth and assessment weight of that specific module.

STREAM	CATEGORY	FOCUS DESCRIPTION	MODULES	HOURS	DAYS	BUNDLE (INR)
NBDB-NA	Nucleotide Sequence Databases	INSDC archives, RefSeq & sequence submission	6	162	28	48,300
NBDB-PA	Protein Sequence & Family Databases	UniProt, InterPro, Pfam & signature resources	6	164	30	49,300
NBDB-GD	Genome & Organism-Specific Databases	Browsers, assemblies & model-organism portals	6	174	30	52,600
NBDB-ST	Structural & Chemical Databases	PDB, fold classification, compounds & bioactivity	6	178	32	55,000
NBDB-EX	Expression & Omics Repositories	GEO, SRA, atlases & proteomics archives	6	170	31	52,000
NBDB-FN	Functional, Pathway & Ontology Databases	GO, KEGG, Reactome, interactions & vocabularies	6	168	30	51,300
NBDB-CL	Clinical, Variant & Disease Databases	Variation, population frequency & clinical evidence	6	188	33	59,100
NBDB-LT	Literature & Bibliographic Resources	PubMed strategy, open access & patent sequences	5	108	19	32,000
NBDB-AC	Programmatic Access & Bulk Retrieval	APIs, BioMart, FTP mirrors & retrieval scripting	6	206	36	65,000
NBDB-CU	Curation, Submission & Data Stewardship	Standards, metadata, deposition & local databases	6	188	34	57,800
Complete NBDB catalogue			59	1706	303	399,600

HOW TO READ A MODULE CODE

NBDB – NA – 01

NBDB
Nthrys Bioinformatics catalogue — Biological Databases

NA
Category stream code

01
Module number within the stream

HOW TO READ A PROTOCOL REFERENCE

PRT/NBDB/NA/01

PRT
Controlled protocol held in the training SOP register

NBDB/NA/01
Maps one-to-one to the module code alongside

Bundle figures are the discounted price for enrolling in every module of that stream together. Individual module hours and fees are printed on each category page. All fees exclude applicable GST.

Every Module Is a Controlled Protocol

There is no flat course fee in this catalogue. Each module is written up as its own protocol document, timed against the work it actually contains, and priced on that basis — contact hours, number of resources operated, query complexity and the depth of the assessment task.

CONTENTS OF EVERY PRT DOCUMENT

01

Scope & competency statement

What the trainee will be able to do on completion, mapped to the module code.

02

Resource inventory

Databases, releases, versions, access routes and licence position recorded before start.

03

Stepwise procedure

Numbered operations with decision points, screen references and expected intermediates.

04

Worked reference exercise

A supplied accession set with the correct output for self-verification.

05

Acceptance criteria

The output a trainee must reproduce for the protocol to be signed as complete.

06

Failure modes & troubleshooting

Known error states, ambiguous records and how each is resolved.

07

Assessment task & marking

The independent task, its weighting and the pass threshold.

08

Completion record

Trainer sign-off, date, hours logged and certificate serial entry.

MODULE DURATION RANGE

16 – 60 hours

Allocated per protocol, not per tier. A single-archive orientation module runs 16 hours; building and querying a local biological database runs 60.

MODULE FEE RANGE

INR 5,600 – 22,500

Set individually against each protocol. Scripting, API and database-construction modules carry the highest resource and supervision load.

1706

TOTAL HOURS

303

TOTAL DAYS

59

PROTOCOLS

WHAT THE MODULE FEE INCLUDES

— Workstation access

— Issued protocol

— Reference datasets

— Certification

— Post-training support

— Registration

— Taxes

— Live-online mode

— Concessions

— Scheduling

— Validity

Biological Databases & Data Resources Training Programs

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03 / 14

01

CATEGORY • NBDB-NA

Nucleotide Sequence Databases

INSDC archives, RefSeq & sequence submission

6

MODULES

CODE	TRAINING MODULE	PROTOCOL REF	DURATION		FEE (INR)
NBDB-NA-01	GenBank Architecture & Record Anatomy Flat-file fields, LOCUS to ORIGIN, accession logic.	PRT/NBDB/NA/01	24 HOURS	04 DAYS	8,200
NBDB-NA-02	Entrez Retrieval & Advanced Query Building Field tags, boolean logic, filters & search history.	PRT/NBDB/NA/02	30 HOURS	05 DAYS	10,400
NBDB-NA-03	RefSeq & Curated Reference Collections Curation tiers, accession prefixes, reference selection.	PRT/NBDB/NA/03	22 HOURS	04 DAYS	7,600
NBDB-NA-04	ENA & DDBJ Mirror Resources INSDC exchange model, browsers & file formats.	PRT/NBDB/NA/04	18 HOURS	03 DAYS	6,300
NBDB-NA-05	Nucleotide Submission Workflows BankIt, Webin, templates & accession issue.	PRT/NBDB/NA/05	36 HOURS	06 DAYS	12,900
NBDB-NA-06	Read & Assembly Archive Records SRA/ENA runs, Run Selector & assembly records.	PRT/NBDB/NA/06	32 HOURS	06 DAYS	11,400

STREAM BUNDLE • 6 MODULES • 6 PROTOCOLS • 162 HOURS • 28 DAYS

~~56,800~~ 48,300 INR

Each module is enrolled and certified independently against its own protocol reference, or taken together as the discounted stream bundle. Duration is the logged contact-hour allocation for that protocol; days are computed at six contact hours per working day. Fees exclude applicable GST.

02

CATEGORY • NBDB-PA

Protein Sequence & Family Databases

UniProt, InterPro, Pfam & signature resources

6

MODULES

CODE	TRAINING MODULE	PROTOCOL REF	DURATION		FEE (INR)
NBDB-PA-01	UniProtKB / Swiss-Prot Record Interpretation Annotation blocks, evidence codes & cross-references.	PRT/NBDB/PA/01	26 HOURS	05 DAYS	9,000
NBDB-PA-02	TrEMBL, Proteomes & Reference Proteomes Automatic annotation & proteome set selection.	PRT/NBDB/PA/02	20 HOURS	04 DAYS	7,000
NBDB-PA-03	InterPro Integrated Domain Analysis Member databases, signatures & match views.	PRT/NBDB/PA/03	34 HOURS	06 DAYS	12,200
NBDB-PA-04	Pfam & Profile-HMM Family Resources Families, clans, seed alignments & HMM entries.	PRT/NBDB/PA/04	38 HOURS	07 DAYS	13,700
NBDB-PA-05	PROSITE, PRINTS & Pattern Databases Patterns, profiles & ScanProsite operation.	PRT/NBDB/PA/05	24 HOURS	04 DAYS	8,400
NBDB-PA-06	NCBI Protein, CDD & Conserved Domains Protein clusters, CDD search & domain hits.	PRT/NBDB/PA/06	22 HOURS	04 DAYS	7,700

STREAM BUNDLE • 6 MODULES • 6 PROTOCOLS • 164 HOURS • 30 DAYS

~~58,000~~ 49,300 INR

Each module is enrolled and certified independently against its own protocol reference, or taken together as the discounted stream bundle. Duration is the logged contact-hour allocation for that protocol; days are computed at six contact hours per working day. Fees exclude applicable GST.

03

CATEGORY • NBDB-GD

Genome & Organism-Specific Databases

Browsers, assemblies & model-organism portals

6

MODULES

CODE	TRAINING MODULE	PROTOCOL REF	DURATION		FEE (INR)
NBDB-GD-01	Ensembl Genome Browser & Data Model Regions, gene trees, comparative views & exports.	PRT/NBDB/GD/01	36 HOURS	06 DAYS	13,000
NBDB-GD-02	UCSC Browser, Track Hubs & Table Browser Tracks, custom hubs & tabular extraction.	PRT/NBDB/GD/02	34 HOURS	06 DAYS	12,300
NBDB-GD-03	NCBI Genome, Assembly & Datasets Portal Assembly levels & GenBank/RefSeq pairing.	PRT/NBDB/GD/03	24 HOURS	04 DAYS	8,400
NBDB-GD-04	Model Organism Databases SGD, FlyBase, WormBase, TAIR, MGI & ZFIN.	PRT/NBDB/GD/04	30 HOURS	05 DAYS	10,600
NBDB-GD-05	Microbial & Pathogen Genome Resources Strain portals, genome & isolate metadata.	PRT/NBDB/GD/05	28 HOURS	05 DAYS	9,900
NBDB-GD-06	Plant, Crop & Livestock Genome Portals Gramene, Phytozome & divisional Ensembl sites.	PRT/NBDB/GD/06	22 HOURS	04 DAYS	7,700

STREAM BUNDLE • 6 MODULES • 6 PROTOCOLS • 174 HOURS • 30 DAYS

~~61,900~~ 52,600 INR

Each module is enrolled and certified independently against its own protocol reference, or taken together as the discounted stream bundle. Duration is the logged contact-hour allocation for that protocol; days are computed at six contact hours per working day. Fees exclude applicable GST.

04

CATEGORY • NBDB-ST

Structural & Chemical Databases

PDB, fold classification, compounds & bioactivity

6

MODULES

CODE	TRAINING MODULE	PROTOCOL REF	DURATION		FEE (INR)
NBDB-ST-01	RCSB PDB Records & Validation Reports Entry anatomy, file formats & validation metrics.	PRT/NBDB/ST/01	30 HOURS	05 DAYS	10,800
NBDB-ST-02	PDBe, PDBj & wwPDB Services Partner services, ligand components & APIs.	PRT/NBDB/ST/02	20 HOURS	04 DAYS	7,200
NBDB-ST-03	SCOP, CATH & Fold Classification Hierarchies, domain assignment & superfamilies.	PRT/NBDB/ST/03	32 HOURS	06 DAYS	11,600
NBDB-ST-04	EMDB, EMPIAR & Cryo-EM Resources Map entries, raw-data archives & metadata.	PRT/NBDB/ST/04	24 HOURS	04 DAYS	8,700
NBDB-ST-05	PubChem, ChEBI & Compound Resources Substances, compounds, bioassays & identifiers.	PRT/NBDB/ST/05	28 HOURS	05 DAYS	10,100
NBDB-ST-06	DrugBank, ChEMBL, BindingDB & ZINC Bioactivity records, targets & screening libraries.	PRT/NBDB/ST/06	44 HOURS	08 DAYS	16,300

STREAM BUNDLE • 6 MODULES • 6 PROTOCOLS • 178 HOURS • 32 DAYS

~~64,700~~ 55,000 INR

Each module is enrolled and certified independently against its own protocol reference, or taken together as the discounted stream bundle. Duration is the logged contact-hour allocation for that protocol; days are computed at six contact hours per working day. Fees exclude applicable GST.

05

CATEGORY • NBDB-EX

Expression & Omics Repositories

GEO, SRA, atlases & proteomics archives

6

MODULES

CODE	TRAINING MODULE	PROTOCOL REF	DURATION		FEE (INR)
NBDB-EX-01	GEO Series, Samples & Platform Records GSE / GSM / GPL structure & supplementary files.	PRT/NBDB/EX/01	32 HOURS	06 DAYS	11,500
NBDB-EX-02	ArrayExpress & BioStudies Navigation Study structure, protocols & retrieval.	PRT/NBDB/EX/02	20 HOURS	04 DAYS	7,000
NBDB-EX-03	SRA & ENA Read Repository Workflows Run Selector, prefetch, fasterq & metadata pull.	PRT/NBDB/EX/03	38 HOURS	07 DAYS	13,900
NBDB-EX-04	Expression Atlas, GTEx & HPA Baseline & differential expression atlases.	PRT/NBDB/EX/04	28 HOURS	05 DAYS	10,000
NBDB-EX-05	PRIDE & ProteomeXchange Repositories Submission classes, PSM data & reprocessing.	PRT/NBDB/EX/05	30 HOURS	05 DAYS	10,900
NBDB-EX-06	MetaboLights & Metabolomics Workbench Study metadata, assay files & spectra retrieval.	PRT/NBDB/EX/06	22 HOURS	04 DAYS	7,900

STREAM BUNDLE • 6 MODULES • 6 PROTOCOLS • 170 HOURS • 31 DAYS

~~61,200~~ 52,000 INR

Each module is enrolled and certified independently against its own protocol reference, or taken together as the discounted stream bundle. Duration is the logged contact-hour allocation for that protocol; days are computed at six contact hours per working day. Fees exclude applicable GST.

06

CATEGORY • NBDB-FN

Functional, Pathway & Ontology Databases

GO, KEGG, Reactome, interactions & vocabularies

6

MODULES

CODE	TRAINING MODULE	PROTOCOL REF	DURATION		FEE (INR)
NBDB-FN-01	Gene Ontology Structure & Evidence Codes Three aspects, GAF files & annotation quality.	PRT/NBDB/FN/01	30 HOURS	05 DAYS	10,700
NBDB-FN-02	KEGG Pathway, Orthology & Modules KO assignment, maps, modules & KEGG API.	PRT/NBDB/FN/02	34 HOURS	06 DAYS	12,400
NBDB-FN-03	Reactome & Pathway Commons Event hierarchy, export formats & overlays.	PRT/NBDB/FN/03	26 HOURS	05 DAYS	9,300
NBDB-FN-04	STRING, BioGRID & Interaction Databases Evidence channels, scores & network export.	PRT/NBDB/FN/04	32 HOURS	06 DAYS	11,700
NBDB-FN-05	BRENDA, ExPASy ENZYME & MetaCyc EC classification, kinetics & metabolic reference.	PRT/NBDB/FN/05	22 HOURS	04 DAYS	7,800
NBDB-FN-06	MeSH, UMLS & Biomedical Vocabularies Indexing, concept mapping & term hierarchies.	PRT/NBDB/FN/06	24 HOURS	04 DAYS	8,500

STREAM BUNDLE • 6 MODULES • 6 PROTOCOLS • 168 HOURS • 30 DAYS

~~60,400~~ 51,300 INR

Each module is enrolled and certified independently against its own protocol reference, or taken together as the discounted stream bundle. Duration is the logged contact-hour allocation for that protocol; days are computed at six contact hours per working day. Fees exclude applicable GST.

07

CATEGORY • NBDB-CL

Clinical, Variant & Disease Databases

Variation, population frequency & clinical evidence

6

MODULES

CODE	TRAINING MODULE	PROTOCOL REF	DURATION		FEE (INR)
NBDB-CL-01	dbSNP & dbVar Variation Resources rsID records, HGVS notation & variant classes.	PRT/NBDB/CL/01	28 HOURS	05 DAYS	10,200
NBDB-CL-02	ClinVar Records & Submission Model Assertions, review status & conflict handling.	PRT/NBDB/CL/02	32 HOURS	06 DAYS	11,800
NBDB-CL-03	OMIM, Orphanet & Disease Catalogues MIM numbering & gene-phenotype relationships.	PRT/NBDB/CL/03	22 HOURS	04 DAYS	8,000
NBDB-CL-04	gnomAD & Population Frequency Resources Coverage, popmax, constraint & filtering use.	PRT/NBDB/CL/04	30 HOURS	05 DAYS	11,100
NBDB-CL-05	COSMIC, cBioPortal & Cancer Portals Somatic catalogues, cohorts & query interfaces.	PRT/NBDB/CL/05	42 HOURS	07 DAYS	15,800
NBDB-CL-06	PharmGKB, CIViC & Clinical Annotation Evidence levels & drug-gene relationship records.	PRT/NBDB/CL/06	34 HOURS	06 DAYS	12,600

STREAM BUNDLE • 6 MODULES • 6 PROTOCOLS • 188 HOURS • 33 DAYS

~~69,500~~ 59,100 INR

Each module is enrolled and certified independently against its own protocol reference, or taken together as the discounted stream bundle. Duration is the logged contact-hour allocation for that protocol; days are computed at six contact hours per working day. Fees exclude applicable GST.

08

CATEGORY • NBDB-LT

Literature & Bibliographic Resources

PubMed strategy, open access & patent sequences

5

MODULES

CODE	TRAINING MODULE	PROTOCOL REF	DURATION		FEE (INR)
NBDB-LT-01	PubMed, MEDLINE & Search Strategy Design MeSH-driven queries, filters & alerts.	PRT/NBDB/LT/01	24 HOURS	04 DAYS	8,200
NBDB-LT-02	PMC, Preprints & Open-Access Retrieval Full-text access & bulk OA subsets.	PRT/NBDB/LT/02	18 HOURS	03 DAYS	6,200
NBDB-LT-03	Scopus, Web of Science & Citation Analytics Coverage, metrics & citation tracking.	PRT/NBDB/LT/03	20 HOURS	04 DAYS	6,900
NBDB-LT-04	Patent & Sequence Patent Databases Patent sequence listings & prior-art searching.	PRT/NBDB/LT/04	30 HOURS	05 DAYS	10,800
NBDB-LT-05	Reference & Bibliographic Data Management RIS/BibTeX handling, de-duplication & libraries.	PRT/NBDB/LT/05	16 HOURS	03 DAYS	5,600

STREAM BUNDLE • 5 MODULES • 5 PROTOCOLS • 108 HOURS • 19 DAYS

~~27,700~~ 32,000 INR

Each module is enrolled and certified independently against its own protocol reference, or taken together as the discounted stream bundle. Duration is the logged contact-hour allocation for that protocol; days are computed at six contact hours per working day. Fees exclude applicable GST.

09

CATEGORY • NBDB-AC

Programmatic Access & Bulk Retrieval

APIs, BioMart, FTP mirrors & retrieval scripting

6

MODULES

CODE	TRAINING MODULE	PROTOCOL REF	DURATION		FEE (INR)
NBDB-AC-01	Entrez E-utilities Programming esearch, efetch & elink chaining with history.	PRT/NBDB/AC/01	40 HOURS	07 DAYS	14,800
NBDB-AC-02	UniProt REST API & Stream Endpoints Query syntax, field selection & pagination.	PRT/NBDB/AC/02	32 HOURS	06 DAYS	11,900
NBDB-AC-03	Ensembl REST & Language Clients Endpoint families, rate limits & POST queries.	PRT/NBDB/AC/03	34 HOURS	06 DAYS	12,700
NBDB-AC-04	BioMart & Bulk Attribute Mining Datasets, filters, attributes & identifier joins.	PRT/NBDB/AC/04	28 HOURS	05 DAYS	10,300
NBDB-AC-05	FTP, Mirrors & Bulk Download Management Checksums, incremental sync & local mirrors.	PRT/NBDB/AC/05	24 HOURS	04 DAYS	8,600
NBDB-AC-06	Biopython & rentrez Retrieval Scripting Automated, resumable retrieval pipelines.	PRT/NBDB/AC/06	48 HOURS	08 DAYS	18,200

STREAM BUNDLE • 6 MODULES • 6 PROTOCOLS • 206 HOURS • 36 DAYS

~~76,500~~ 65,000 INR

Each module is enrolled and certified independently against its own protocol reference, or taken together as the discounted stream bundle. Duration is the logged contact-hour allocation for that protocol; days are computed at six contact hours per working day. Fees exclude applicable GST.

10

CATEGORY • NBDB-CU

Curation, Submission & Data Stewardship

Standards, metadata, deposition & local databases

6

MODULES

CODE	TRAINING MODULE	PROTOCOL REF	DURATION		FEE (INR)
NBDB-CU-01	Curation Principles & Evidence Assessment Manual versus automatic curation workflows.	PRT/NBDB/CU/01	26 HOURS	05 DAYS	9,100
NBDB-CU-02	Accession, Versioning & Identifier Management Stable IDs, deprecation & ID mapping.	PRT/NBDB/CU/02	22 HOURS	04 DAYS	7,800
NBDB-CU-03	Minimum Information Standards MIAME, MIAPE, MIXS & reporting checklists.	PRT/NBDB/CU/03	28 HOURS	05 DAYS	9,900
NBDB-CU-04	Controlled Vocabularies & Metadata Modelling Ontology selection & structured annotation.	PRT/NBDB/CU/04	32 HOURS	06 DAYS	11,600
NBDB-CU-05	Data Deposition, Embargo & Journal Compliance Timelines, release policy & accession reporting.	PRT/NBDB/CU/05	20 HOURS	04 DAYS	7,100
NBDB-CU-06	Building a Local Biological Database Schema design, loading, indexing, query & backup.	PRT/NBDB/CU/06	60 HOURS	10 DAYS	22,500

STREAM BUNDLE • 6 MODULES • 6 PROTOCOLS • 188 HOURS • 34 DAYS

~~68,000~~ 57,800 INR

Each module is enrolled and certified independently against its own protocol reference, or taken together as the discounted stream bundle. Duration is the logged contact-hour allocation for that protocol; days are computed at six contact hours per working day. Fees exclude applicable GST.

Build a Career in Biological Data Science

Every module in this catalogue is delivered as hands-on training on live biological data resources, against a controlled protocol issued at the start and signed off at the end — covering archive navigation and record interpretation, advanced query construction, protein family and structural resources, expression and omics repositories, pathway and ontology systems, clinical variant portals, programmatic retrieval through APIs and bulk mirrors, curation standards and the construction of a working local biological database. Mix and match modules to design a track that fits your goals.

59TRAINING
MODULES

59CONTROLLED
PROTOCOLS

10CATEGORY
STREAMS

1706CONTACT
HOURS

01OF THE NTHRYS
BIOINFORMATICS SERIES**NTHRYS OPC PVT LTD**

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CATALOGUE

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