

Exomics Workshops

Exomics Workshops

NTHRYS BIOTECH LABS provides a diverse array of workshops in the realm of Exomics. Explore our comprehensive offerings below

[Exomics Workshops Application Process](#)

[Back to All Workshops](#)

Navigate the Exomics Landscape: Workshop Options Ahead!

1. [Workshop in Introduction to ExomicsPDF](#)
2. [Workshop in Advanced Exomics TechniquesPDF](#)
3. [Workshop in Population ExomicsPDF](#)
4. [Workshop in Exomics for Precision MedicinePDF](#)
5. [Workshop in Functional ExomicsPDF](#)
6. [Workshop in Exomics for Cancer ResearchPDF](#)
7. [Workshop in Clinical ExomicsPDF](#)
8. [Workshop in Exomics for NeurogeneticsPDF](#)
9. [Workshop in Regulatory and Ethical Considerations in ExomicsPDF](#)
10. [Workshop in Exomics for Infectious Disease ResearchPDF](#)

1. Workshop in Introduction to Exomics

+

Date: Pre Selected Date

Fee: Rs 6000/-

Duration: One Day

Mode: Offline and Virtual

Location for Offline: NBL Cherlapalli IDA Branch

Facilitator(s): NTHRYS TEAM

8:00 AM - 8:30 AM: Registration and Welcome Coffee

Participants arrive, register, and network over coffee.

8:30 AM - 8:45 AM: Opening Remarks

Welcome by the host.

Brief overview of today's focus.

8:45 AM - 10:15 AM: Session 1: Exome Sequencing Protocols

Hands-on workshop on exome sequencing.

Protocols for extracting DNA, preparing exome libraries, and running next-generation sequencing (NGS) workflows.

10:15 AM - 10:30 AM: Coffee / Tea / Snacks Break

Networking and refreshments.

10:30 AM - 12:00 PM: Session 2: Exome Data Analysis Pipelines

Practical session on bioinformatics pipelines for exome data.

Protocols for variant calling, alignment, and annotation using popular tools like GATK and ANNOVAR.

12:00 PM - 1:00 PM: Lunch Break

Catered lunch and networking opportunity.

1:00 PM - 2:30 PM: Session 3: Quality Control in Exome Sequencing

Hands-on training on quality control for exome sequencing data.

Protocols for assessing read quality, depth of coverage, and sequencing errors.

2:30 PM - 2:45 PM: Short Break

Time for a stretch and informal discussions.

2:45 PM - 4:15 PM: Session 4: Functional Interpretation of Exome Variants

Practical session on interpreting exome variants.

Protocols for linking genetic variants to phenotypic outcomes using databases like ClinVar and OMIM.

4:15 PM - 4:30 PM: Coffee / Tea / Snacks Break

Last networking opportunity with snacks.

4:30 PM - 5:30 PM: Closing Session: Implementing Changes and Technology Adoption

Group discussions on implementing new techniques learned today.

Dialogue on overcoming challenges in adopting new technologies in similar sectors.

Feedback session and closing remarks.

Certificate Issue

5:30 PM: Workshop Concludes

2. Workshop in Advanced Exomics Techniques

+

Date: Pre Selected Date

Fee: Rs 6000/-

Duration: One Day

Mode: Offline and Virtual

Location for Offline: NBL Cherlapalli IDA Branch

Facilitator(s): NTHRYS TEAM

8:00 AM - 8:30 AM: Registration and Welcome Coffee

Participants arrive, register, and network over coffee.

8:30 AM - 8:45 AM: Opening Remarks

Welcome by the host.
Brief overview of today's focus.

8:45 AM - 10:15 AM: Session 1: Targeted Exome Capture Protocols

Hands-on workshop on targeted exome capture techniques.
Protocols for using hybridization probes to enrich specific regions of the genome before sequencing.

10:15 AM - 10:30 AM: Coffee / Tea / Snacks Break

Networking and refreshments.

10:30 AM - 12:00 PM: Session 2: Custom Exome Panels for Disease Research

Practical session on designing custom exome panels.
Protocols for creating disease-specific panels for conditions like cancer, neurological disorders, and cardiovascular diseases.

12:00 PM - 1:00 PM: Lunch Break

Catered lunch and networking opportunity.

1:00 PM - 2:30 PM: Session 3: Mitochondrial Exome Sequencing

Hands-on training on mitochondrial exome sequencing.
Protocols for sequencing and analyzing the exome of mitochondrial DNA to study mitochondrial disorders.

2:30 PM - 2:45 PM: Short Break

Time for a stretch and informal discussions.

2:45 PM - 4:15 PM: Session 4: Exome Sequencing in Cancer Genomics

Practical session on using exome sequencing in cancer research.
Protocols for detecting somatic mutations, copy number variations, and structural variants in tumor samples.

4:15 PM - 4:30 PM: Coffee / Tea / Snacks Break

Last networking opportunity with snacks.

4:30 PM - 5:30 PM: Closing Session: Implementing Changes and Technology Adoption

Group discussions on implementing new techniques learned today.
Dialogue on overcoming challenges in adopting new technologies in similar sectors.
Feedback session and closing remarks.

Certificate Issue

5:30 PM: Workshop Concludes

3. Workshop in Population Exomics

+

Date: Pre Selected Date

Fee: Rs 6000/-

Duration: One Day

Mode: Offline and Virtual

Location for Offline: NBL Cherlapalli IDA Branch

Facilitator(s): NTHRYS TEAM

8:00 AM - 8:30 AM: Registration and Welcome Coffee

Participants arrive, register, and network over coffee.

8:30 AM - 8:45 AM: Opening Remarks

Welcome by the host.
Brief overview of today's focus.

8:45 AM - 10:15 AM: Session 1: Large-Scale Exome Sequencing for Population Studies

Hands-on workshop on large-scale exome sequencing.
Protocols for scaling exome sequencing workflows for population genomics projects, including sample prep automation and data management.

10:15 AM - 10:30 AM: Coffee / Tea / Snacks Break

Networking and refreshments.

10:30 AM - 12:00 PM: Session 2: Exome-Wide Association Studies (ExWAS)

Practical session on conducting exome-wide association studies.
Protocols for associating exome variants with phenotypic traits across populations.

12:00 PM - 1:00 PM: Lunch Break

Catered lunch and networking opportunity.

1:00 PM - 2:30 PM: Session 3: Rare Variant Detection in Populations

Hands-on training on detecting rare variants in population exomes.
Protocols for identifying and analyzing rare genetic variants using exome sequencing data.

2:30 PM - 2:45 PM: Short Break

Time for a stretch and informal discussions.

2:45 PM - 4:15 PM: Session 4: Integrating Exome Data with Clinical and Phenotypic Data

Practical session on integrating exome data with clinical data.
Protocols for linking genetic findings to clinical outcomes using phenotypic databases and electronic health records.

4:15 PM - 4:30 PM: Coffee / Tea / Snacks Break

Last networking opportunity with snacks.

4:30 PM - 5:30 PM: Closing Session: Implementing Changes and Technology Adoption

Group discussions on implementing new techniques learned today.
Dialogue on overcoming challenges in adopting new technologies in similar sectors.
Feedback session and closing remarks.

Certificate Issue

5:30 PM: Workshop Concludes

4. Workshop in Exomics for Precision Medicine

+

Date: Pre Selected Date

Fee: Rs 6000/-

Duration: One Day

Mode: Offline and Virtual

Location for Offline: NBL Cherlapalli IDA Branch

Facilitator(s): NTHRYS TEAM

8:00 AM - 8:30 AM: Registration and Welcome Coffee

Participants arrive, register, and network over coffee.

8:30 AM - 8:45 AM: Opening Remarks

Welcome by the host.

Brief overview of today's focus.

8:45 AM - 10:15 AM: Session 1: Pharmacogenomics and Exome Sequencing

Hands-on training on using exome sequencing in pharmacogenomics.

Protocols for identifying exonic variants that influence drug metabolism and response.

10:15 AM - 10:30 AM: Coffee / Tea / Snacks Break

Networking and refreshments.

10:30 AM - 12:00 PM: Session 2: Exome Sequencing for Personalized Treatment Plans

Practical session on creating personalized treatment plans based on exome data.

Protocols for using genetic variants to guide precision medicine approaches in

various diseases.

12:00 PM - 1:00 PM: Lunch Break

Catered lunch and networking opportunity.

1:00 PM - 2:30 PM: Session 3: Exome Sequencing in Rare Disease Diagnostics

Hands-on workshop on diagnosing rare diseases with exome sequencing.
Protocols for identifying causative variants in patients with undiagnosed genetic disorders.

2:30 PM - 2:45 PM: Short Break

Time for a stretch and informal discussions.

2:45 PM - 4:15 PM: Session 4: Integrating Exome Data into Clinical Decision Support Systems

Practical session on integrating exome data into clinical workflows.
Protocols for building decision support systems that utilize exome sequencing results for patient care.

4:15 PM - 4:30 PM: Coffee / Tea / Snacks Break

Last networking opportunity with snacks.

4:30 PM - 5:30 PM: Closing Session: Implementing Changes and Technology Adoption

Group discussions on implementing new techniques learned today.
Dialogue on overcoming challenges in adopting new technologies in similar sectors.
Feedback session and closing remarks.

Certificate Issue

5:30 PM: Workshop Concludes

5. Workshop in Functional Exomics

+

Date: Pre Selected Date

Fee: Rs 6000/-

Duration: One Day

Mode: Offline and Virtual

Location for Offline: NBL Cherlapalli IDA Branch

Facilitator(s): NTHRYS TEAM

8:00 AM - 8:30 AM: Registration and Welcome Coffee

Participants arrive, register, and network over coffee.

8:30 AM - 8:45 AM: Opening Remarks

Welcome by the host.

Brief overview of today's focus.

8:45 AM - 10:15 AM: Session 1: Functional Validation of Exome Variants

Practical session on validating exome variants in the lab.

Protocols for using CRISPR and other gene-editing tools to test the functional impact of exome variants.

10:15 AM - 10:30 AM: Coffee / Tea / Snacks Break

Networking and refreshments.

10:30 AM - 12:00 PM: Session 2: High-Throughput Functional Assays for Exomics

Hands-on training on high-throughput assays for exomics.

Protocols for using techniques like flow cytometry, reporter assays, and cellular phenotyping to study variant function.

12:00 PM - 1:00 PM: Lunch Break

Catered lunch and networking opportunity.

1:00 PM - 2:30 PM: Session 3: Exomic Data Integration with Proteomics and Transcriptomics

Practical session on integrating exome data with other omics layers.

Protocols for combining exomics with proteomics and transcriptomics for

comprehensive biological insights.

2:30 PM - 2:45 PM: Short Break

Time for a stretch and informal discussions.

2:45 PM - 4:15 PM: Session 4: In Vivo and In Vitro Models for Exomic Research

Hands-on workshop on using model organisms and cell lines to study exome variants.

Protocols for creating and using in vivo and in vitro models to assess the functional impact of genetic variants.

4:15 PM - 4:30 PM: Coffee / Tea / Snacks Break

Last networking opportunity with snacks.

4:30 PM - 5:30 PM: Closing Session: Implementing Changes and Technology Adoption

Group discussions on implementing new techniques learned today.

Dialogue on overcoming challenges in adopting new technologies in similar sectors.

Feedback session and closing remarks.

Certificate Issue

5:30 PM: Workshop Concludes

6. Workshop in Exomics for Cancer Research

+

Date: Pre Selected Date

Fee: Rs 6000/-

Duration: One Day

Mode: Offline and Virtual

Location for Offline: NBL Cherlapalli IDA Branch

Facilitator(s): NTHRYS TEAM

8:00 AM - 8:30 AM: Registration and Welcome Coffee

Participants arrive, register, and network over coffee.

8:30 AM - 8:45 AM: Opening Remarks

Welcome by the host.

Brief overview of today's focus.

8:45 AM - 10:15 AM: Session 1: Tumor Exome Sequencing Protocols

Hands-on workshop on exome sequencing of tumor samples.

Protocols for extracting DNA from tumor tissues and running exome sequencing to identify driver mutations.

10:15 AM - 10:30 AM: Coffee / Tea / Snacks Break

Networking and refreshments.

10:30 AM - 12:00 PM: Session 2: Somatic vs Germline Variant Detection in Exomics

Practical session on distinguishing between somatic and germline variants.

Protocols for analyzing paired tumor-normal samples and identifying clinically actionable mutations.

12:00 PM - 1:00 PM: Lunch Break

Catered lunch and networking opportunity.

1:00 PM - 2:30 PM: Session 3: Targeted Therapies Based on Exomic Data

Hands-on training on linking exomic data to targeted therapies.

Protocols for identifying genetic variants that guide the use of targeted cancer treatments.

2:30 PM - 2:45 PM: Short Break

Time for a stretch and informal discussions.

2:45 PM - 4:15 PM: Session 4: Exomic Biomarkers for Cancer

Prognosis

Practical session on using exome sequencing to discover biomarkers.
Protocols for identifying exome-based biomarkers associated with cancer prognosis and treatment outcomes.

4:15 PM - 4:30 PM: Coffee / Tea / Snacks Break

Last networking opportunity with snacks.

4:30 PM - 5:30 PM: Closing Session: Implementing Changes and Technology Adoption

Group discussions on implementing new techniques learned today.
Dialogue on overcoming challenges in adopting new technologies in similar sectors.
Feedback session and closing remarks.

Certificate Issue

5:30 PM: Workshop Concludes

7. Workshop in Clinical Exomics

+

Date: Pre Selected Date

Fee: Rs 6000/-

Duration: One Day

Mode: Offline and Virtual

Location for Offline: NBL Cherlapalli IDA Branch

Facilitator(s): NTHRYS TEAM

8:00 AM - 8:30 AM: Registration and Welcome Coffee

Participants arrive, register, and network over coffee.

8:30 AM - 8:45 AM: Opening Remarks

Welcome by the host.

Brief overview of today's focus.

8:45 AM - 10:15 AM: Session 1: Clinical Exome Sequencing Workflow

Hands-on workshop on clinical exome sequencing.
Protocols for sample collection, library preparation, sequencing, and clinical-grade data analysis.

10:15 AM - 10:30 AM: Coffee / Tea / Snacks Break

Networking and refreshments.

10:30 AM - 12:00 PM: Session 2: Diagnostic Pipelines for Exome Sequencing

Practical session on setting up diagnostic pipelines.
Protocols for integrating exome sequencing data into clinical diagnostics, including reporting and validation.

12:00 PM - 1:00 PM: Lunch Break

Catered lunch and networking opportunity.

1:00 PM - 2:30 PM: Session 3: Variant Curation in Clinical Exomics

Hands-on training on variant curation.
Protocols for curating variants using clinical databases and guidelines like ACMG to classify pathogenicity.

2:30 PM - 2:45 PM: Short Break

Time for a stretch and informal discussions.

2:45 PM - 4:15 PM: Session 4: Exome Sequencing for Neonatal and Prenatal Diagnostics

Practical session on using exome sequencing for early diagnostics.
Protocols for applying exome sequencing in neonatal and prenatal diagnostics to identify genetic disorders.

4:15 PM - 4:30 PM: Coffee / Tea / Snacks Break

Last networking opportunity with snacks.

4:30 PM - 5:30 PM: Closing Session: Implementing Changes and Technology Adoption

Group discussions on implementing new techniques learned today.

Dialogue on overcoming challenges in adopting new technologies in similar sectors.

Feedback session and closing remarks.

Certificate Issue

5:30 PM: Workshop Concludes

8. Workshop in Exomics for Neurogenetics

+

Date: Pre Selected Date

Fee: Rs 6000/-

Duration: One Day

Mode: Offline and Virtual

Location for Offline: NBL Cherlapalli IDA Branch

Facilitator(s): NTHRYS TEAM

8:00 AM - 8:30 AM: Registration and Welcome Coffee

Participants arrive, register, and network over coffee.

8:30 AM - 8:45 AM: Opening Remarks

Welcome by the host.

Brief overview of today's focus.

8:45 AM - 10:15 AM: Session 1: Exome Sequencing for Neurological Disorders

Hands-on workshop on using exome sequencing to study neurological diseases.

Protocols for identifying mutations linked to neurogenetic disorders like ALS, Alzheimer's, and epilepsy.

10:15 AM - 10:30 AM: Coffee / Tea / Snacks Break

Networking and refreshments.

10:30 AM - 12:00 PM: Session 2: De Novo Mutations in Neurological Disorders

Practical session on detecting de novo mutations in neurological diseases.
Protocols for analyzing exome data to identify novel mutations associated with brain disorders.

12:00 PM - 1:00 PM: Lunch Break

Catered lunch and networking opportunity.

1:00 PM - 2:30 PM: Session 3: Exome Data Integration with Brain Imaging Data

Hands-on training on combining exome data with neuroimaging.
Protocols for integrating genetic data with brain imaging to study genotype-phenotype correlations.

2:30 PM - 2:45 PM: Short Break

Time for a stretch and informal discussions.

2:45 PM - 4:15 PM: Session 4: Identifying Therapeutic Targets in Neurogenetics

Practical session on discovering therapeutic targets.
Protocols for linking exomic data to potential therapeutic targets in neurogenetic diseases.

4:15 PM - 4:30 PM: Coffee / Tea / Snacks Break

Last networking opportunity with snacks.

4:30 PM - 5:30 PM: Closing Session: Implementing Changes and Technology Adoption

Group discussions on implementing new techniques learned today.
Dialogue on overcoming challenges in adopting new technologies in similar sectors.
Feedback session and closing remarks.

Certificate Issue

5:30 PM: Workshop Concludes

9. Workshop in Regulatory and Ethical Considerations in Exomics

+

Date: Pre Selected Date

Fee: Rs 6000/-

Duration: One Day

Mode: Offline and Virtual

Location for Offline: NBL Cherlapalli IDA Branch

Facilitator(s): NTHRYS TEAM

8:00 AM - 8:30 AM: Registration and Welcome Coffee

Participants arrive, register, and network over coffee.

8:30 AM - 8:45 AM: Opening Remarks

Welcome by the host.

Brief overview of today's focus.

8:45 AM - 10:15 AM: Session 1: Ethical Issues in Exome Sequencing

Discussion on ethical issues related to exome sequencing.

Protocols for obtaining informed consent, handling incidental findings, and ensuring privacy.

10:15 AM - 10:30 AM: Coffee / Tea / Snacks Break

Networking and refreshments.

10:30 AM - 12:00 PM: Session 2: Data Sharing and Privacy in Exomics

Practical session on data sharing in exomics.

Protocols for sharing exome data securely while complying with regulatory requirements like GDPR and HIPAA.

12:00 PM - 1:00 PM: Lunch Break

Catered lunch and networking opportunity.

1:00 PM - 2:30 PM: Session 3: Regulatory Guidelines for Clinical Exome Sequencing

Hands-on training on regulatory guidelines.
Protocols for ensuring compliance with clinical guidelines for exome sequencing, including laboratory accreditation and reporting standards.

2:30 PM - 2:45 PM: Short Break

Time for a stretch and informal discussions.

2:45 PM - 4:15 PM: Session 4: Ensuring Data Integrity and Reproducibility in Exomics

Practical session on maintaining data integrity in exome sequencing.
Protocols for ensuring reproducibility and accuracy in exomic studies through proper data management and validation practices.

4:15 PM - 4:30 PM: Coffee / Tea / Snacks Break

Last networking opportunity with snacks.

4:30 PM - 5:30 PM: Closing Session: Implementing Changes and Technology Adoption

Group discussions on implementing new techniques learned today.
Dialogue on overcoming challenges in adopting new technologies in similar sectors.
Feedback session and closing remarks.

Certificate Issue

5:30 PM: Workshop Concludes

10. Workshop in Exomics for Infectious Disease Research

+

Date: Pre Selected Date

Fee: Rs 6000/-

Duration: One Day

Mode: Offline and Virtual

Location for Offline: NBL Cherlapalli IDA Branch

Facilitator(s): NTHRYS TEAM

8:00 AM - 8:30 AM: Registration and Welcome Coffee

Participants arrive, register, and network over coffee.

8:30 AM - 8:45 AM: Opening Remarks

Welcome by the host.

Brief overview of today's focus.

8:45 AM - 10:15 AM: Session 1: Exome Sequencing for Host-Pathogen Interactions

Hands-on workshop on studying host-pathogen interactions using exomics.

Protocols for identifying exome variants that influence susceptibility and resistance to infectious diseases.

10:15 AM - 10:30 AM: Coffee / Tea / Snacks Break

Networking and refreshments.

10:30 AM - 12:00 PM: Session 2: Exome-Based Discovery of Antimicrobial Resistance Genes

Practical session on discovering antimicrobial resistance genes.

Protocols for using exome sequencing to identify and characterize resistance genes in pathogens.

12:00 PM - 1:00 PM: Lunch Break

Catered lunch and networking opportunity.

1:00 PM - 2:30 PM: Session 3: Immune Response and Exome

Variants

Hands-on training on linking exome variants to immune response.
Protocols for studying how genetic variants influence immune responses to infections and vaccines.

2:30 PM - 2:45 PM: Short Break

Time for a stretch and informal discussions.

2:45 PM - 4:15 PM: Session 4: Exome Sequencing for Outbreak Investigations

Practical session on using exome sequencing in outbreak investigations.
Protocols for identifying genetic factors that contribute to pathogen spread and severity during infectious disease outbreaks.

4:15 PM - 4:30 PM: Coffee / Tea / Snacks Break

Last networking opportunity with snacks.

4:30 PM - 5:30 PM: Closing Session: Implementing Changes and Technology Adoption

Group discussions on implementing new techniques learned today.
Dialogue on overcoming challenges in adopting new technologies in similar sectors.
Feedback session and closing remarks.

Certificate Issue

5:30 PM: Workshop Concludes

Note: NTHRYS Management reserves the right to modify the workshop module at any time without prior notice. Registered or enrolled candidates will receive the module that is current on the day of enrollment.

NTHRYS Workshops Department

M: +91-7993084748

Email: workshops (a t) nthrys [d0t] com

Exomics Workshops Application Process

1. Select a workshop from the list.
2. Contact via whatsapp on the number present above to request fee details and dates suitable for joining. Alternatively, you can send an email to workshops (a t) nthrys [d 0 t] com.
3. Our Workshop department will contact you promptly to provide further assistance.