

### **Genetics Winter Training Program**

The Genetics Winter Training Program is a focused, hands-on training course covering essential techniques in DNA sequencing, gene editing, population genetics, and data analysis. It's designed for students and professionals seeking to build genetic skills during the winter season.

Note: Below modules are designed keeping high end industrial professionals into consideration. Please refer individual protocols below for affordable prices.

#### **DNA Sequencing Techniques**

Kindly review the fees outlined for the individual protocols listed in this module.

- Introduction to Sanger sequencing and interpretation
- · Basic troubleshooting for sequencing reactions
- Data analysis and base calling for Sanger results
- Storage and documentation of sequencing data

#### **Introduction to CRISPR Gene Editing**

Kindly review the fees outlined for the individual protocols listed in this module.

- Guide RNA design and synthesis for gene targets
- Transformation protocols for simple model organisms
- Screening and validation of gene edits
- · Limitations and ethical considerations of CRISPR

#### **Population Genetics and Genetic Diversity**

Kindly review the fees outlined for the individual protocols listed in this module.

- Analyzing allele frequency and genetic diversity
- Hardy-Weinberg equilibrium and its applications
- Genetic drift, selection, and migration models

• Case studies in population genetics applications

#### **Genetic Data Analysis**

## Kindly review the fees outlined for the individual protocols listed in this module.

- Using software for genetic analysis (e.g., MEGA, PLINK)
- Basic statistical analysis for genetic data
- Data visualization techniques for genetic studies
- Generating reports from genetic analysis results

#### **Laboratory Skills for Genetics**

## Kindly review the fees outlined for the individual protocols listed in this module.

- Effective documentation and lab notebook management
- Safe handling of genetic materials and reagents
- · Contamination control and quality assurance
- Best practices in maintaining lab equipment

# **Individual Protocols Under Genetics Winter Training Program**

- 1. Preparation and handling of samples for sequencing | Fee: Contact for fee
- 2. Introduction to Sanger sequencing and interpretation | Fee: Contact for fee
- 3. Basic troubleshooting for sequencing reactions | Fee: Contact for fee
- 4. Data analysis and base calling for Sanger results | Fee: Contact for fee
- 5. Storage and documentation of sequencing data | Fee: Contact for fee
- 6. Basics of CRISPR-Cas9 system and its applications | Fee: Contact for fee
- 7. Guide RNA design and synthesis for gene targets | Fee: Contact for fee
- 8. Transformation protocols for simple model organisms | Fee: Contact for fee
- 9. Screening and validation of gene edits | Fee: Contact for fee
- 10. Limitations and ethical considerations of CRISPR | Fee: Contact for fee
- 11. Sampling techniques for population genetics studies | Fee: Contact for fee
- 12. Analyzing allele frequency and genetic diversity | Fee: Contact for fee
- 13. Hardy-Weinberg equilibrium and its applications | Fee: Contact for fee
- 14. Genetic drift, selection, and migration models | Fee: Contact for fee
- 15. Case studies in population genetics applications | Fee: Contact for fee
- 16. Introduction to genetic data types and formats | Fee: Contact for fee

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- 17. Using software for genetic analysis (e.g., MEGA, PLINK) | Fee: Contact for fee
- 18. Basic statistical analysis for genetic data | Fee: Contact for fee
- 19. Data visualization techniques for genetic studies | Fee: Contact for fee
- 20. Generating reports from genetic analysis results | Fee: Contact for fee
- 21. Sample preparation and pipetting accuracy | Fee: Contact for fee
- 22. Effective documentation and lab notebook management | Fee: Contact for fee
- 23. Safe handling of genetic materials and reagents | Fee: Contact for fee
- 24. Contamination control and quality assurance | Fee: Contact for fee
- 25. Best practices in maintaining lab equipment | Fee: Contact for fee

#### Please contact on +91-8977624748 for more details

Cant Come to Hyderabad? No Problem, You can do it in Virtual / Online Mode