

# **Genetics Summer Training Program**

The Genetics Summer Training Program provides foundational skills in genetics through practical training in techniques like DNA extraction, PCR, gel electrophoresis, and introductory bioinformatics. It's ideal for students and beginners looking to explore genetics in a short-term, intensive format.

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

#### **DNA Extraction and Analysis**

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

- Quantification and purity assessment using spectrophotometry
- Visualizing DNA quality with agarose gel electrophoresis
- Troubleshooting common DNA extraction issues
- Storage and handling of extracted DNA samples

#### **PCR** and Gel Electrophoresis

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

- Choosing primers and understanding PCR conditions
- Running PCR products on agarose gels for visualization
- Interpretation and analysis of PCR results
- Optimization of PCR protocols for specific targets

### **Basic Bioinformatics for Genetics**

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

- Introduction to BLAST for sequence alignment
- Simple primer design for PCR applications

- Interpreting genetic data with bioinformatics tools
- Case studies in gene annotation and comparison

### **Introduction to Genetic Markers and Applications**

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

- Introduction to RFLP for genetic analysis
- Screening techniques for common genetic markers
- Applications of genetic markers in research
- Lab exercises in genetic marker identification

#### **Introduction to Laboratory Skills**

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

- Maintaining lab notebooks and documentation
- Safety protocols in a genetics lab
- Sterilization and contamination prevention
- Best practices for working in a genetics lab

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

- 1. Hands-on DNA extraction from plant and animal tissues | Fee: Contact for fee
- 2. Quantification and purity assessment using spectrophotometry | Fee: Contact for fee
- 3. Visualizing DNA quality with agarose gel electrophoresis | Fee: Contact for fee
- 4. Troubleshooting common DNA extraction issues | Fee: Contact for fee
- 5. Storage and handling of extracted DNA samples | Fee: Contact for fee
- 6. Setting up PCR reactions for target DNA amplification | Fee: Contact for fee
- 7. Choosing primers and understanding PCR conditions | Fee: Contact for fee
- 8. Running PCR products on agarose gels for visualization | Fee: Contact for fee
- 9. Interpretation and analysis of PCR results | Fee: Contact for fee
- 10. Optimization of PCR protocols for specific targets | Fee: Contact for fee
- 11. Using NCBI and GenBank for sequence retrieval | Fee: Contact for fee
- 12. Introduction to BLAST for sequence alignment | Fee: Contact for fee
- 13. Simple primer design for PCR applications | Fee: Contact for fee
- 14. Interpreting genetic data with bioinformatics tools | Fee: Contact for fee
- 15. Case studies in gene annotation and comparison | Fee: Contact for fee

#### NTHRYS OPC PVT LTD Genetics Summer Training Program

- 16. Basics of SNPs and their role as genetic markers | Fee: Contact for fee
- 17. Introduction to RFLP for genetic analysis | Fee: Contact for fee
- 18. Screening techniques for common genetic markers | Fee: Contact for fee
- 19. Applications of genetic markers in research | Fee: Contact for fee
- 20. Lab exercises in genetic marker identification | Fee: Contact for fee
- 21. Pipetting techniques and sample handling | Fee: Contact for fee
- 22. Maintaining lab notebooks and documentation | Fee: Contact for fee
- 23. Safety protocols in a genetics lab | Fee: Contact for fee
- 24. Sterilization and contamination prevention | Fee: Contact for fee
- 25. Best practices for working in a genetics lab | 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