

**MODULES FOR 1, 3 AND 6 MONTHS TRAINING/SUMMER TRAINING/DISSERTATION PROGRAM IN BIOTECHNOLOGY AT PERD CENTRE**

**One month Training Modules**

<b>Name of the Modules</b>	<b>Molecular Biology</b>	<b>Plant Biotechnology</b>	<b>Cell culture</b>	<b>Microbiology</b>
<b>Techniques covers</b>	<ul style="list-style-type: none"> <li>→ Plasmid Isolation from bacteria</li> <li>→ RE digestion</li> <li>→ PCR primer design</li> <li>→ PCR</li> <li>→ Agarose gel electrophoresis</li> <li>→ Gel documentation</li> <li>→ Gel Analysis</li> </ul>	<ul style="list-style-type: none"> <li>→ Isolation of genomic DNA from plant</li> <li>→ RE digestion</li> <li>→ PCR primer design and PCR</li> <li>→ Agarose gel electrophoresis</li> <li>→ Gel documentation</li> <li>→ Gel Analysis</li> </ul>	<ul style="list-style-type: none"> <li>→ Media preparation</li> <li>→ Maintenance of Cell line (subculture, cell counting, cryo preservation, plating etc)</li> </ul>	<ul style="list-style-type: none"> <li>→ Antimicrobial activity</li> <li>→ Characterization of microorganism</li> <li>→ Plating techniques</li> <li>→ CFU</li> </ul>
<b>Price in INR</b>	6,000	6,000	10,000	4000
<b>Remarks: Price may vary depending upon the cost of consumables. Special discount (20%) will be provided for enrollment of 5 students at the same time</b>				

**Three months Training Modules**

<b>Name of the Modules</b>	<b>Plant tissue culture</b>	<b>Plant Molecular Biology</b>	<b>DNA Barcoding</b>	<b>Cell culture</b>	<b>Molecular Biology</b>
<b>Techniques covers</b>	<ul style="list-style-type: none"> <li>→ Media Preparation</li> <li>→ Micropropagation</li> <li>→ Callus, suspension, root and shoot culture</li> <li>→ Histological analysis</li> </ul>	<ul style="list-style-type: none"> <li>→ Development of plant based molecular markers using AFLP, RFLP, ISSR</li> <li>→ PCR</li> <li>→ Agarose gel electrophoresis</li> <li>→ Data scoring and analysis</li> </ul>	<ul style="list-style-type: none"> <li>→ Identification of ITS region</li> <li>→ Sequencing and analysis</li> <li>→ PCR</li> <li>→ Agarose gel electrophoresis</li> </ul>	<ul style="list-style-type: none"> <li>→ Media preparation</li> <li>→ Maintenance of Cell line (subculture, cryo preservation, plating etc)</li> <li>→ Cytotoxicity assays: MTT assay, Alamar blue assay</li> <li>→ Apoptosis assays using fluorescent dyes</li> <li>→ Drug Uptake</li> </ul>	<ul style="list-style-type: none"> <li>→ Cloning and expression of recombinant protein in E. coli BL 21 (Plasmid isolation, RE, Ligation, PCR, Transformation, Protein purification, PAGE, WB)</li> </ul>
<b>Price in INR</b>	10,000	10,000	10,000	20,000	15,000
<b>Remarks: *Price may vary depending upon the cost of consumables. Special discount (20%) will be provided for enrollment of 5 students at the same time</b>					

**\*Price stated are exclusive of GST**

### Six months Training Modules

Tailor made projects in following areas

- Cell biology/ cell culture
- Plant tissue culture
- Plant Molecular Biology
- Plant Biology
- Molecular Biology/ r- DNA technology
- Microbiology

This includes design of the project, designing of experiments, record keeping and documentation, statistical analysis, data interpretation, report writing, training in manuscript preparation

**Remarks: Price may vary depending upon the cost of consumables. Special discount (20%) will be provided for enrollment of 5 students at the same time. Price stated are exclusive of GST**