

**9. Chromatography Rs. 5000/-**

1. TLC
2. Column Chromatography
3. Ion exchange chromatography
  - Anion exchange chromatography
  - Cation exchange chromatography
4. Gel filtration chromatography
5. Affinity chromatography

**10. Bioinformatics**

**1. Insilico DNA protein sequence analysis techniques (one-day) Rs.3000**

- Primary sequence analysis
- Sequence alignment
- Motif prediction
- Domain prediction
- Secondary structure prediction
- Phylogenetic tree construction

**2. Structural biology (three –days) Rs.5500/-**

- DNA- Protein sequence conversion tools
- Sequence Retrieval System– Protein / DNA
- 3 D structure prediction and Visualization
- 3D structure validation
- 3 Dstructure Comparison studies
- Protein activesite prediction
- Small molecules screening
- ADMET prediction
- Molecular Docking

**3. General Cheminformatics Techniques ( one-day) Rs.5000/-**

- 2 D and 3 D chemical structures
- Calculation of molecular properties
- Chemical compound file formats, visualization, and similarity search
- 3 D compound - Bioactivity studies
- InsilicoToxicitystudies - ADMET

**OTHER ACTIVITIES**

Mini Project  
MSc/ Mphil/ PhD Project  
Workshop / Internship Programme  
Contract Research  
On-site training at client sites



**For Further Details**

**Royal Bio Research Centre**

**No. 30A, 10th Cross Street,  
Dhandeeswaram Nagar,  
Velachery, Chennai - 600 042.**

**Mobile : +919940352236**

**Mail ID : royalbio2012@gmail.com**

**Website : www.royalbiorc.com**

**Applicants have to send the biodata  
along with the registration fee Rs. 500/-**

**The registration fee not refundable**

**Accommodation will be provided on  
first come basis**



**Royal Bio  
Research Centre**



**TRAINING PAMPHLET**

## PROFILE

Royal Bio Research Centre was established in the year 2012 with a team of young scientists and industrial leaders, who have acquired knowledge, expertise and world-class exposure. Our centre provides hands-on Training Programmes, Workshops, Bio-services and Project works for Under Graduates, Post Graduates, and Research Scholars and also provides practical knowledge to school students. The centre is equipped with multiple labs and facilities that match research and industrial standards. Exposure to these facilities and techniques will prepare students to meet the current industrial needs. The centre offers projects and training programmes in the following disciplines.....

### 1. Microbiology **Rs. 5000/-**

1. Media preparation
2. Isolation of microbes from various sources (Bacterial & Fungal)
3. Identification of microbes – morphology & biochemicals
4. Growth curve
5. Antimicrobial activity
6. Isolation & estimation of microbial protein
7. Protein profiling
8. Isolation of DNA
9. Genetic diversity using RAPD

### 2. Molecular biology

#### Module I

**Rs. 5000/-**

1. Isolation of genomic DNA from different sources
2. Agarose gel electrophoresis
3. Protein profiling (SDS PAGE)
4. Plasmid DNA profiling
5. RNA Isolation from yeast
6. PCR
7. RAPD
8. RFLP

### 3. Molecular biology

#### Module II

**Rs. 5000/-**

1. Southern blotting
2. Northern blotting
3. Western blotting
4. Silver staining
5. Native PAGE
6. Gene expression

### 4. Nanotechnology

**Rs. 5000/-**

1. Synthesis of nano particles
2. Spectrophotometer analysis
3. Drug delivery
4. Antimicrobial studies
5. Photocatalytic activity
6. Waste water purification used by nano particles

### 5. Immunotechnology

**Rs.5000/-**

1. Immunoelectrophoresis
2. ODD and SRID Immunoelectrophoresis
3. Rocket Immunoelectrophoresis
4. Counter current Immunoelectrophoresis
5. Lymphocyte separation

### 5. DOT ELISA

### 6. IgG purification

### 6. Enzyme Technology **Rs. 5000/-**

1. Screening of enzyme- plate assays
2. Optimization of enzymes
3. Enzyme production and precipitation
4. Quantification of enzymes
5. Partial purification of enzyme
6. Molecular characterization of enzymes
7. Application of enzymes

### 7. Animal Tissue culture **Rs.5000/-**

1. Media preparation for cell line
2. Subculture & maintenance for cell line
3. Cytotoxicity analysis
4. Anticancer activity - MTT assay
5. DNA Fragmentation
6. Wound healing activity

### 8 Herbal technology **Rs. 5000/-**

1. Extraction of herbal plants by cold & Soxhlet method
2. Phytochemical analysis
3. Antioxidant activity
4. Anti inflammatory activity
5. Antidiabetic activity
6. Antimicrobial activity
7. Detection of bioactive compound using TLC