# Services provided in BSRC

#### Microbiology Laboratory

- 1. Antimicrobial susceptibility tests
- 2. Antibiofilm assay
- 3. Isolation and identification of Bacteria and fungus from various samples
- 4. Assessment of virulance factors
- 5. Antiadhession, time kill assay

## **Analytical Laboratory**

- 1. Method development & validation by UV Spectrophotometry.
- 2. Qualitative & Quantitative studies of herbal Extract /Nanoformulation using chromatographic techniques (HPLC, UPLC, HPTLC)
- 3. Finger Printing Analysis using HPTLC
- 4. Detection of heavy metals (AAS)
- 5. Lyophilization
- 6. Various Extraction process using soxhlet and rotatory evaporator
- In vitro drug release studies & ex-vivo studies using Franz diffusion cell and dissolution Apparatus (nanoformulation)
- 8. Viscosity Analysis
- 9. Probe sonication ,Bath Sonication, PH Meter

## **Molecular Biology Laboratory**

- 1. PCR and RT-PCR Based
- 2. Genotyping
- 3. SNP/SNV analysis
- 4. Pathogen Detection
- 5. Gene Expression Profiling
- 6. Methylation Profiling
- 7. ELISA based
- 8. Biomarker detection and quantification

- 9. Flow Cytometry Based
- 10. Cell Cycle analysis
- 11. Apoptosis analysis
- 12. Lymphocyte quantification
- 13. Stem cell analysis by surface markers
- 14. Estimation of ROS
- 15. Caspase expression profiling
- 16. DNA fragment analysis

#### **<u>Cell Culture Laboratory</u>**

- 1. Proliferation assay MTT Assay
  - Tryphan Blue Assay
  - Crystal Voilet Assay
- 2. Differentiation of cell lines Alizerin Red Assay
- 3. Migration assay for wound healing
- 4. Growth curve assay
- 5. Comet assay
- 6. DNA fragmentation studies on cell line
- 7. Cellular uptake studies
- 8. Isolation of primary cell line
- 9. RNA/DNA isolation from cell lines
- 10. Cell Cycle Analysis
- 11. Apoptosis