BIODEAVOUR

SERVICE CATALOGUE

2025-2026

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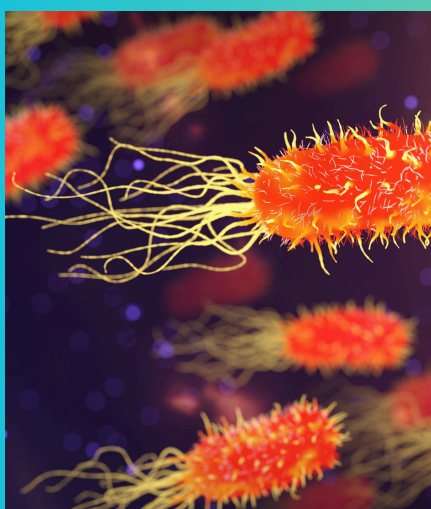support@biodeavour.com

MICROBIOLOGY

IN-VITRO ASSAYS

- Anti-bacterial activity
- Anti-fungal activity
- Antibiotic Susceptibility testing
- Minimum Inhibitory Concentration (MIC) Testing
- Minimum Bactericidal Concentration (MBC) Testing
- Total Plate Count Assay
- Growth Kinetics Study
- Morphology and Biochemical Analysis
- Isolation and Screening Industrial Important bacteria and fungi

ENZYME ASSAYS

- Different enzyme production from bacteria and fungi (Lipase, Amylase, Chitinase, Pectinase, Cellulase, xylanase, phytase)
- Enzymatic activity assay
- Optimization of enzyme production
- Purification of enzyme from bacteria and fungi
- Characterization of purified enzymes

BACTERIOPHAGE ISOLATION

- Isolation of bacteriophage
- Host selection
- Purification of bacteriophage
- FESEM Analysis of purified bacteriophage

NANOTECHNOLOGY

NANOPARTICLE SYNTHESIS

- **Silver**
- **Copper**
- **Gold**
- **Zinc**
- **Titanium**
- **Carbon nanotubes**
- **Mesoporous Silica Nanoparticles**
- **Beta-Cyclodextrin**
- **Chitosan nanoparticles**

CHARACTERIZATION STUDIES

- **UV-VIS Analysis**
- **FT-IR**
- **XRD**
- **FESEM-With and Without EDAX**
- **TEM ANALYSIS**
- **Zeta Potential and Particle Size Analysis**
- **Thermal Gravimetric Analysis (TGA)**
- **Differential Scanning Calorimetric (DSC) Analysis**
- **XPS**
- **Electrospinning**

DRUG LOADING ASSAYS

- **Determination of drug release assay**
- **Determination of encapsulation efficiency**
- **Determination of optimum pH for drug loading**
- **Determination of stability testing**

HERBAL TECHNOLOGY

EXTRACTION OF PHYTOCOMPOUNDS

- **Extraction of flavonoids, saponins, alkaloids, polyphenols**
- **Extraction of phytocompounds from plants by different methods**

1. **Maceration**
2. **Soxhlet Extraction**
3. **Decoction**
4. **Percolation**

QUALITATIVE ANALYSIS

- **Flavonoids**
- **Anthocyanins**
- **Tannins**
- **Steroids**
- **Polyphenols**
- **Saponins**
- **Coumarins**
- **Cardiac glycosides**
- **Quinones**
- **Carbohydrates**
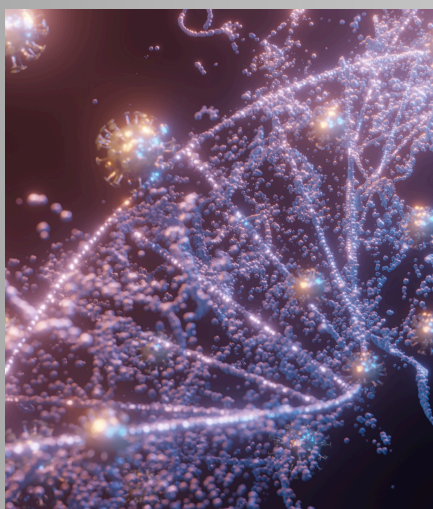- **TLC Analysis**

QUANTITATIVE ANALYSIS

- **Total Flavonoid Content**
- **Total Polyphenol Content**
- **Total alkaloid Content**
- **Total Saponin Content**
- **Total Tannin Content**
- **Total Terpenoid Content**
- **GCMS Analysis**

BIOINFORMATICS

GENOMICS

- **16S rRNA / 18S rRNA / ITS Sequencing and Data Analysis**
- **Whole Genome Sequencing and Data Analysis**
- **Gene Sequencing**
- **Real Time PCR Analysis**
- **Metagenomics and Data Analysis**

PROTEOMICS

- **Whole transcriptomics Sequencing**
- **Whole Exome Sequencing**
- **Differential Gene Expression Analysis**
- **In-Silico Microbial Proteomic Analysis**
- **In-Silico Mutational Analysis**
- **In-Silico Pharmacophore Modelling**
- **Network Pharmacology Analysis**
- **In-Silico Protein Characterization Studies**
- **Metabolomics Studies**

DRUG DISCOVERY

- **Designing of Ligands**
- **Screening of Ligands**
- **ADMET and Drug-likeness Prediction**
- **Protein Structure Prediction and Optimization**
- **Molecular Docking**
- **IC50 Calculation**
- **Protein-Ligand Docked Complex Visualization**
- **MD Simulation for 100 and 200 ns**

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