MSME
MICRO, SMALL & MEDIUM ENTERPRISES
सूक्ष्म, लघु एवं मध्यम उद्यम
OUR STRENGTH • हमारी शक्ति
Ministry of MSME, Govt. of India

CLINBIOCARE TECHNOLOGY

DPIIT

YOU HAVE AN IDEA; WE HAVE A STRATEGY

ZOOLOGY

GENETIC ENGINEERING

BOTANY

BIO-TECHNOLOGY

BIO-CHEMISTRY

MICRO-BIOLOGY

PHYSICS

CHEMISTRY

BIO-INFORMATICS

BIOMEDICAL ENGINEERING

Crafted 4 Curated

FOOD SCIENCES

BIOTECH ENGINEERING

Winter Internships

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High Quality Data Generation and Analysis

Dr. Ananthi Sivagnanam
PhD (Biomedical Sciences-MKU)
PDF (Cancer Biology-IITM)
Founder and CEO
Clinbiocare Technology

Dr. T. Balasankar,
PhD (Plant Proteomics-MSU)
Managing Director
Clinbiocare Technology

Vision

"Advancing research through scientific methodology."

Empowering rural students through biotechnology exposure

Mission

- Collaborating on impactful scientific projects
- Supporting multiomics research and innovation
- Advancing omics through experimental optimization

Our Portfolio

- PhD Guidance
- Hands-On Training
- Internships and Workshops
- Mini & Major Projects
- Scientific Writing
- Research Services

Why CBT?

- **Exclusive Hands-On training**
- **Scientific Communications**
- **Career guidance**
- **Journal Clubs**
- **Intellectual debates**
- **Library Activities**
- **Seminars & Assessments**
- **Sci-fi games**

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Gel-Based Proteomics

- **Different Methods of Protein Extraction**
- **Estimation of Total Protein - Bradford Assay**
- **Separation of Total Protein using SDS-PAGE**
- **Comparative Proteomic Profiling of Different Samples**
- **Identification of Distinct Proteins Having a Significant Fold Change in Expression**

Biomarker studies

- **Biomarkers and Significance**
- **Clinical Samples Processing**
- **Protein Extraction**
- **SDS-PAGE Analysis**
- **Biomarker Profiling using Two-Dimensional Gel Electrophoresis**
- **2D gel Image analysis**
- **Mass Spectrometry**
- **Protein-Protein Interaction Analysis**
- **Validation of Potential Biomarkers - qPCR**

Cancer Genomics

- **Deep Dive into Cancer Genomics**
- **Processing Cancer Cells/ Tissues**
- **RNA Extraction**
- **cDNA Synthesis**
- **mRNA Expression Analysis - qRT-PCR**
- **Interpretation and Analysis of Results**

Microbial Genomics

- **Microbial DNA Isolation**
  - **DNA Extraction**
  - **Agarose Gel Electrophoresis**
  - **Quantification of Extracted DNA**
- **PCR Amplification of Isolated DNA**
  - **RESistance Gene Profiling**
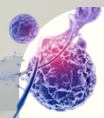 - **VIRulence Gene Profiling**

Western Blotting

- **Introduction to Immunotechniques**
- **Experimental Relevance in Various Applications**
- **Sample Preparation**
- **Gel Electrophoresis & Transfer**
- **Immunodetection - Protein Detection using Antibodies**
- **Image Acquisition**
- **Image Analysis & Result Interpretation**

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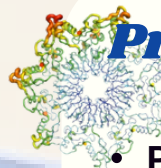
Oncoproteomics

- **Biomedical Significance of Proteomics in Oncology**
- **Cancer Cells/Tissues Processing**
- **Oncoprotein Extraction**
- **Estimation of Total Protein**
- **Differentially Expressed Protein Analysis**
- **Mass Spectrometric Analysis**

Protein Visualization & Image Analysis

- **Protein Extraction from Various Samples & 2DGE**
- **Different Methods of Visualization**
  - **Coomassie Brilliant Blue staining**
  - **Silver Staining**
  - **Cy2, Cy3, Cy5 & Sypro Ruby PTM Staining**
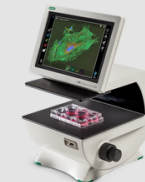 - **ProQ (Emerald, Diamond) Staining**
- **Image Analysis**

Bioinstrumentation

- **2D Electrophoresis Apparatus (GE Healthcare)**
- **RT-PCR (Qiagen)**
- **Gradient PCR (Bio-Rad)**
- **ChemiDoc MP (Bio-Rad)**
- **Fluorescent Cell Imaging System (Bio-Rad)**
- **Trinocular Inverted Microscope**
- **Refrigerated Max Speed Centrifuge (Beckman Coulter)**
- **UV-Vis Spectrophotometer (Jasco)**
- **CO$_2$ Incubator**
- **ELISA Reader**
- **PRO656-Probe Sonicator**
- **Milli-Q-Unit (Merck Millipore)**
- **Biosafety Cabinet (BSL-2)**
- **Deep Freezer (-80˚C)**
- **Shaker Incubator**

Medical Microbiology

- **Understanding the Importance of Clinical Microbiology**
- **Isolation of Microbes from Clinical Samples**
- **Biochemical Characterization of Isolated Individual Isolates**
- **Prevalence of MDR Isolates in Isolated Individuals - Antibiotic Susceptibility**
- **Analysing the Biofilm Forming Ability of isolates**

Phytochemistry

- **Collection of Plant Material**
- **Extraction of Plant Material**
- **Phytochemical Screening**
  - **Saponins**
  - **Tannins**
  - **Flavonoids**
  - **Quinones**
  - **Terpenoids**
  - **Alkaloids**
  - **Phenols**
  - **Reducing Sugar**
  - **Carboxylic Acid**
  - **Amino Acids**

Clinical Proteomics

- Processing of Clinical Samples
- Methods of Protein Extraction
- Protein Separation using Two-Dimensional Gel Electrophoresis
- Protein Interaction Network Analysis
- Analysing the Significance of Proteins in Diagnostics

Cheminformatics

- Two-dimensional and Three-Dimensional Structural Analysis
- Chemical Compounds and Their File Formats
  - Tools to Convert File Formats
- ADMET analysis
  - SWISS ADME
  - PKCSM
  - Pro Tox 3.0

Immunology

- Enzyme Linked Immuno Sorbent Assay (ELISA)
- Serum Proteomic Analysis
- Separation of Serum Proteins
- Proteomic Analysis of Body Fluids
- Identification of Proteins Having Significant Expression Difference

Nanotechnology

- Nanoparticles and Their Significance
- Synthesis of Nanoparticles
- Characterization of Synthesized Silver Nanoparticles
  - UV-Vis Characterization
- Analyzing the Antimicrobial Potential of Synthesized Nanoparticles
- Evaluating their Potential in Dye Degradation

Medicinal Chemistry

- Collection of Medicinal Plants
- Primary Steps in Extraction
- Extraction using Different Methods
  - Decoction
  - Hot infusion
- Standard Procedure-Magnetic Stirring
- Analyzing the Presence of Bioactive Compounds - Phytochemical Screening
- Evaluating the Antioxidant Potential of the Medicinal Plant - DPPH Quantitative Assay

Herbal Technology

- Collection of Herbs & Extraction
  - Decoction
  - Hot Infusion
  - Standard Procedure - Magnetic Stirring
- Screening Phytocompounds
- DPPH Quantitative Assay
- Antimicrobial Activity of Herbal Extract Against Pathogenic Strains
- Determination of MIC
- Antibiofilm Activity of the Extract

Bioinformatics

- Introduction to Bioinformatics
- Databases & Learning environments
  - Basic to Advanced
- Phylogenetic Tree Construction
- Protein Interaction Analysis

Plant Proteomics

- Plant Proteomics & Necessity
- Ammonium Acetate Precipitation of Plant Proteins
- Quantification of Plant Proteins using UV-VIS Spectrometer
- Initial Screening of Protein Separation
- Global Proteomic Analysis
- Identification of Differentially Expressed Proteins

Natural Chemistry & Computational Biology
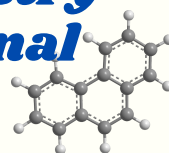
- Extraction of Phytocompounds from Medicinal Plants
- Screening Phytochemical Property of the Plant
- Surfing Potent Compounds using Databases
- *In Silico* Docking Studies
- Protein-Ligand Interaction Visualization - Biovia Discovery Studios

Molecular Docking
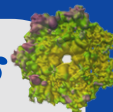
- Exploring Targets and Ligands using Databases
- ADMET Analysis - SWISS ADME, Pro Tox 3.0
- Molecular Docking using Autodock
- Visualization using Biovia Discovery Studio
- Validation of *In Silico* Studies

Environmental Microbiology

- Collection of Different Environmental Samples
- Isolation of Microbes from Different Samples
- Analyzing the Prevalence of Resistant Genes Among the Isolates
  - DNA Extraction
  - Agarose Gel Electrophoresis
  - PCR Amplification of Resistant Genes
  - Result Interpretation
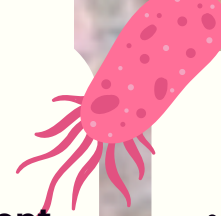
Food Microbiology

- Collection of Samples from Contaminated Foods
- Isolation of Pathogenic Strains
  - Biochemical Characterization
  - Identification of Isolates
- Screening a Potent Antimicrobial Component Against the Isolated Pathogenic Strains

Profiling Multi Drug Resistant Strains

- Isolation of Microbes from Clinical Samples
- Screening MDR isolates - Antibiotic Susceptibility
- Prevalence of Resistance among Different Isolates
  - DNA Extraction
  - Agarose Gel Electrophoresis
  - Screening the Existence of Resistant Genes - PCR Amplification
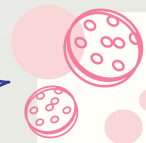 - Amplified Product Detection

Bioremediation

- Isolation of Microbes from Different Environmental Samples
- Characterization of Isolates Using Biochemical Assays
- Analysing Their Potential in Dye Degradation
- Optimization of Isolates in their Dye-Degradative Ability
- Identification of Isolates Having Dye Degrading Ability

Screening Probiotics

- Introduction to Probiotics
- Collection of Different Probiotic Sources
- Isolation of Probiotics
- Biochemical Characterization
- Evaluating the Antimicrobial Potential of Isolated Probiotic Strains
  - Preparation of Cell-Free Supernatant
  - Analyzing the Antimicrobial Potential - Agar Well Diffusion Assay

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Microbial Proteomics

- **Microbial Sample Processing**
  - Protein Extraction from Microbial Samples
- **Bradford Assay - Quantification of Total Protein**
- **Advanced Proteomic Analysis of Bacterial Strains**
  - SDS PAGE Analysis
  - 2D Gel Electrophoresis (2DGE)
  - Analysing the Differentially Expressed Protein Spots using Melanie Software

Interdisciplinary Domains

- **Prediction to Validation**
- **Antigen-Antibody Interaction (ELISA)**
- **Molecular Docking to Antimicrobial Activity**
- **Phytocompound Extraction & Phytochemistry**
- **Proteogenomics Studies**
- **Nature's Cure - Phytochemistry & Antimicrobial Activity**
- **Molecular Biology Techniques**
- **Biomarker Validation Analysis using ELISA & qRT-PCR**

"We are not just service provider rather your supporting hands to overcome all your hurdles in scientific experiments and troubleshooting"

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"One Stop solution for All Your Biotechnology Needs !!!"

Our Collaborators!!!

Food & Accomodation Available

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▶️ **CLINBIOCARETECHNOLOGY**

2016

21+ Years of Experience

250+ Completed Projects

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2025

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