

Veridian Micro Lab Pvt Ltd

An Explorer of Microbial World

Research & Development Centre In Life Science

Our Services available in **Microbiology, Molecular Biology, Plant Biotechnology, Industrial Biotechnology, Nano Medicine, Phytochemistry, Bioinformatics, Herbal Technology,**

Microbial Analysis

- ❖ Bacteria isolation from different sample sources
- ❖ Fungi isolation from different sample sources
- ❖ Endophytes isolation (Actinomycetes, bacteria and fungi)
- ❖ Staining – all types
- ❖ Secondary metabolites production and profiling
- ❖ 16S rRNA sequencing
- ❖ 18S rRNA / ITS Region sequencing
- ❖ Biochemical characterization
- ❖ Fatty acids methyl esters (FAMES) profiling

Bioinformatics Studies

- ❖ BLAST Analysis
- ❖ NCBI GenBank sequence submission
- ❖ Phylogeny tree construction
- ❖ MEGA, Clustal W
- ❖ PubMed literature survey report
- ❖ Protein Protein Interaction
- ❖ Protein modelling and function prediction
- ❖ Target prediction for test compounds
- ❖ Molecular docking
- ❖ 3D Visualization of docked protein-ligand file analysis (H-Bond interaction, pi-pi bond, hydrophobic interaction analysis)
- ❖ ADMET Prediction
- ❖ Toxic Prediction Analysis

Nano Cellulose Production

- ❖ Extraction of Cellulose Fiber
- ❖ Encapsulation of Cellulose Fiber with metals
- ❖ Formulation of Nano sponge
- ❖ Development of bioplastic

Molecular biology analysis / Techniques

- ❖ Gene specific PCR
- ❖ Genomic DNA isolation from bacteria/fungi/plants/cell lines/animal tissues/blood
- ❖ Plasmid isolation and purification
- ❖ Total RNA isolation
- ❖ RT-PCR Gene expression study with data interpretation
- ❖ Agarose Gel Electrophoresis
- ❖ SDS - PAGE
- ❖ Protein extraction and purification
- ❖ Western blotting
- ❖ Sanger sequencing (upto 1000 bp)
- ❖ NGS - Genomic data analysis, Functional insights and pathways

Phytochemical Assay

- ❖ Qualitative screening for 8 parameters in phytochemistry
- ❖ Total Phenol, Glycoside content, Alkaloids content, Flavonoids content, Saponin content, Terpenoids content
- ❖ Steroid content, Tannin content, Total chlorophyll content
- ❖ Soxhlet extraction – 100 g
- ❖ Ash content-Acid insoluble Ash content, Water insoluble Ash content
- ❖ Moisture content
- ❖ Foaming index
- ❖ Swelling index

Toxicology & Disease Model

- ❖ **Acute & chronic toxicity analysis**
- ❖ **Analysis of apoptosis**
DAPI, PI & Annexin V
- ❖ **Gene expression**
- ❖ **Antioxidant assay: CAT; SOD; ALT**
- ❖ **Histopathology**

Alzheimer's, Parkinson Hypertension, Diabetes, Liver cirrhosis, Cancer models, Infection models, Wound model, Cardiomyopathy, Inflammation Hyperlipidemia, Obesity .

We Offer

- ✓ Final Year Projects with Thesis and Publication guidance for M.Sc., B. Tech, M. Tech, B.Pharm, M.Pharm
- ✓ Customized Trainings, Workshops, Internships (7 days, 15 days and 30 days) in all Microbiology, Molecular Biology, Plant Biotechnology, Industrial Biotechnology, Nano Medicine, Phytochemistry, Bioinformatics, Herbal Technology
- ✓ Ph.D. Research Works, Thesis and Publication guidance
- ✓ Patent Filing, Collaborative Research, Contract Based Research

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Nanotechnology

- ❖ Synthesis of nano particles
- ❖ Spectrophotometer analysis
- ❖ Drug delivery
- ❖ Antimicrobial studies
- ❖ Photocatalytic activity
- ❖ Waste water purification used by nano particles

Enzyme Technology

- ❖ Screening of enzyme- plate assays
- ❖ Optimization of enzymes
- ❖ Enzyme production and precipitation
- ❖ Quantification of enzymes
- ❖ Partial purification of enzyme
- ❖ Molecular characterization of enzymes

Analytical instrumental analysis

- ❖ Gas Chromatography –Mass Spectrum
- ❖ Gas Chromatography -FID
- ❖ Gas Chromatography -TCD
- ❖ LCMS
- ❖ HPLC
- ❖ HPTLC
- ❖ FT-IR
- ❖ Scanning Electron Microscope
- ❖ Transmission Electron Microscope
- ❖ XRD
- ❖ Thin Layer Chromatography
- ❖ Column chromatography
- ❖ UV-Vis spectrophotometer
- ❖ ¹H-NMR, ¹³C-NMR, 2D-NMR
- ❖ AAS
- ❖ AFM

In-Vitro assays

- ❖ Antibacterial activity – Well Diffusion & Disc assay
- ❖ Antifungal activity
- ❖ Minimum inhibitory concentration analysis
- ❖ Time kill kinetic studies
- ❖ Cytotoxicity assay, MTT Assay
- ❖ Anti-diabetic cell line assay (Alpha-amylase inhibition assay, Alpha-glucosidase inhibition assay, Yeast glucose uptake inhibition assay, Hemoglobin glycosylation assay)
- ❖ Anti-inflammatory assay - Nitric oxide scavenging assay, Protein denaturation assay, Hydrogen per oxide scavenging assay
- ❖ Anti-oxidant assay (DPPH, ABTS, FRAP, Hydrogen per oxide, FTC, TBA, Catalase inhibition, Hydroxyl radical, Xanthine oxidase)
- ❖ Hemolysis assay
- ❖ Enzyme inhibition assay (Acetylcholinesterase, Tyrosinase, Lipase)
- ❖ AMES test

Food Microbiology

- ❖ Enumeration of microbial load of different Fruit Juices / Dairy Products
- ❖ Enteric Micro Organism Analysis – MPN Test
- ❖ Preparation of probiotic fruit beverage
- ❖ Physio-chemical analysis of probiotics health drink
- ❖ Characterization of probiotics bacteria

Publication and Writing services

- ❖ Protocol Writing
- ❖ Thesis and Manuscript Writing
- ❖ Literature Review
- ❖ Statical Analysis
- ❖ Publication Assistance
- ❖ Poster presentation
- ❖ Power point presentation

Our Analytical services

FTIR, GCMS, LCMS, ¹H-NMR, ¹³C-NMR, 2D-NMR, SEM, TEM, Column, Gel, Ion -exchange Chromatography, 16S rRNA & 18S rRNA sequencing , Drug Discovery, ChemSketch & ADMET Prediction, Toxicity studies in Zebra Fish, Cytotoxicity assay, Anti-oxidant assay

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Diagnostic Research

Biochemical Analysis

- ❖ Glucose
- ❖ Serum Lipid Profile – Triglyceride
- ❖ Serum Lipid Profile-Cholesterol
- ❖ Serum Lipid Profile - LDL
- ❖ Serum Lipid Profile -HDL
- ❖ Insulin (ELISA)
- ❖ Creatinine
- ❖ Urea
- ❖ SOD
- ❖ Catalase
- ❖ Leptin
- ❖ Adeponectin
- ❖ Non- essential FA
- ❖ C Reactive protein
- ❖ Ca, Na, K
- ❖ SGPT, SGOT,ALP
- ❖ Total protein, Albumin, Globulin
- ❖ Gamma GT
- ❖ Bilirubin
- ❖ HbA1c
- ❖ Triiodothyronine (T3)
- ❖ Thyroxine (T4)
- ❖ TSH
- ❖ Thyroxine, Free (F4)
- ❖ Triiodothyronine ,Free (FT3)

Identification

- ❖ **Fertility Markers** - FSH , hCG ,LH , Ptolactin, AMH
- ❖ **Steroid Markers** - Androstenedione , Cortisol ,Corisol SALIVA , DHEA-S ,Estradiol , Estriol, Free Progesterone , 17 (OH) Progesterone , Testosterone ,Testosterone,Free
- ❖ **Diabetes Markers** - C-Peptide , Insulin
- ❖ **Cardiac Markers - Troponin -I**
- ❖ **Allergy Markers** – Ig E
- ❖ **Anemia Markers** – Ferritin, FOLATE, Vitamin B12, 25 (OH), Vitamin D, 25 (OH) Vitamin D - Vitamin B12
- ❖ **Growth Markers** - Growth Hormone
- ❖ **Bone Metabolism Markers** - PTH
- ❖ **Inflammatory Markers** - C-Reactive Protein
- ❖ **Cancer Markers** - Beta2 Micro globulin , AFP , CA 15-3 ,CA 19- 9 , CA-125 , CEA , Free Beta HCG, FREE PSA, HE4, PSA
- ❖ **NEONATEL SCREENING** - Neonatal TSH ,Neonatal 17(OH) Progesterone , Neonatal MSUD , NEONATEL G6PD, Neonatal PKU, Neonatal Galactose

Autoimmune Disorders - ANA Screen IgG , Cardioliipin Ig A, Cardioliipin IgG , Cardioliipin Ig M , Cardioliipin Total ab , dsDNA IgG , Mitochondrial (MA) AB , RNP/Sm IgG , Scl - 70 , Sm IgM , SSA IgG , SSB IgG , Thyrogulonulin Ab (TG) , Thyroid Peroxidase

Infectious Disease - *Brucella* IgG, IgM , *Chlamydia pneumonia* IgA, IgG, IgM , *Chlamydia trachomatis* IgA, IgG, IgM, CMV IgG EKISA , IgM EKISA, Dengue Virus CAPTURE IgG , IgM , EBV-VCA IgA, IgG, IgM, *H.Pylori* IgA, IgG, IgM, HSV-1 IgG, IgM, HSV-2 IgG, IgM, HSV-1+2 IgG, IgM, Measles IgG, IgM, Mumps IgG, IgM, *Mycoplasma* IgG, IgM, *Rubella* IgG, IgM, *Salmonella* IgG, IgM, *Toxoplasma* IgA, IgG, IgM, *Treponima pallidum* IgG , VZV IgG, IgM , ZIKA VIRUS IGG, IGM

CONTACT US

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