

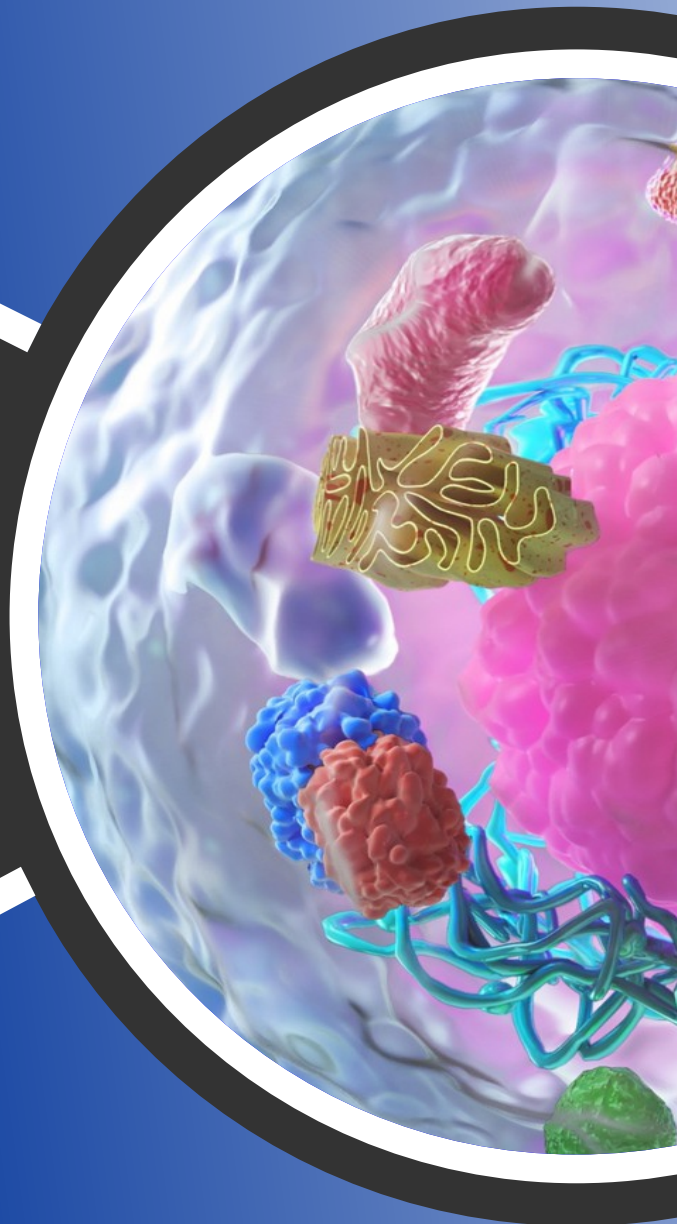


STELLIXIR
WHERE INNOVATION MEETS QUALITY

CUSTOMISED CELL BASED DISEASE MODELLING FOR EARLY DRUG DISCOVERY

OUR CORE SERVICES

- Flow Cytometry Based Marker Studies
- Anti-Cancer Studies
- Stem Cell Based Studies
- 3D Cell Culture Model Based Drug Screening
- Exosomes Based Research Services
- Anti-Inflammatory Assays
- Gene Sequencing Services
- In Vitro Toxicology Studies
- In Vitro ADME Assays



CUSTOMIZED IN VITRO DISEASE MODELLING FOR EARLY DRUG DISCOVERY

Stellixir Biotech is known to develop mammalian cell based disease models that best suit your R&D needs. Cell based assays and cell-based screening are of key importance at a number of stages in the drug discovery process. We work on simultaneous visualization and prominently feature real monitoring to identify the toxicity responses. We have developed and screened compounds using cell-based assays for over a decade.



Our knowledge and skills in cell culture, combined with our expertise in developing cell-based assays allow us to work rapidly and efficiently on the prosecution of your target by using appropriate screening methods.

TYPES OF THE COMPOUNDS WE UNDERTAKE



Stellixir Biotech make use of Herbal extracts, synthetic chemicals, nanomaterials, metals of biomedical devices, Exosomes, small and Large molecules etc. as per the requirement of the client.

SERVICES OFFERED



We provide various bioassays platforms to facilitate research in various fields like oncology, metabolic disorders, neurodegenerative and cardiovascular diseases by using 2D and 3D *in vitro* models. We offer high-throughput drug screening services by using flow cytometry, confocal microscopy, RTqPCR and NGS and NGS for the following diseases.

Our High Throughput Screening methods: Flow cytometry, Confocal/Fluorescence imaging, RTqPCR, Western blot, Next Generation Sequencing, Fluorimetric/Colorimetric/Chemiluminescence etc.

ONCOLOGY

Anti cancer, apoptosis signalling pathway markers studies

Discovery Services

Cytotoxicity & Proliferation Assays

- MTT assay, SRB assay, ATP assay, LDH assay,
- Cell cycle, Ki67 assay, Clonogenic assay

Apoptosis and DNA Damage studies

- Annexin V/PI assay Ao/EtBr assay
- p53 assay Caspases assay p21 assay
- Comet assay MMP - JC1 assay ROS analysis
- Cyt-C assay Cell cycle arrest NO analysis TUNEL assay

Angiogenesis and Metastasis Assays

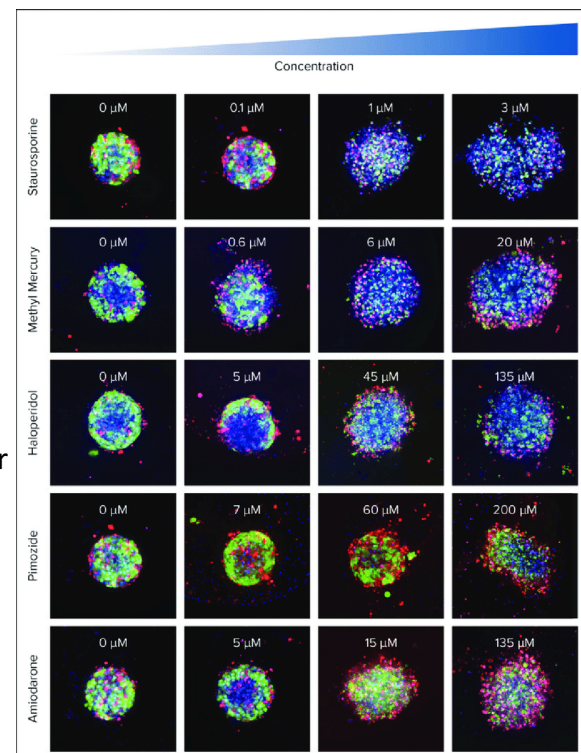
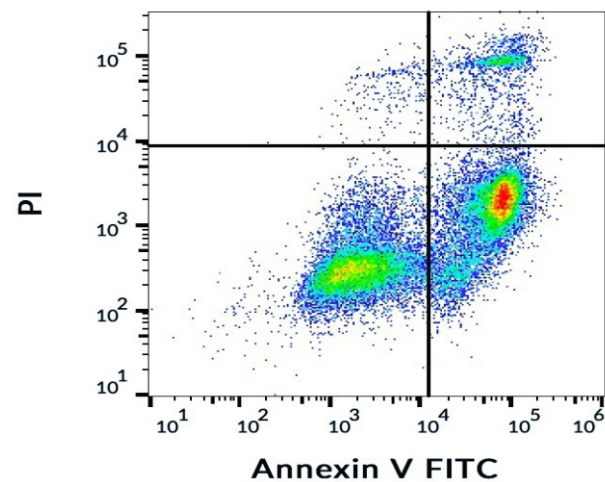
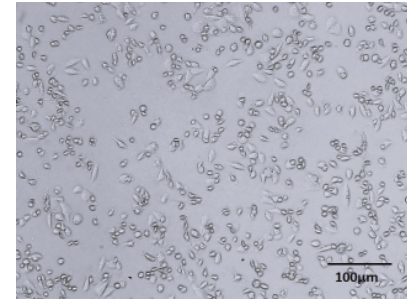
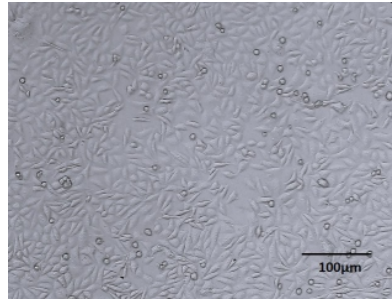
- Cell migration assays
- Scratch assay
- Tube formation assay
- Angiogenesis signaling pathways (HIF1 α , TGF- β , VEGF, SMAD, p38, Pi3)

Cancer Signalling Pathway marker studies

- C-Jun test cAMP assay HIF-1 alpha assay STAT 1,2,3,& 6 assay
- Phospho-mTOR assay Phosphor-Akt (p-Akt) assay
- P53 expression Phosphor-ERK assay Ca²⁺ assay
- NF-kappa B/p65 Phosphor-CREB assay EGFR assay
- Akt assay P38 activity assay

Available Models

- Monolayer and 3D cultures using tumor cell lines and primary tumor cells. Ex: MCF7, HELA, HCT116, JURKAT, HEPG2 and many more
- Co-Culture with endothelial cells
- Tri-Culture with stromal and endothelial cells
- Tri-Culture with stromal, endothelial, and immune cells
- Hypoxic models
- 3D Organoids of single and co-cultured cells

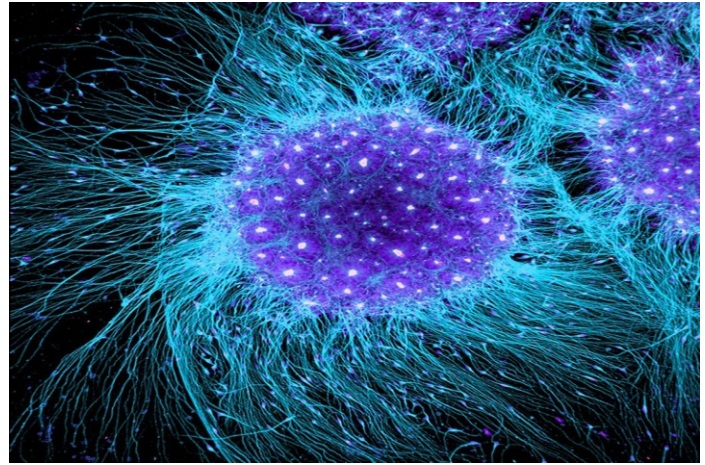


CARDIOVASCULAR DISEASE

Hypertrophic cardiomyopathy, Myocardial Infarction, Cardioprotective research.

Discovery Services

- Cardioprotective studies
- Hypertrophic cardiomyopathy related studies
- Myocardial Infarction based studies
- Atrial fibrillation(AF) (cardiac arrhythmia) based studies
- hERG : Patch-clamp assay
- hERG serum shift assay
- Ion channel trafficking assay
- Action potential duration(ADP) assays
- Cardiac marker detection Troponin I, II
- Integrated human cardiomyocyte assays
- Hit Identification
- High Content Imaging- Analyse drug interaction at the sub-cellular level



Available Models

- Human Primary cell-based assays- Using 2D and 3D disease-relevant models.
- High Content Screening- Using standard cell model and disease-related cell lines.
- 3D model
- 3D microtissue Human Mesenchymal stem cell-derived cardiomyocytes (iPSC-CM's)
- Spheroids- Induced pluripotent stem cell (iPSC) derived cardiomyocytes
- Cardiac endothelial cells
- Cardiac fibroblasts
- Heart-on-Chip 2D model
- Human iPS cell-derived cardiomyocytes
- hERG stably transfected HEK293 cells
- Induced pluripotent stem cell (iPSC) derived cardiomyocytes

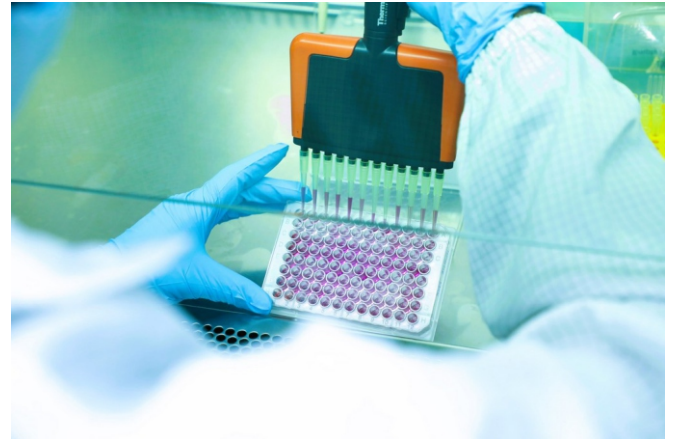


IMMUNOLOGY

In-vitro Immunology assays for drug screening, predictive immunotoxicology studies

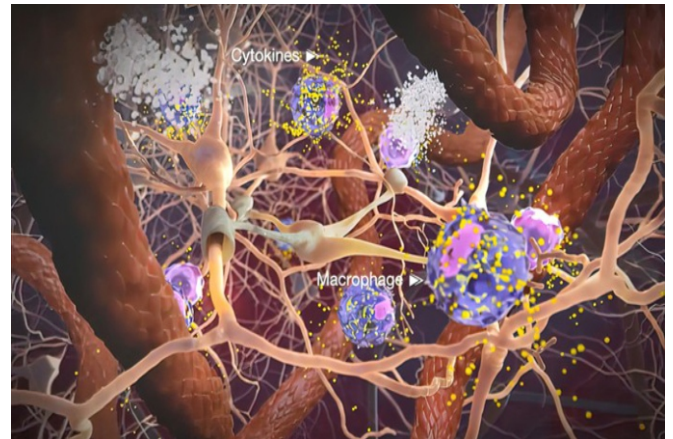
Discovery Services

- Fibroblast-like Synoviocyte Activation Assay
- Chemotaxis Assay: Monocytes
- Chemotaxis Assay: Neutrophils
- Conventional Dendritic Cells Activation Assay
- Plasmacytoid Dendritic Cells Activation Assay
- Anti-inflammatory assays
- Immunomodulatory assays
- Efficacy studies for Monoclonal Antibody:
 - a. Antibody-dependent Cellular Cytotoxicity (ADCC)
 - b. Complement-dependent Cytotoxicity (CDC)
 - c. Antibody-dependent Cellular Phagocytosis (ADCP)



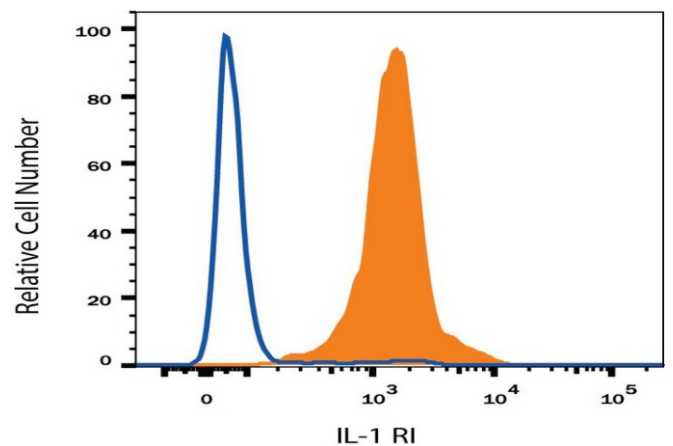
Available Models

- THP1 cell lines
- Human and rodent Peripheral Blood Mononuclear cells
- Human NK cells
- Human DC cells
- Human T and B lymphocytes
- Human and rodent T cells
- Human and rodent Neutrophils
- Human and rodent Dendritic Cells
- Human and rodent Macrophages



Clinical Immunology Assays

- Flow cytometry for PK/PD
- Flow cytometry for CD marker analysis of immune cells
- ELISpot, to evaluate cellular immune response
- Multiplex cytokine analysis

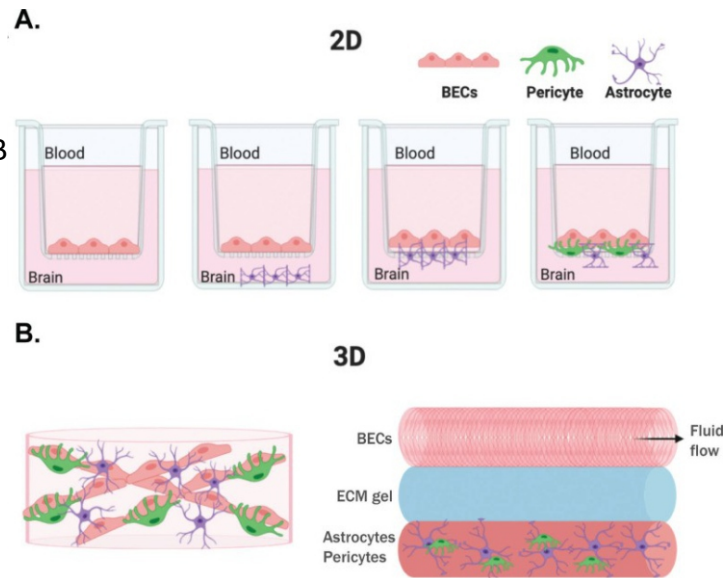


NEURONAL DISORDERS

Blood Brain Barrier studies, Alzheimer's, Parkinson's Disease, Neuroinflammation etc.

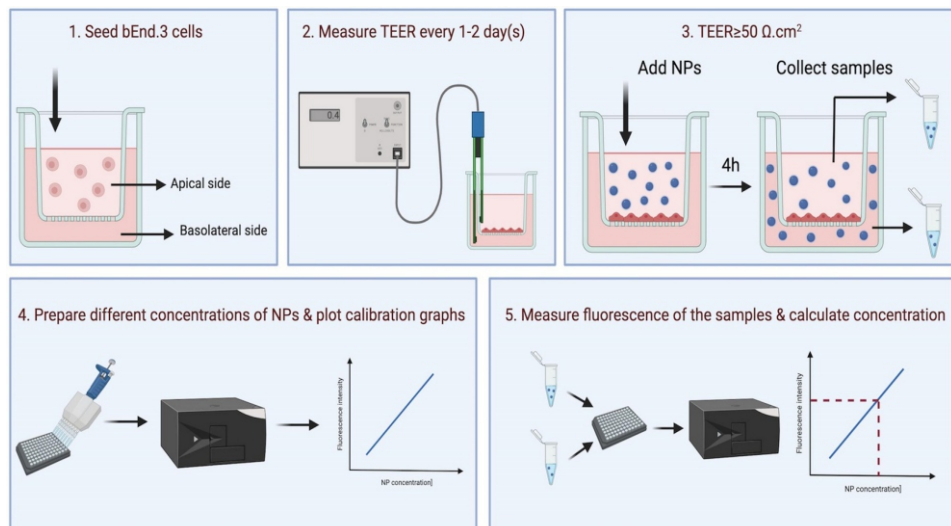
Discovery Services

- Real-time drug permeability across the BBB.
- Neurotoxicity on the cells of the BBB.
- Evaluate drugs that have a protective effect on the BBB
- Investigate the effects of tumor cells on the BBB
- Evaluate inflammatory effects on the BBB
- Toxic A β 1-42 peptide exposure
- LDH release measurement
- NeuN cell viability assay
- Alpha-synuclein Aggregation Quantification
- Neuronal Mitophagy Assays (Tom20 Loss Quantification)
- Cytoprotective assays
- Neuronal differentiation assays



Available Models

- BBB: Co-Culture with brain endothelial cells and astrocytes
- BBB: Tri-Culture with brain endothelial cells, astrocytes, and pericytes
- Alzheimer's and Parkinson's Disease models
- Human ReNcell VM and SH-SY5Y cell lines with dopaminergic features
- Rodent and human astroglial & microglial cell cultures
- Human iPSCs derived brain cells
- Human NSCs
- 3D Organoids of neuronal cell lines
- iPSC-derived astrocytes/ neurons

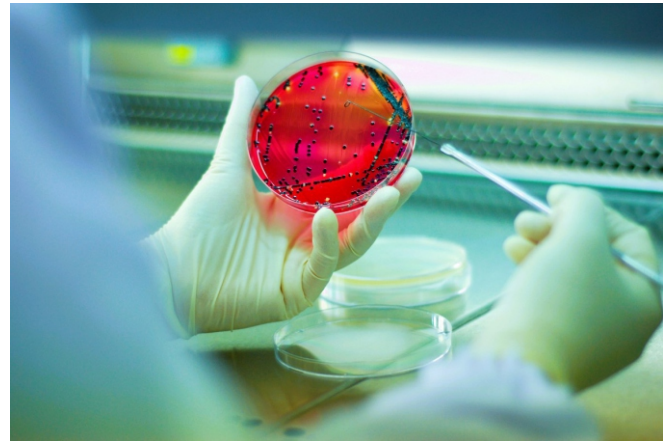


Our High Throughput Screening methods: Flow cytometry, Confocal/Fluorescence imaging, RTqPCR, Western blot, Next Generation Sequencing, Fluorimetric/Colorimetric/Chemiluminescence etc.

Discovery Services

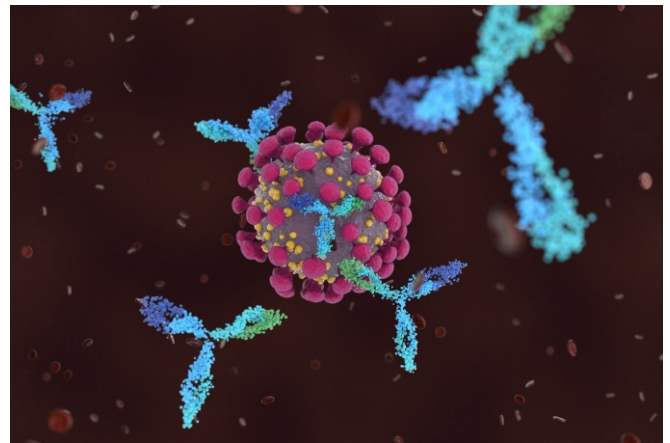
Antimicrobial in vitro bacterial assays include

- MIC assays (minimum inhibitory concentration)
- MBC assays (minimum bactericidal concentration)
- Time-kill assays
- In vitro pharmacokinetic and pharmacodynamics assays
- Resistance testing
- Cell-based assay (internalization and killing and biofilm assays)
- Immune modulation assays (ELISA, Luminex, and FACS)
- Metagenomics



In vitro Antiviral assays

- COVID-19 protease inhibition assay
- TCID50 assay
- EC50/CC50 assay
- Plaque assays
- HAI assays (hemagglutination inhibition)
- Metagenomics



Available Models

- Bacteria, including Gram positives and Gram-negatives covering ESKAPE pathogens
- Fungi including Candida, Aspergilli, and others
- Viruses including Respiratory Syncytial Virus (RSV)
- Parasites, including Toxoplasmosis gondii.

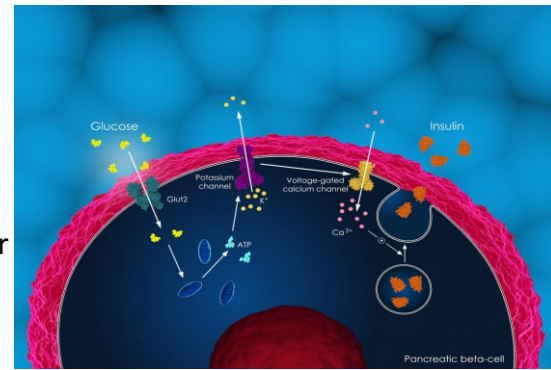
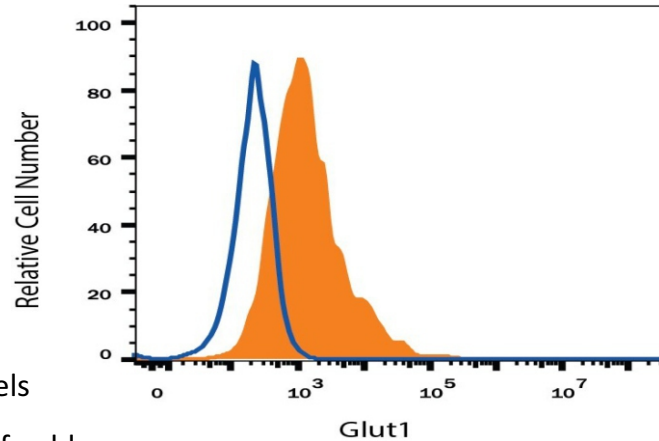


METABOLIC DISORDERS

Diabetic complications such as kidney disease, NASH, obesity, hypertension, thyroid, cholesterol & lipid disorders, bone disease

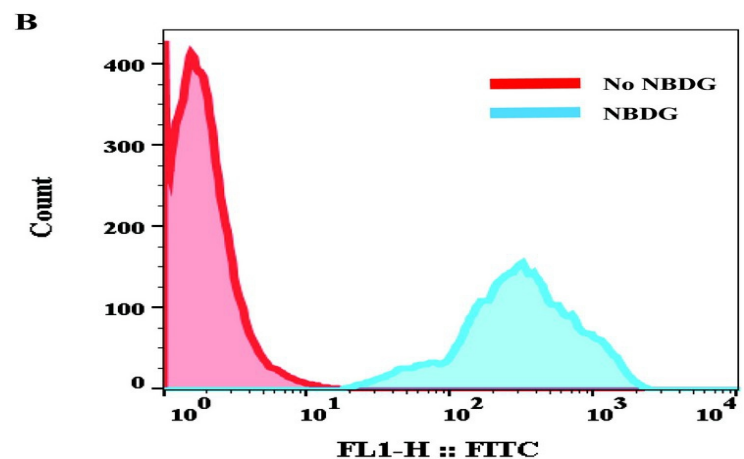
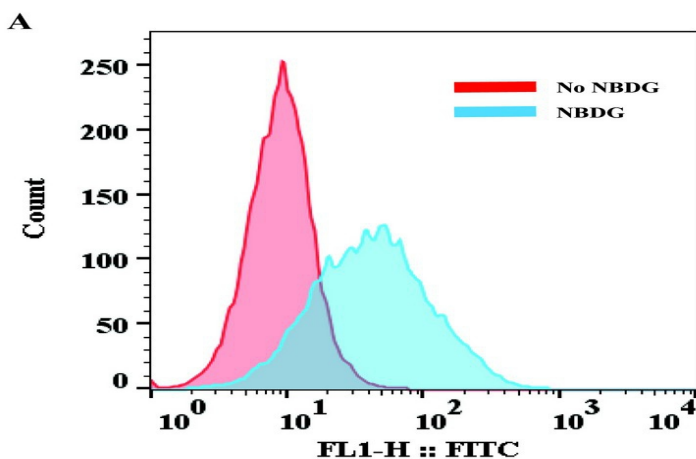
Discovery Services

- Cell proliferation studies
- Glucose uptake assay
- Alpha-amylase inhibition assay
- Alpha-glucosidase inhibition assay
- Insulin receptor binding studies
- IGF-R1 receptor binding studies
- Skeletal muscle regeneration assays using stem cells models
- Assays monitoring the protection of human podocytes or freshly isolated glomeruli
- Assays measuring anti-fibrotic effects across different primary cell types
- A comprehensive set of primary islet cell assays covering all relevant aspects of pancreatic beta-cell turnover and function
- Protection/reversal of metabolic stress-induced beta-cell de-differentiation
- Cell-specific primary rat and human beta cell replication (plated or intact islets)
- Cell-specific quantification of beta-cell apoptosis in plated islets
- Insulin secretion studies with rat and human islets



Available Models

- 2D and 3D models of Human/Rat/Mouse cell lines: PANC1, RIN, MIN, SAOS2, HepG2.
- Stem cell models by using MSCs, and iPSCs
- Primary hepatocytes



Our High Throughput Screening methods: Flow cytometry, Confocal/Fluorescence imaging, RTqPCR, Western blot, Next Generation Sequencing, Fluorimetric/Colorimetric/Chemiluminescence etc.

LIVER DISEASES

Non-Alcoholic Fatty Liver Disease (NAFLD) And Non-Alcoholic Steatohepatitis (NASH)

Discovery Services

- Establishing NASH conditions by elevated glucose and fructose levels, free fatty acids and lipopolysaccharide, and LPS treatment.
- Cytotoxicity assays
- Cytokines analysis: IL-6, TNF α , MIP-1 α (CCL3), MCP-1, IP-10 (CXCL10), IL-8 (CXCL8)
- Expression of profibrotic markers
- Apoptosis marker studies
- Oxidative stress marker studies
- Mitochondrial dysfunction studies
- Cellular lipids and phospholipids estimation by LipidTox staining

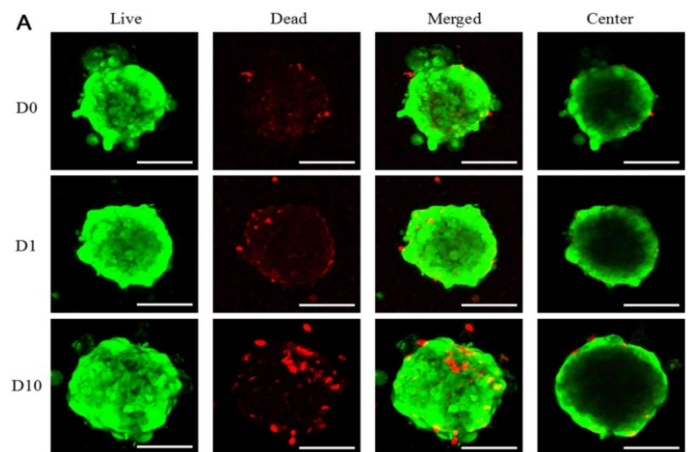
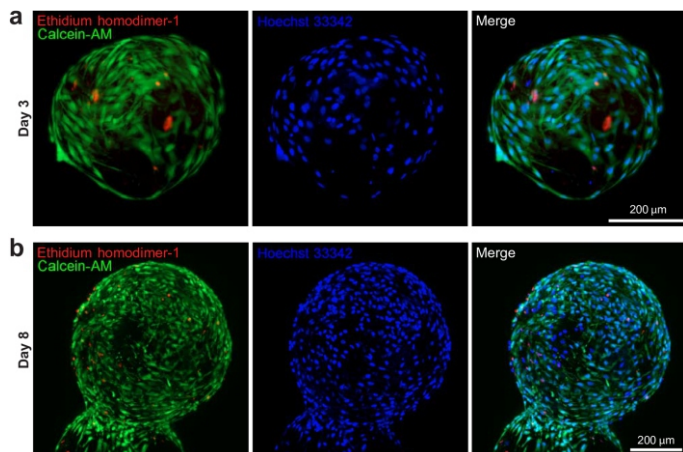
Available Models

In Vitro Hepatotoxicity Testing Models

- 2D Cell Based Models: Various 2D culture models including HepG2 cell line, human primary hepatocytes and iPSC-derived hepatocytes for investigation of potential adverse hepatotoxicity.
- 3D Hepatotoxicity Screening Models: 3D cell culture models derived from hepatocytes of several different species.

Non-Alcoholic Fatty Liver Disease (NAFLD) And Non-Alcoholic Steatohepatitis (NASH)

- Human liver microtissues contain primary human hepatocytes (PHHs), liver endothelial cells (LECs), Kupffer cells (KCs) and hepatic stellate cells (HSCs) at a physiologically relevant ratios
- 2D and 3D cultures of HepG2, HuH 7, and HepaRG cells
- 3D Hepatospheres of human iPSCs



COLON DISEASES

Inflammatory bowel disease (IBD)/CROHN'S

Discovery Services

- Cytotoxicity and proliferation assays
- Pro and anti-inflammatory marker studies
- Gut microbiome analysis by NGS
- Host–microbiome interactions and pathways
- Measurement of ALP, ZO-1, MMP2, MMP9, MUC2, MUC5AC, and ADAMTS1

Available Models

- Human colon cell lines: CaCO2, HCT116, HT-29 etc.
- Co culture of CaCO2 and HT29-MTX cells
- 3D organoids of intestinal epithelial, enteroendocrine goblet cells and immune cells

Respiratory disease:

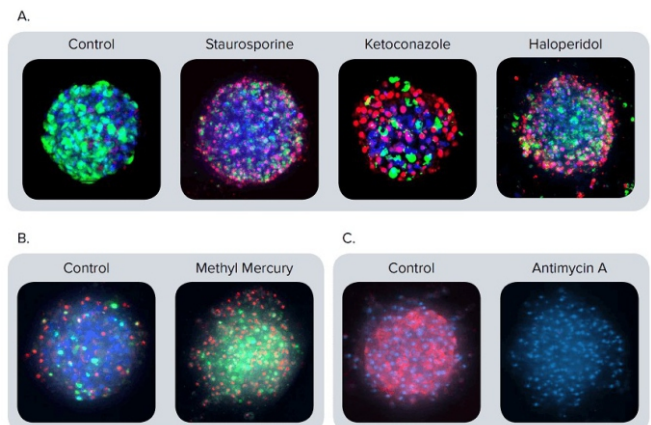
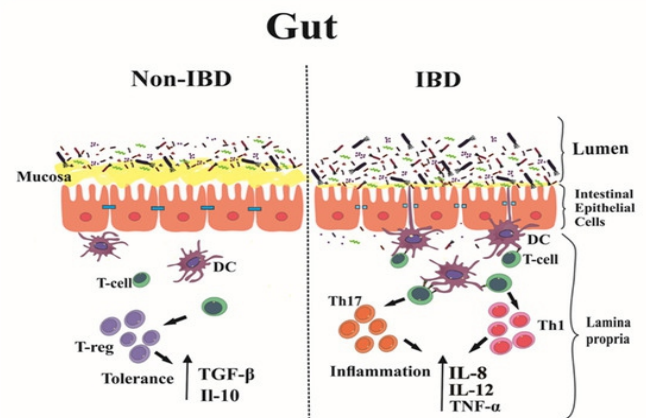
Lung toxicity, viral infection and inflammation

Discovery Services

- Human Primary cell-based assays- Using 2D and 3D disease-relevant models
- High Content Screening- Using standard cell model and disease-related cell lines.
- Inhalation toxicity test
- Anti-viral studies
- In-vitro 3D respiratory models- for drug testing, inhalation toxicity, viral infections and inflammation studies
- 3D mucociliary tissue model – human-derived nasal/bronchial epithelial cells
- The 3D model derived from basal cells, goblet cells and ciliated cells

Available Models

- Monoculture using primary epithelial cells
- Co-Culture with endothelial cells
- Tri-culture with fibroblasts
- In-vitro 3D respiratory models-
- 3D mucociliary tissue model – human-derived nasal/bronchial epithelial cells
- The 3D model derived from basal cells, goblet cells and ciliated cells



STEM CELLS RESEARCH FOR DEGENERATIVE DISEASES

Isolation, CD markers analysis, 3D organoid based differentiation studies.

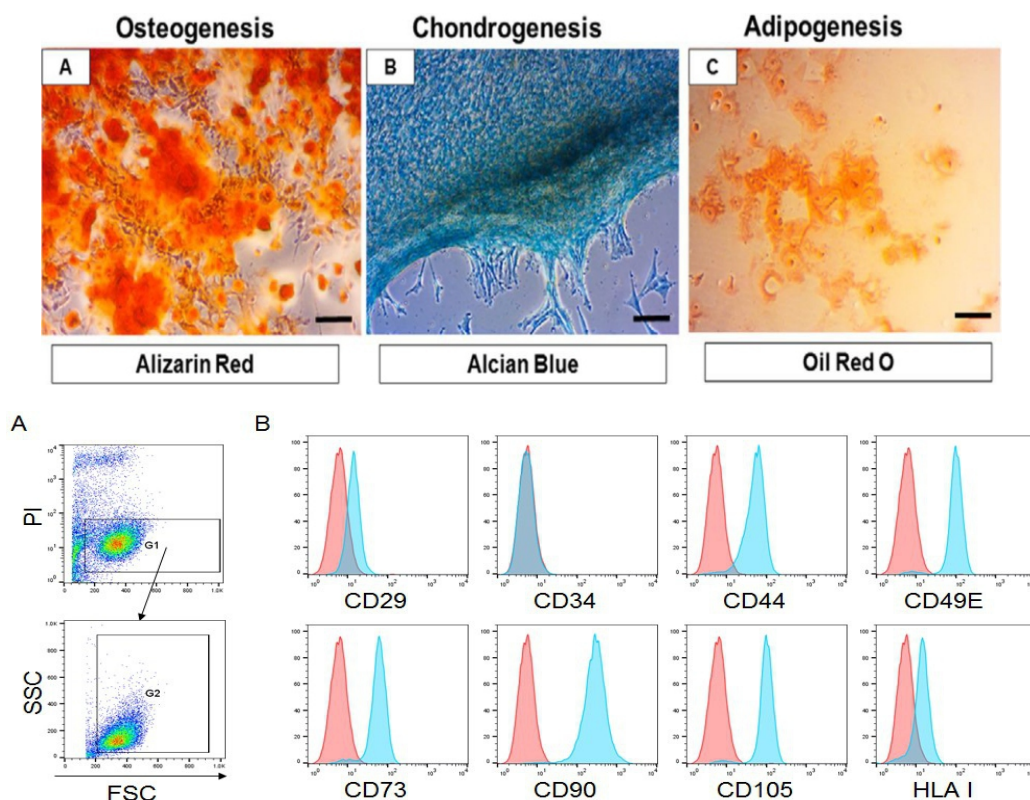
Discovery Services

- Isolation and maintenance of adult tissues and umbilical cord blood/tissue-derived stem cells.
- Characterization of MSCs/AMSCs/HSCs/NSCs by flow cytometry
- 2D and 3D model-based Differentiation Studies
- Neuronal Differentiation Studies
- Osteogenic Differentiation Studies
- Adipogenic Differentiation Studies
- Cardiomyocytes Differentiation Studies
- Dendritic and other immune cell generation from HSCs/MSCs
- Trans-differentiation studies
- Signalling pathways governing stem cells: Notch, Wnt, Hedgehog etc



Available Models

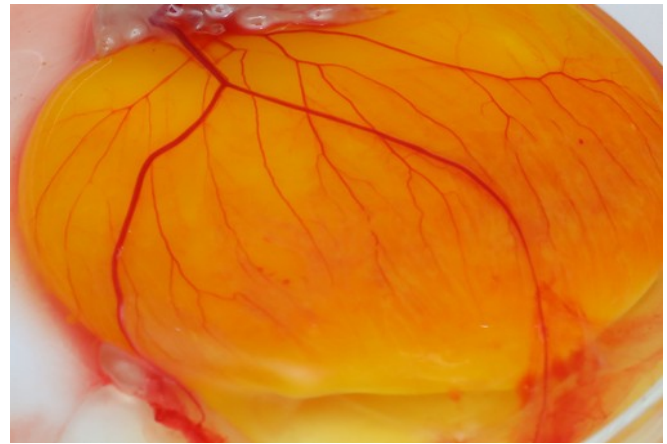
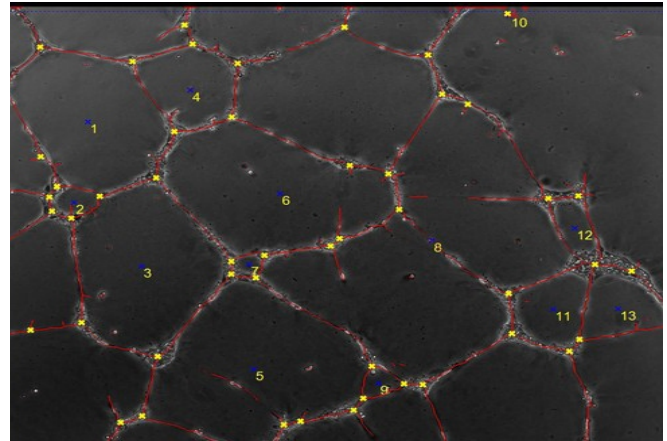
- Human Adipose-derived MSCs
- Human iPSCs
- Human Cord tissue/Blood derived MSCs
- Human iPSC derived neuronal stem cells
- Human Limbal epithelial stem cells
- Human Amniotic membrane stem cells



Our High Throughput Screening methods: Flow cytometry, Confocal/Fluorescence imaging, RTqPCR, Western blot, Next Generation Sequencing, Fluorimetric/Colorimetric/Chemiluminescence etc.

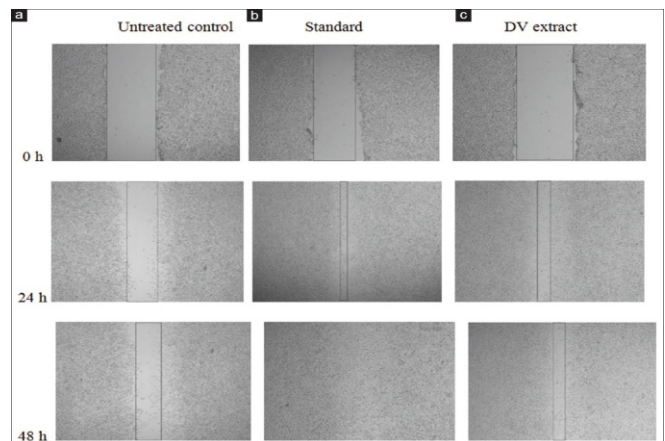
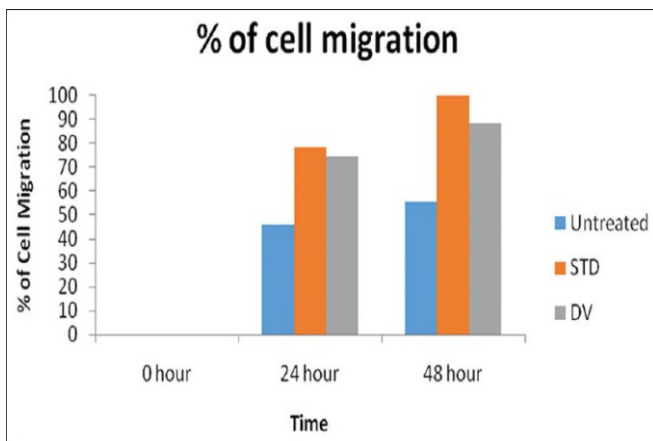
Available discovery assays:

- Proliferation assays
- Cell migration assays: Scratch and cell inserts based
- Angiogenesis assays: Tube formation assay, CAM assay
- Anti-inflammatory assays: pro and anti-inflammatory cytokines studies



Available Models

- Human dermal fibroblasts
- Human primary dermal epithelial cells
- Human endothelial cells
- Human primary macrophages, T cells, DC and NK cells
- Human MSCs, iPSCs
- Chick Chorioallantoic Membrane (CAM)



EXOSOMES BASED RESEARCH SERVICES

Exosome Isolation, Purification :

- Differential Ultracentrifugation
- Size-based Isolation of Exosomes
- Exosome Precipitation
- Affinity-based Capture of Exosome
- Immunoaffinity Capture

Exosome Characterization:

- Fluorescence-activated cell sorting (FACS)
- Western blotting
- Enzyme-linked immunosorbent assay (ELISA)
- MS-based Exosome Characterization

Exosome Quantification

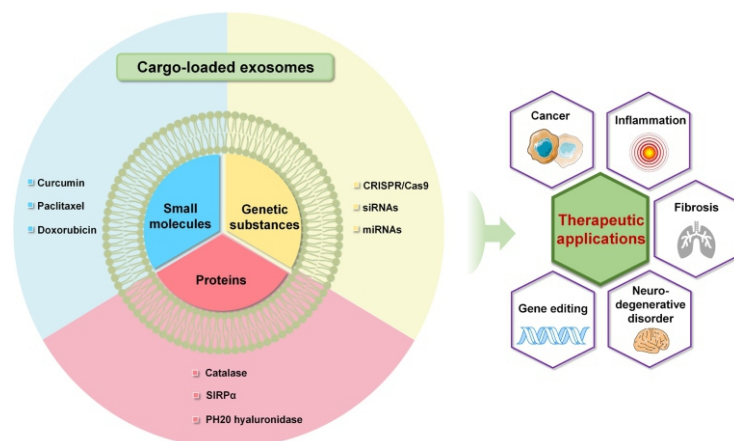
- Nanoparticle tracking Analysis (NTA)
- Scanning Electron Microscopy (SEM)
- Transmission Electron Microscopy (TEM)

Exosome Profiling:

- Exosomal RNA Isolation and qPCR Analysis
- Exosomal protein isolation and profiling
- Exosomal cfDNA isolation and profiling
- Exosomal Cytokines Profiling

Exosome Manufacturing:

From as 2D and 3D models of stem cells such as MSCs, iPSCs, NSCs etc, many cancer cell lines, CHO, and HEK 293 cells etc

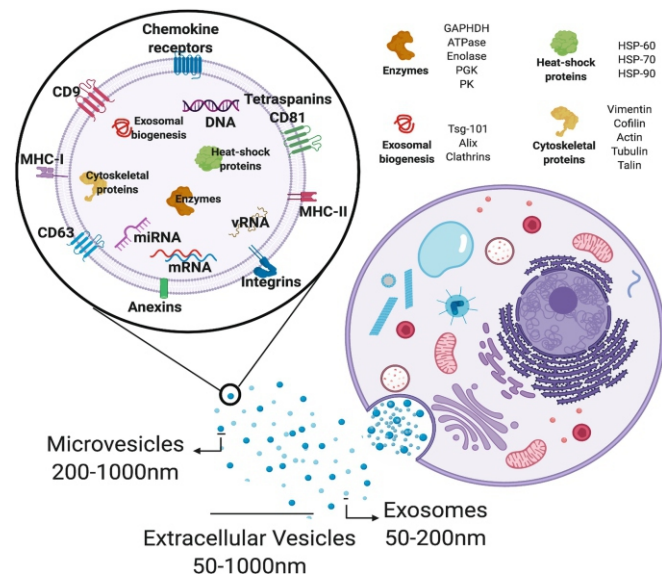


Exosome In Vitro Functional Assay

- Cytoprotective studies
- Wound healing assays
- Angiogenesis assays
- Anti cancer studies
- Anti inflammatory studies
- Permeability studies: 2D and 3D models
- Cell internalization assays
- Skin rejuvenation assays
- Target drug delivery assays

Exosome Engineering:

- Cargo Loading: siRNA, miRNA, Small molecules, drugs, proteins, etc
- Exosome Labelling: Fluorescent, Biotin
- Exosome Targeting
- Exosome Display



Our High Throughput Screening methods: Flow cytometry, Confocal/Fluorescence imaging, RTqPCR, Western blot, Next Generation Sequencing, Fluorimetric/Colorimetric/Chemiluminescence etc.

We support the cosmetic industries in several ways by providing in vitro cell culture model-based services relating to hair regeneration and toxicology. Safety assessment is our top priority, and we ensure safety reports according to OECD guidelines.

Services offered

- In vitro hair regeneration assays
- Safety & toxicology assessment
- Microbial Contamination Detection
- Microbial Contamination Identification
- Safety-Skin toxicity related assays permeability, corrosion, irritation, inflammation, cell viability
- Efficacy assays -such as anti-ageing,
- Product QC: Cosmetic products contamination studies

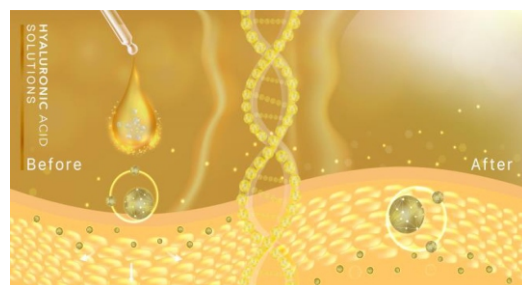
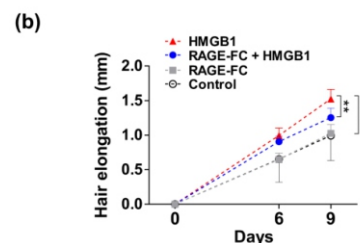
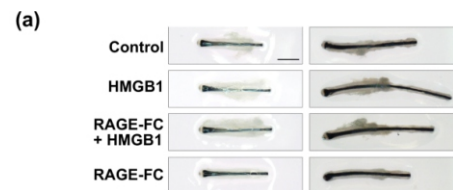
MEDICAL DEVICES:

People suffering from various health conditions can be provided quality life with the help of medical devices. However, the human body's contact with the device can have various adverse effects if the device isn't tested beforehand. This calls for standardized manufacturing and usage of the approved medical devices which need to undergo stringent biocompatibility and toxicity tests to prove their efficiency and harmlessness to the human body for further use.

Stellixir Biotech offers tests that adhere to the regulations with standardized practices or every device.

Services offered

- Bacterial Endotoxin testing for all injectable and implantable devices
- Biocompatibility testing
- In-vitro hemolysis assay for hemocompatibility test
- In-vitro cytotoxicity screening with 2D and 3D model
- In-vitro genotoxicity biocompatibility testing
- Bacterial Reverse Mutation Test (Ames)
- In Vitro Mouse Lymphoma Assay TK
- In Vitro Micronucleus Test
- In Vitro Chromosome Aberration Test
- In-vitro cardiotoxicity testing



NEXT GENERATION SEQUENCING

Using Ion GenStudio S5 system from ThermoFisher scientific, Stellixr Biotech aim to provide faster, scalable and cost-effective NGS services for your clinical and translational research applications.

Services we offer:

- Whole Genome Sequencing
- Exome Sequencing
- RNA Sequencing
- Pre- Implantation Screening
- Prenatal And Postnatal Screening
- Hybridoma or Antibody Sequencing
- Agriculture and Live Stock Genotyping
- Metagenomics
- Microbiome analysis
- Microbial identificatio : 16s, 18s and STR sequencing
- SNP analysis

Samples we undertake:

- FFPE tissue solutions
- Liquid Biopsy Solutions
- Blood samples
- Pure microbial culture
- Plant samples
- Probiotics
- Environmental samples: Soil, water, cow milk and dung samples

Research Areas we support:

- Cancer Research
- Immuno-Oncology
- Heme Oncology
- Oncomine Tumor specific panels
- Reproductive Health
- NewBorn Screening Panel
- Agriculture and Livestock
- Gut Health Research
- Food Tech and Dairy research
- Environmental research



NGS - Ion GeneStudio S5



RTqPCR -
QuantStudio 5



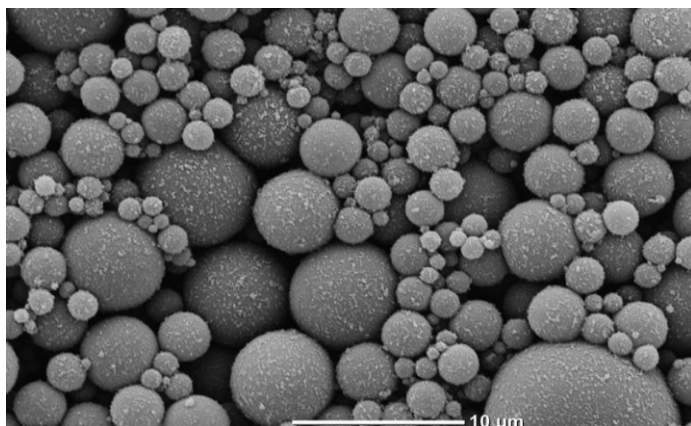
Our High Throughput Screening methods: Flow cytometry, Confocal/Fluorescence imaging, RTqPCR, Western blot, Next Generation Sequencing, Fluorimetric/Colorimetric/Chemiluminescence etc.

- a) Cloning, sequencing, and expression service
- b) gDNA extraction, Reverse transcriptase PCR and Real-time PCR
- c) RNA extraction, cDNA synthesis, Real-time PCR and Report
- d) Protein Purification service from recombinant Bacteria (His tag) and wild fungi strains
- e) Labeling services
- f) DNA fingerprinting service/RAPD
- g) Mycoplasma detection by PCR
- h) Endotoxin detection by colorimetry/fluorimetry
- i) Epigenetics: Methylation analysis, miRNA analysis, DNA protein interaction analysis



BIOANALYTICAL LABORATORY SERVICES

- **Phytochemistry:** Plant extractions, isolation of secondary metabolites and bioactive compounds.
- **Bioanalytical Services:** GC-MS, LC-MS/MS, SEM, TEM, HPLC, HPTLC, NMR, X-RD.
- **Biomarker Testing:** Flow cytometry, Immunocytochemistry - Confocal microscopy, ELISA, WB.
- **Immunology Testing:** Immunohistochemical immunocytochemical assays, ELISA-based assays
- **Next-generation Sequencing:** GWAS studies, SNP detection, RNA seq, Exome Sequencing, CNV Analysis



NANO TECHNOLOGY SERVICES BASED

- Particle size analysis
- Particle count
- SEM
- TEM
- UV and XRD
- Zeta potential
- FTIR
- Cytotoxicity and other biological applications
- Cellular internalization assays: FACS and Fluorescence microscopy

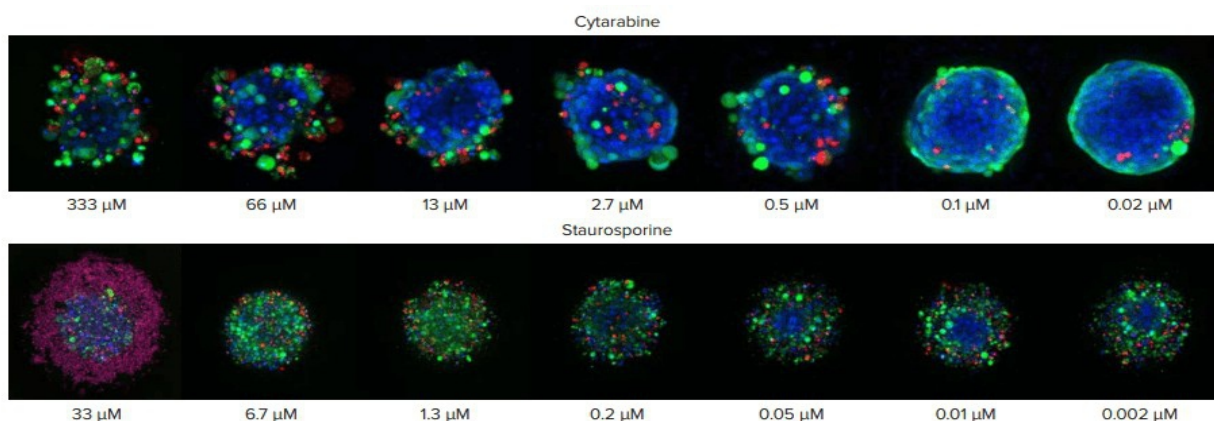
The development of improved, innovative models for the detection of toxicity of drugs, and/or chemicals, is crucial to efficiently bring new products safely to market in a cost-effective and timely manner. To reduce, refine, and replace animal testing, innovative organotypic in vitro models have emerged. Use of 3D tissue offers a novel preclinical test systems and as alternatives to animal testing. We anticipate that three dimensional cultures will become invaluable to accomplish the 3R agenda (refinement, reduction, and replacement) for animal-based toxicity testing and will play a major role for the Registration, Evaluation and Authorisation of Chemicals in the European Union (REACH legislation). Stellixir, supports your toxicity assessment by using such models that appear at different levels of complexity ranging from simpler, self-organized three-dimensional (3D) cell cultures up to more advanced scaffold-based co-cultures consisting of multiple cell types.

Studies we offer:

- Micronucleus assay:(OECD 487)
- chromosomal aberration assay (OECD 473)
- Mammalian cell gene mutation assay: (OECD 490/476)
- AMES MPF assay: (OECD 471)
- Mitochondrial toxicity: Glu/Gal assay
- Neurotoxicity: Developmental neurotoxicity, Neurite outgrowth, Synaptogenesis assay
- Ocular toxicity : OECD 491, OECD 492
- In vitro comet assay
- Skin corrosion:OECD 431
- Skin irritation: OECD 439
- Skin sensitization: OECD 442D,OECD 442C
- Transdermal Permeability Testing
- Phototoxicity Testing
- Cytotoxicity in fibroblast cell lines (MTT and Neutral red)
- Hepatotoxicity & Drug-induced Liver Injury (DILI)
- Hemolysis assay
- hERG Cardiotoxicity

Our in vitro 3D models:

- HepG2, HUH7, Hep3B cell lines and human iPSC HepRG spheroid cultures
- MLA (L5178YTk+/- cell line) and HPRT (CHO-K1 cell line) mutations
- 3D reconstructed human epidermis models
- HaCaT cells
- Statens Seruminstitut Rabbit Cornea SIRC cell line
- 3D reconstructed human corneal epithelium tissue model



Genotoxicity models:

Our toxicology and safety pharmacology services are designed to offer you a one-stop CRO where you can find exactly the expertise and packages your products require :

- Characterizing any adverse effects
- Identifying potential target organ toxicity
- Determining dose-levels
- Defining mechanisms of action
- Assessing risk to humans, animals and the environment.

Genotoxicity testing is an important part of the hazard assessment of chemicals for regulatory purposes. To assess genotoxicity different endpoints must be taken into consideration: beside point mutations induction, a compound can induce changes in chromosomal number or in chromosome structure.

Our OECD compliant in vitro and/or in vivo genetic toxicology tests include :

Stage I

a Ames test

a Gene mutation test in mammalian cells: mouse lymphoma test

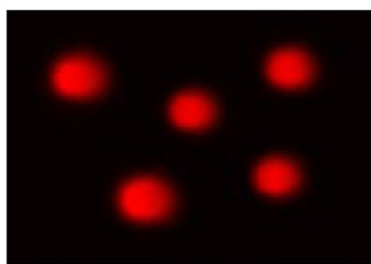
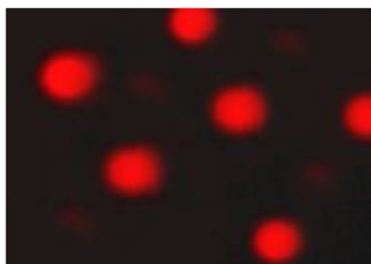
Stage II

a Comet assay in primary skin cells or models

a Micronucleus test in primary skin cells or models

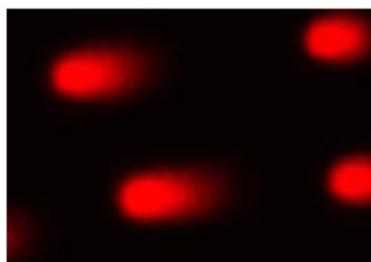
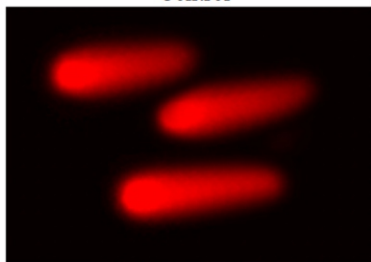
HCT15

HT29



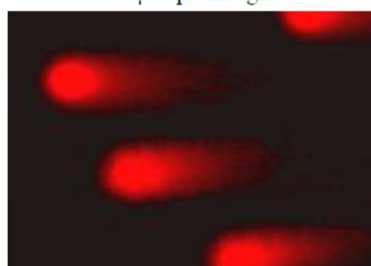
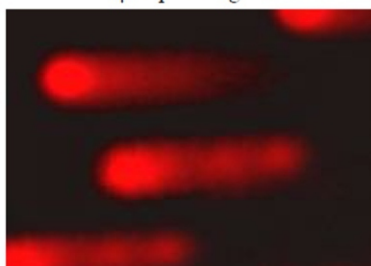
Control

Control



15 μM plumbagin

50 μM plumbagin



30 μM plumbagin

75 μM plumbagin



Physico-chemical Assays:

Solubility assessment, plasma protein binding, permeability, absorption, stability, and reactivity of a drug.

In Vitro Metabolism:

CYP & UGT reaction phenotyping, microsomal stability, S9 stability, hepatocyte stability, hepatic uptake, plasma stability, metabolite profiling and identification, microsomal binding.

Permeability And Transporters:

GIT-PAMPA, BBB-PAMPA, Intrinsic permeability in Caco-2 cell models, Breast cancer resistance protein (BCRP)-MDCK-II, and Multidrug resistance protein (MDR1)-MDCK-II, Lilly laboratories cell-porcine kidney (LLC-PK1)-MDR1.

Drug-drug Interactions:

cytochrome P450 induction, cytochrome P450 inhibition, cytochrome P450 relative induction score, cytochrome P450 Ki, PXR, and AhR nuclear receptor activation, time-dependent inhibition (IC50 shift), reaction phenotyping (CYP Identification), UGT inhibition.

Cytochrome P450 Induction:

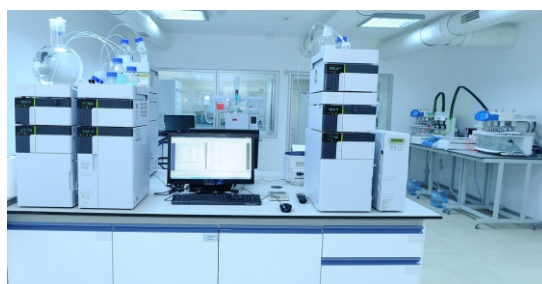
HepG2 cell line (CYP3A4)-Reporter gene-based assay, Human primary hepatocytes based assays

Metabolite Identification And Biotransformation:

Intrinsic clearance (CL_{int}) and high-level profiling of the top three metabolites in liver microsomes and hepatocytes, Metabolite soft spot analysis, Metabolite fingerprinting, and High-throughput reactive metabolite screening.

Pk/Pd Modeling And Simulations:

PK/PD/ efficacy correlations based on exposure or C_{max}, PK modelling and simulations, Scaling of preclinical PK to predict human PK using an allometry approach, Prediction of first-in-human (FIH) and median efficacious doses (MED), Pharmacokinetic parameter evaluations using Phoenix WinNonlin.



OUR HIGH THROUGHPUT SCREENING FACILITIES



BD FACSCalibur



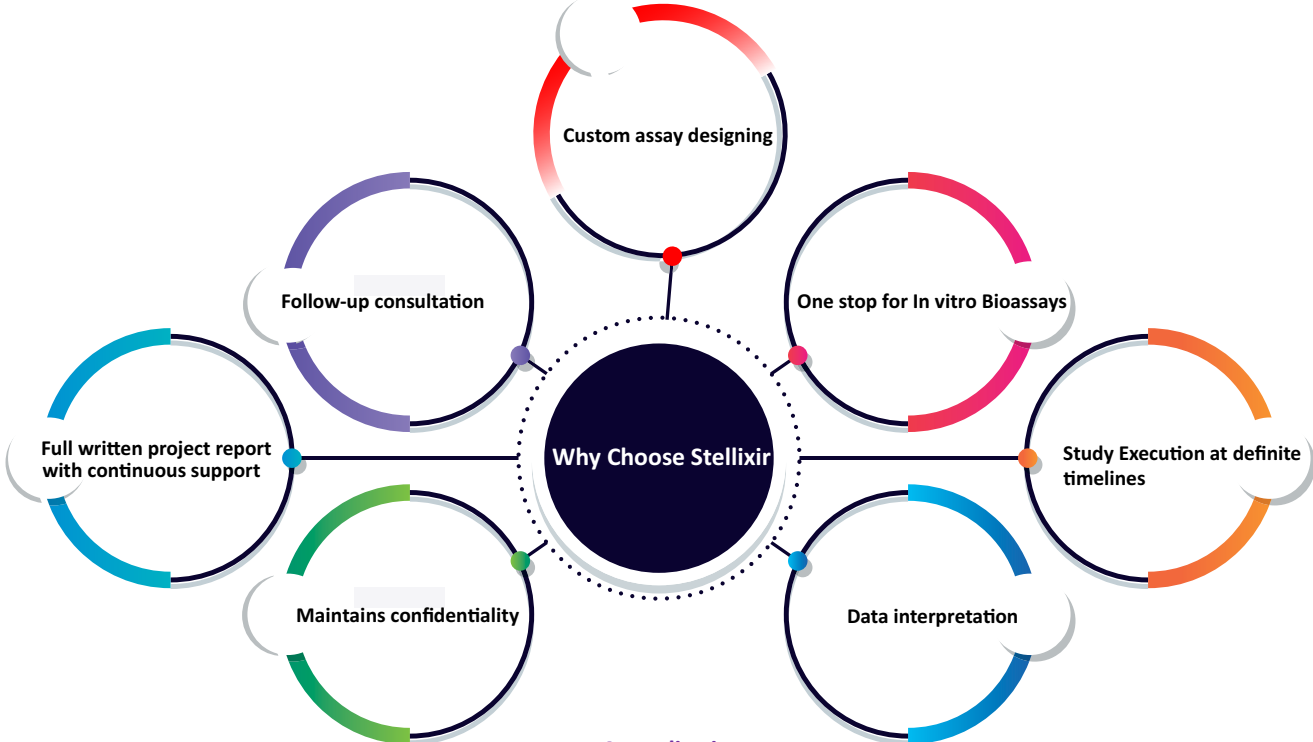
FLM - ZEISS Axio Observer - 7



NGS - Ion GeneStudio S5



RTqPCR - QuantStudio 5



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info@stellixir.com

Accreditations



ISO 10993-3:2014 - Biological evaluation of medical devices :
Tests for genotoxicity, carcinogenicity and reproductive toxicity
ISO 10993-4:2017 - Selection of tests for interactions with blood
ISO 10993-5:2009 - Tests for in vitro cytotoxicity

Our High Throughput Screening methods: Flow cytometry, Confocal/Fluorescence imaging, RTqPCR, Western blot, Next Generation Sequencing, Fluorimetric/Colorimetric/Chemiluminescence etc.