

Biology

GVK BIO offers confidential screening services for drug discovery and determination of biological activity customized to meet the research needs of the Pharma and Biotech industries. Our range of assays include Biochemical, Cellular, ADME & Animal Assays for profiling of NCEs for Specificity, Selectivity, Efficacy, Drugability and Toxicity.



Services

We provide faster, reliable, cost effective and comprehensive pharmacological profiling services comprising of primary screening, selectivity, ADME properties and evaluation in animal models.

In vitro pharmacology

- Binding assays
 - G protein coupled receptors
 - Ion channels
 - GPCR functional assays
- Enzyme assays
 - Kinases
 - Proteases
 - Phosphatases
- Cellular assays
 - Cell adhesion
 - Cytokine / Mediator release
 - Immuno modulation by nitric oxide release
 - Human whole blood assays for COX 1 and COX 2
 - Cytotoxicity
 - Cell based kinase
 - Cell based glucosidase
 - Cell based nitric oxide

ADME assays

- Physicochemical studies
 - LogD/ LogP
 - Solubility (Thermodynamic/ Kinetic)
 - Chemical stability
- Absorption/Distribution assays
 - Caco2 / MDCK permeability assay
 - Pgp substrate efficiency
 - Protein binding
- Metabolism
 - Matrix: microsomes (Human/rat/mouse)/ S9 fraction/ Hepatocytes/ CYP isozymes
 - Metabolic stability, Half life and Intrinsic clearance
 - CYP Inhibition (1A2, 2C9, 2C19, 2D6, 3A4.)
 - Phase I and II and Metabolite Identification

Animal models

We offer the following animal models pertaining to various therapeutic areas. All models have been validated using at least 3 reference compounds

- Pain
 - Nociception
 - Inflammatory Pain
- Inflammation
- CNS
- GI

In vivo Rodent/Rabbit Pharmacokinetic Study

- Administration of NCE by various routes
- Single dose/ Multiple dose PK
- Dose Proportionality Studies
- Absolute Bioavailability
- PK/PD relationship studies
- In vivo blood brain barrier study
- Determination of PK parameters using WinNonlin Software
- Toxicokinetics
- Surgical expertise
- Bioanalysis
- Analysis by LC-MS/MS, Absorbance, Fluorescence
- Method Development and validation in Biological Matrix such as Blood, Plasma/serum, CSF, Urine, Faeces, Tissues, Cell supernatants

Exploratory toxicology studies in rodents

We offer In vivo toxicity evaluation of NCEs in early discovery phase to identify the potential for adverse effects.

Typically, it involves the following :

- Single/Repeated Dose
- Compound administration : 4 / 7 days
- Necropsy & histopathology
- Clinical chemistry
- Hematology
- Urinalysis
- Target specific monitoring

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Intellectual Property

Well-defined IP security policies and procedures form the basis of a secure IT infrastructure along with periodic internal and external security audits. It is mandatory for all our scientists to sign a Non Disclosure Agreement (NDA).

Business Model

Our flexible business model ranges from FTE collaborations and fee-for-service to collaborative research and risk sharing partnerships.

People

Our team of skilled and experienced personnel has extensive expertise in receptor biology, enzymology, cell biology, ADMET studies and animal models. The team comprises of a balanced milieu of Post Docs, Ph.Ds, M.V.ScS M.Pharms and M.ScS in pharmacology, biochemistry, cell biology and molecular biology.

About GVK BIO

GVK Biosciences, India's premier Contract Research Organization, delivers integrated research services. The company accelerates the Drug Discovery and Development process of its customers through science and innovation.

- Informatics
- Medicinal Chemistry
- Biology
- Process R&D and Custom Synthesis
- Clinical Research
- Clinical Pharmacology

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