

# Cost Effective & Customized DMPK Services with Rapid Turnaround Times

GVK BIO offers comprehensive DMPK services to support your drug discovery needs. We deliver high-quality and reproducible DMPK data using standard assay technologies that support an efficient “Design-Make-Test-Analyze” cycle.

## Spectrum of Services:

### NCE Formulations

- Suspensions
- Generally recognized as safe (GRAS) formulations
- Cosolvency
- Self-micro emulsifying drug delivery systems (SMEDDS)

### *In vitro* ADME

- Kinetic and thermodynamic solubility (Multiscreen HTS filter plate/LC-MS/MS method)
- *Log P* & *Log D*
- PAMPA, MDR1-MDCK & Caco-2 permeability
- Plasma protein binding (equilibrium dialysis)
- Microsomal & *In vitro* tissue binding
- Blood/plasma partitioning
- Metabolic stability (Microsomes, S9 fractions and hepatocytes)
- Met ID (Soft spot)
- CYP inhibition & induction
- Reaction phenotyping
- Time dependent inhibition
- GSH & cyanide trapping

### *In vivo* PK

- Species: Rat, Mouse, Dog, Rabbits, Guinea pigs
- PK studies: Single dose, multiple dose, cassette dose, snapshot, rapid, BBB
- Routes: Per oral, IV, IP, SC, ID, Intra tracheal, rectal
- Tissue distribution studies
- Dose range finding studies
- IV infusions for conscious rat
- Metabolite characterization & identification of *In vivo* samples
- Excretion studies: Biliary, urinary & feces

### Our Strengths

- Highly trained *In vitro* & *In vivo* PK scientists with extensive global drug discovery experience
- Bioanalytical scientists proficient in rapid method development ensuring sensitivity, robustness and reproducibility
- Flexibility to adapt protocols based on specific client requirement
- AAALAC accredited animal facility
- State-of-the-art infrastructure with highly sensitive instruments, including Triple Quad LC-UV/MS/MS and HPLC systems

### Pharmacokinetic Analysis

- Non compartmental approach
- Compartmental approach (First, second and multi compartment)
- PK-PD correlations
- Human dose projections (Allometric scaling)

### Bioanalytical Research

- Development and validation of LC-MS/MS methods for small molecules, large molecules, prodrugs, therapeutic peptides and biomarkers
- Development of efficient/ reproducible extraction procedure (PP, LLE and SPE)
- Recovery and linearity studies
- Development of analytical methods in biological matrices
- Analysis of preclinical PK/TK studies and report writing
- Analysis of preclinical drug-drug interaction studies

