

## In Vitro ADME/Tox

### Absorption

- *Caco-2 permeability*
- *Aqueous or pH solubility*
- *Dissolution*
- *Chemical stability (pH, SGF, SIF)*
- *Pgp/BCRP substrate ID*

### Distribution

- *Blood-to-plasma ratio*
- *Plasma protein binding*
- *Tissue binding*

### Metabolism

- *Blood/plasma stability*
- *Hepatocyte/S9/liver microsome stability*
- *Metabolite profiling*
- *Drug-metabolizing enzyme ID (CYP/  
UGT/FMO/MAO/AO/XO/ALDH/ADH)*

### Excretion

- *Hepatic/Biliary (Pgp/BCRP/BSEP/  
OATP1B1,1B3 substrate)*
- *Renal (Pgp/BCRP/OAT1,3/OCT2/MATE1,2  
substrate)*

### Drug-Drug Interaction

- *CYP/UGT inhibition*
- *CYP induction*
- *Drug transporter ID & inhibition (efflux  
ABCs & uptake SLCs)*

### Toxicity

- *Reactive metabolite detection*
- *Cytotoxicity & Hemolysis*

## Bioanalysis

- *Bioanalytical method development*
- *Drug/metabolite concentration in  
plasma, urine, bile, or tissues*
- *Dosing solution concentration*
- *Drug/metabolite/impurity/degradant ID*
- *Biological & non-biological solutions*

## In Vivo PK

- *Standard PK (IV, PO, IP, SC, IM, etc.)*
- *Dose linearity PK*
- *Tissue distribution PK*
- *Salt or formulation screening PK*
- *Biliary or renal excretion PK*
- *Food effect or drug interaction PK*
- *Dose-range-finding Tox PK*
- *Bioequivalence PK*

## Formulation

- *Intravenous PK solutions*
- *Oral PK solutions & suspensions*
- *Toxicology study formulations*

## Consulting

- *ADME/PK data interpretation*
- *Structure-property relationships*
- *Screening/lead optimization strategies*
- *Inter-species allometric scaling*
- *Human PK prediction*
- *Regulatory documents (IND/IMPD/IB)*

## Why Touchstone Biosciences

- *20+ years ADME/PK experience in  
big pharma and small biotech*
- *Proven track record of excellence in  
ADME/PK & Bioanalysis*
- *High quality & low cost*
- *Free consulting on data interpretation  
& screening/optimization strategies*
- *New customer or volume discount*

## Contact Information

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