A FLEXIBLE APPROACH TO DMPK

QPS PROVIDES A DEDICATED TEAM OF SENIOR DMPK SCIENTISTS to select, design and conduct absorption, distribution, metabolism and excretion (ADME) and quantitative whole body audioradiography (QWBA) studies.

QPS DMPK OVERVIEW

Studies determining absorption, distribution, metabolism and excretion (ADME) characteristics of drug candidates in laboratory animals and humans are an integral part of the drug metabolism and pharmacokinetics (DMPK) services provided by QPS. DMPK projects cover a drug development program from the discovery, candidate selection, investigational new drug (IND) enabling, through new drug application (NDA) stages.

IND-enabling Preclinical Studies

Human AME Studies

Radiolabeled ADME Studies

QWBA Studies

MACRO & MICRO AUTORADIOGRAPHY

QPS is expert in providing combined mass balance, biliary excretion, PK, and QWBA studies.

- Increased efficiency by using a single study protocol
- Elimination of the possibility of radiolabel degrading over an extended period of time between studies
- Metabolite profiling and identification can be done using samples from the same study

PROTEIN BINDING

QPS protein binding studies determine the extent of protein binding in various species' plasma and tissues.

- Methods: equilibrium dialysis (RED, Harvard device, 96-well HTD), ultrafiltration, and ultracentrifugation
- Discovery screening, *in vitro* protein binding for IND, and *ex vivo* studies in clinical phases
- Experience in compounds with very high binding, stability issues, or non-specific issues

BIOTRANSFORMATION

QPS biotransformation studies determine how a molecule may be altered by the action of enzymes.

- *in vitro* metabolic stability in hepatic subcellular fractions to determine intrinsic clearance
- *in vitro* comparison of metabolite formation in animal and human hepatic preparations
- *in vivo* metabolite profiling, identification and quantification to satisfy metabolites in safety testing (MIST)

DRUG-DRUG INTERACTION

QPS drug interaction studies determine the potential of a substance to alter cytochrome P450 activity.

- *in vitro* inhibition characterization
- *in vitro* mechanistic characterization
- Identification of the reversible mechanism of inhibition
- *in vitro* mechanistic characterization
- Identification of the mechanism of time *in vitro* characterization of CYP1A2, CYP2B6, and CYP3A4 induction potential dependent inhibition

SCIENTIFIC LEADERSHIP AND PROVEN RESULTS

Our dedicated, experienced team ensures that all DMPK studies conducted at QPS meet timelines and regulatory requirements. QPS provides high quality data along with direct access to our technical staff, regularly scheduled updates in a format that works for you, and prompt and courteous answers to your inquiries at a fair and competitive price.

- IND-enabling preclinical studies
- QWBA
- Radiolabeled ADME
- Human AME
- Protein Binding

QPS
CUSTOM-BUILT RESEARCH™

QPS IS A GLOBAL CRO WITH LOCATIONS AROUND THE WORLD

BENEFIT FROM THE WORLDWIDE RESOURCES THAT A GLOBAL CONTRACT RESEARCH ORGANIZATION BRINGS

Whether your focus is small molecules, protein biotherapeutics, vaccines, gene therapy or cell therapy, QPS provides a full range of bioanalytical services to support all drug development needs from discovery, through clinical development and regulatory filing.

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TIME IS OF THE ESSENCE IN DRUG DEVELOPMENT.
CONTACT THE QPS BUSINESS DEVELOPMENT TEAM TODAY!

Call +1 512 350 2827 Email infobd@qps.com