LOVELACE BIOMEDICAL

PHARMACOKINETICS/TOXICOKINETICS

Lovelace has broad capabilities in determining the in vivo pharmacokinetics, toxicokinetics, and tissue distribution of small and large molecules delivered by all exposure routes. Lovelace is widely known for leadership in inhalation and other specialized routes of delivery and excels in the development and implementation of novel delivery, tracer, and analytical approaches to resolve dosimetric and metabolic questions. This expertise can be integrated with our broad capabilities in pharmacology and toxicology to understand relationships between exposure levels and physiological effects. Studies in this area can be run in compliance with GLP standards in species ranging from rodents to non-human primates.

KEY CAPABILITIES

- Collection of blood, lymph, urine, bile, cerbrospinal fluid, and other fluids and tissues
- Extrapolation of results in research animals to humans using physiologically-based PK
- Iterative mathematical modeling of pharmacokinetics and pharmacodynamics
- Radiolabeling of compounds and evaluation of ADME with analysis by gamma scintigraphy and radiochemical analysis

DOUSING ROUTES

- Arterial (hepatic artery, carotid artery or femoral artery)
- Inhalation (nose-only, head-only or whole body)
- Intracerebral or intraventricular
- Intravenous infusion: Bolus, intermittent, continuous
- Ocular
- Oral or nasogastric
- Standard routes: IV, IM, IP, SC, PO

ACCREDITATIONS AND LICENSESS

- AAALAC
- CDC Select Agent Program registration
- OLAW
- State of New Mexico radiation license

ANIMAL MODELS

- Mouse
- Rat
- Ferret
- Hamster
- Guinea pig
- Rabbit
- Gottigen swine
- Yucatan swine
- Yorkshire swine
- Non-human Primate

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