

In Vivo Pharmacology



Therapeutic Areas

allergy • acute lung injury • asthma • circulatory shock • COPD • dermatitis • infectious disease
neurology and psychiatry • metabolic disease • pulmonary fibrosis • pulmonary arterial hypertension radiation injury
renal toxin injury • spinal cord injury • traumatic brain injury • vascular disease • wound healing

Lovelace Biomedical provides **comprehensive in vivo pharmacology services to evaluate therapeutics in preclinical development** for a wide range of indications. Our skilled scientific team routinely develops and refines 100+ models of disease in both large and small animals, with the ability to create customized approaches for emerging drug classes.

Board-certified toxicologists (DABT) and pathologists (DACVP) — as well as expert biologists, engineers, chemists, statisticians and technical staff also support preclinical studies to determine safety and efficacy.

Dosing 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

Support for Full Range of Drug Development

- Analytical/Bioanalytical Chemistry
- DMPK
- Formulation
- GenTox
- IND-enabling toxicology
- Pharmacology

Species

- Canine
- Ferret
- Gottingen, Yucatan or Yorkshire swine
- Guinea Pig
- Mouse
- Non-human primate
- Rabbit
- Rat

Our in vivo pharmacology experience extends to a wide variety of small- and large-molecule delivery methods, including specialty routes, and is complemented by our offerings in pharmacokinetics, analytical chemistry, toxicology and pathology. Studies can be run in compliance with GLP standards in species ranging from rodents to nonhuman primates.

Toxicology



Lovelace Biomedical is a **globally recognized leader in general and specialized toxicology**. Our team conducts a full range of toxicology studies under both Good Laboratory Practice (GLP) or non-GLP guidelines. We integrate quality, leading-edge expertise in non-standard dosing routes, and evaluation of routine and novel endpoints to meet study goals.

Key Capabilities

- Experience with small molecule, biologic (antibody, protein, peptide, siRNA, ADC), gene therapy and cell therapy programs
- IND-, NDA-, BLA-enabling safety programs
- Expertise in wide range of dosing methods, including IV, PO, SC, IM, IP, IA, IT. Industry leader in inhalation, intra-tracheal and intranasal delivery
- Wide range of dosimetric (including tissue-specific compound analysis), toxicokinetic, clinical, physiological and genetic assays
- Full spectrum of safety pharmacology endpoints and studies, including telemetry systems
- Experienced study directors with more than half of the team at the Ph.D. level
- Full histopathology, immunohistochemistry, and morphometric capability
- Integrated bioanalytical capabilities including method development and method transfer
- Single site location to accomplish all study activities under one roof by a dedicated team
- Industry-leading animal behavioral management and enrichment program
- AAALAC-accredited animal facilities
- SEND-compliant dataset generation



300,000

square feet of laboratory space



50+

cross-trained research technicians



500+ staff

centralized in Albuquerque, New Mexico



70+ years

of toxicology experience