

## GENERAL TOXICOLOGY SERVICES

AVANZA's general toxicology services consist of the design, execution, and analysis of GLP and Non-GLP studies that assess the safety and risk profile of pharmaceuticals, biologicals, nutraceuticals, veterinary drugs, environmental contaminants, and other chemical compounds. Our scientific team includes advanced degreed and boarded study directors with diverse areas of expertise to ensure studies are conducted following the highest level of scientific standards.

### Expertise in Toxicology Services

AVANZA provides a comprehensive offering of general toxicology services, including:

#### Types of Studies

- Acute Toxicity
- Subchronic Toxicity
- Chronic Toxicity
- Carcinogenicity

#### Species

- Mouse
- Rat
- Guinea pig
- Rabbit
- Canine
- Minipig
- Non-human Primate
- Pig / Swine

#### Administration Routes

- Oral
  - Gavage
  - Dietary
  - Capsule
  - Drinking water
- Parenteral
  - Intramuscular
  - Intraperitoneal
  - Intravenous
  - Intra-artreal
  - Subcutaneous
  - Continuous Infusion

#### Administration Routes (continued)

- Other
  - Dermal
  - Intra-colonic
  - Intradermal
  - Intravesicular
  - Intravitreal
  - Ocular
  - Sublingual
  - Vaginal

#### A Specialized Technical Staff

AVANZA's toxicology professionals are experienced in the following specialized techniques/studies:

- Vaccine Studies
- Biodistribution Studies
- Continuous infusion Administration
- DART
- Safety Pharmacology
- Pharmacokinetics / Toxicokinetics
- Surgical Services

#### Multi-disciplinary Services. One Outsourcing Partner

In addition to general toxicology services, AVANZA offers supporting services such as histology, non-standard clinical pathology, pathology, and analytical chemistry services. Our program management services are overseen by experienced professionals which enable effective communication throughout your study by providing a single point of contact.

### Facility Excellence

AVANZA's laboratory is GLP compliant, AAALAC International accredited, USDA licensed, and has approved assurance on file with the NIH's OLAW. The laboratory and support facilities are located minutes from the FDA, EPA, and other government agencies

Our facilities are outfitted with the most current technology for data measurement, data collection systems, and animal care. The result is a toxicology laboratory designed to conduct and support a wide range of *in vivo* toxicology projects of virtually any size and complexity.

AVANZA continues to make strategic investments in our toxicology facility in order to provide a first-class laboratory focused on preclinical safety assessment.

### Clinical Pathology Services

AVANZA's clinical pathology laboratory provides GLP compliant support for toxicology studies or stand alone requests. The clinical pathology laboratory's automated serum, blood, and urine analyzers precisely measure serum biochemical, hematological, coagulation, and urine parameters. The laboratory is staffed with ASCP-certified medical technologists providing clients with quality results, on-time delivery, reliable communications, and responsive support.

### Instrumentation

- Siemens Advia® 120 Hematology Analyzer
- Siemens Dimension® Xpand® Plus clinical Chemistry Analyzer
- Beckman-Coulter ACL® 10000 Coagulation Analyzer
- Siemens Clinitek Atlas® Urine Analyzer

### Available Pathology Services

AVANZA provides a comprehensive offering of pathology services either in-house and through our alliance with Veterinary Pathology Services, Inc., including:

- Histology, including special stains
- Histopathology
- Clinical pathology evaluation
- Integrated Pathology Reporting

### Information Technology Helps Ensure a Timely Turnaround

Information technology is an integral part of AVANZA's toxicology services. We utilize our experience with information technology to ensure that your study results are captured, analyzed, and delivered quickly and accurately. Advanced technologies, including Provantis™, are used to ensure clients have access to their data immediately following collection.

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Contact us for more information about AVANZA's Toxicology Services.