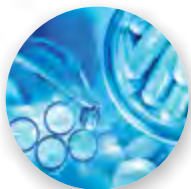


citoxlab

Safety and Health Research



Your partner for
integrated toxicology studies



www.citoxlab.com

Your partner for integrated toxicology studies

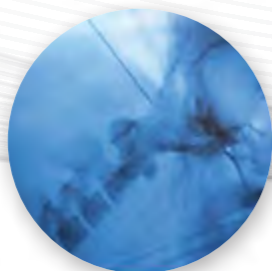
For more than 45 years, Citoxlab has been your one-stop CRO for general and speciality toxicology studies, supportive the pharmaceutical, biotechnology, chemical, food processing, veterinary and crop protection industry.

Our experts provide customized advice and will offer you a full range of regulatory compliant studies from early discovery right through to IND and NDA drug development stages.



Experienced Staff

- Experienced staff across a wide range of specialties: inhalation, infusion, reproductive and developmental toxicology, safety pharmacology, ocular, surgical procedures and specialized routes of administration, etc.
- In-life data capture using Provantis
- Over 100 highly qualified study directors globally
- Dedicated veterinary staff
- Access to key scientific staff
- Advice on regulatory strategies



Study Design

- Wide range of compound classes and therapeutics areas
- Sampling/data gathering procedures
- Various sample matrices
- International regulatory requirements and OECD and ICH guidelines
- Acute to chronic



Routes of Administration

- Complete range of administration/exposure routes
- Oral (gavage, capsule, endoscopy)
- Inhalation
- Parenteral (intravenous and infusion, subcutaneous, intramuscular, intraperitoneal, intrathecal, intra-articular)
- Dermal
- Implant
- Intra-vaginal/urethral
- Rectal
- Intra-vesicular
- Ocular and intra-ocular
- Topical (drops, creams, ointments)
- Sub-conjunctival injection
- Intravitreal and subretinal injection
- Dietary



Species

- All established animal strains and species
- Rats
- Mice
- Guinea pigs
- Dogs
- Cats
- Mini-pigs
- Non-human primates
- Birds
- Fish
- Rabbits
- Hamsters



Laboratory Investigations

- Compound tolerance
- Toxicokinetics/ Pharmacokinetics
- Metabolism
- Excretion
- Carcinogenicity
- Clinical pathology
- Histopathology
- Immunology
- Cognitive function
- Biomarkers

Rodent Units

- Double-barrier rodent units
- Special conditions for Immunocompromised rodents
- GMOs: BSL1 and BSL2 accredited
- Identification of animals by micro-chips or tattoos
- On-line data collection
- Environmental enrichment

Non Rodent Units

- Non human primates
- Pen housing
- Group housed
- Dogs and pigs
- Dedicated buildings
- Outdoor and indoor gang cages
- Environmental enrichment

Non-Human Primate Expertise

- +700 studies with non-human primates (last 10 years)
- Routes: Oral, IV, subcutaneous, intramuscular, intravitreal, intracerebral, intrathalamic and intravenous, etc.
- Cynomolgus and Rhesus
 - Specific pathogen free (SPF) colonies
 - Origins: Mauritius, Asia (China, Philippines)
- Mauritius NHP
 - AAALAC accredited breeders
 - Permanent stock colony
 - Naturally free of SIV, SRV, STLV and Herpes B
- Mature animals
- Embryofetal development completed, Post-Post-natal phase (on going)

TOXICOLOGY SERVICES

- General toxicology in all species
- Special toxicology
 - infusion, Inhalation, Dermal, Ocular
- Immunotoxicology
- Regenerative medicine
- Reproductive toxicology including minipigs and NHPs
- Carcinogenicity studies also in rasH2 and p53+/- mice
- Genetic toxicology: ICH compliant package
- *In vitro* toxicology: BCOP, h-CLAT, KeratinoSens™, DPRA, Photo 3T3-NRU, Episkin™, chicken eye test
- Agrochemical / chemical / REACH
- QSAR
- Physico-chemical testing
- Ecotoxicology: wide range of test species

SAFETY PHARMACOLOGY

- Integrated safety pharmacology in toxicology studies
 - CV (JET), BP
 - Respiratory (JET), plethysmography
 - CNS (FOB) and JET-EEG
- Safety pharmacology core battery
- *In vitro* assays

- GLP compliant ion channel testing panel (hERG +5)
- CNS *ex vivo* models for seizure liability screening
- Screening and follow-up models
 - Rodent and non-rodent LVP telemetry
 - Anesthetized models
 - Polysomnography
 - Gastrointestinal motility

DMPK, BIOANALYSIS, BIOMARKERS

- ¹⁴C and ³H ADME studies in all species
- *In vitro* metabolic clearance, metabolite ID and profiling, DDI package (metabolism and transporters)
- Bioanalysis: LC-MS/MS, GC-MS/MS, LC-ICP/MS, LC-Radiodetection, ELISA, RIA
- Toxicogenomics, miRNA: Affymetrix™ accredited service provider, next generation sequencing (Illumina®)
- Immunology: 10-color flow cytometer, Luminex, Meso Scale

MEDICAL DEVICE

- Biocompatibility testing
- Cardiovascular stents, electrophysiology

- and structural heart studies
- Long-bone defects and craniomaxillofacial/dental models
- Spinal fusion models
- Joint and cartilage repair models
- Regenerative medicine (growth factors, biomaterials, cell and gene therapy)

SPECIALIZED EXPERTISE

- Juvenile studies including minipigs
- Ototoxicity in rats
- Fertility studies in rodents and NHPs
- Radiation safety and efficacy studies
- Drug transporter studies and Drug-Drug Interactions
- Tissue Cross Reactivity (TCR): human and animal tissue banks
- Gene therapy vector biodistribution via qPCR
- ES cell testing: devTOX™ and cardioTOX™ (with Stemina)
- Lead optimization and predictive toxicology services: Leadscreen™



GLP CERTIFIED

Citoxlab France

+33 2 32 29 26 26
contact.france@citoxlab.com

Citoxlab North America

+1 888 353 2240
contact.northamerica@citoxlab.com

Citoxlab USA / Xenometrics

+1 913 850 5000
info@xenometricsllc.com
www.xenometricsllc.com

AccellAB

+1 450 435 9482
info@accellab.com
www.accellab.com

Citoxlab Denmark

+45 56 86 15 00
contact.scantox@citoxlab.com

Citoxlab Hungary

+36 88 545-300
contact.hungary@citoxlab.com

Atlanbio

+33 2 51 10 01 00
atlanbio@atlanbio.com
www.atlanbio.com

SOLVO Biotechnology

+36 62 424 729
sales@solvo.com - www.solvo.com

Media Services Ltd (Japan)

+81 3 3666 9915
citoxlab@mediaservices-jp.com