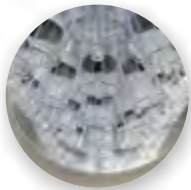


# citoxlab

Safety and Health Research



Your partner for  
biopesticide safety evaluation



[www.citoxlab.com](http://www.citoxlab.com)

# Your partner for biopesticide safety evaluation

Extensive experience with regulatory safety testing for agrochemical and biocide products, including biological products.

- Consultancy to design practicable studies for each individual project based on the specific organism and the intended uses of the product
- Evaluation of testing programmes for EU countries, USA, Australia, Japan, etc.
- Assistance in discussion with regulatory agencies, regulatory support for registration in all regions
- Implementation of laboratory CFU assessment methodology
- OPPTS series 885 guidelines or adapted OECD guidelines with pathogenicity
- Pathogenicity and infectivity assessment studies in rodents and ecotoxicology species
- Toxicity assessment studies for the organism, inactivated organisms and sterile media
- GLP study plans and reports, suitable for international registration



GLP CERTIFIED



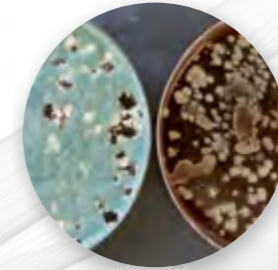
## Rodent testing

- Oral toxicity by gavage and dietary exposure
- Inhalation and intratracheal administration
- Intraperitoneal, intravenous, subcutaneous administration
- Dermal toxicity
- *In vitro* and *in vivo* skin and eye irritation



## Ecotoxicology testing

- Quail
- Trout
- Honey bee
- Carp
- Earthworm
- Zebrafish
- Parasitic wasp
- Chironomid
- Predatory mite
- Daphnia
- Collembola
- Algae and lemna



## Biopesticide experience

- Virus
- Bacterial spore
- Bacteria
- Yeast
- Fungal spore
- Protozoan



## Standard procedures

- Testing live organisms
- Formulating for each study type
- Gamma irradiation (for testing of sterile form)
- Method development for CFU counting
- Method validation for CFU under GLP

## 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

- <sup>14</sup>C and <sup>3</sup>H 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™



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