Human Biology & Toxicology

UMONS

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Fields of expertise and industrial targets

Fields of expertise

• Tools in Predictive Toxicology
• NMR-based Metabonomics (*in vitro* and *in vivo*)
• QSAR approaches (Percepta, DEREK, METEOR, …)
• Conventional tox studies in rodents
• Risk Assessment (RTD determination)

Industrial applications fields (or companies potentially interested)

• Pharma – Biomedical – Clinical Research Groups
• Food and chemistry industry
• Academic labs involved in early development of new molecules
Examples

→ All equipments to conduct Metabonomics studies in rodents and on cell cultures:

  o Animal facility with refrigerated metabolic cages
  o Menarini Spotchem EZ (clinical chemistry)
  o Cell culture Lab / isolated mitochondria
  o NMR spectrometers
  o Softwares for NMR data handling & multivariate data analysis
Examples

→ First characterization of potential drug adverse effects (Liver, kidney, cardiac)

→ Metabonomic profiling (*in vivo* *α* *in vitro* models)

→ Biomarkers identification

→ Invertebrates models for environmental risk assessment
Training proposals to companies

ITEMS

→ Metabonomics training (theory + practice)
→ Methods in predictive toxicology (QSAR, in vitro testing, ...)
→ Risk assessment (RfD determination / HIA)
UMONS/Faculty of Medicine & Pharmacy
Human Biology & Toxicology

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