XenoGesis
Preclinical DMPK & Bioanalysis

Get in touch

To speak to a member of our team or to find out more about how XenoGesis can help you achieve the success you are looking for, contact us today.

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When identifying problems is not enough

XenoGesis
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Helping you to achieve your drug discovery goals

XenoGesis Ltd is a laboratory-based contract research organisation (CRO) specialised in preclinical drug metabolism & pharmacokinetics (DMPK), quantitative bioanalysis and expert interpretation.

It is clear that identifying poor compounds early through scientific rigor is key in preventing progression into more expensive pre-clinical tests. Even a minor improvement in early-stage drug failure prediction will result in significant time and cost savings for R&D companies. At XenoGesis we identify the potential 'winners' and 'losers' in a selection of compounds synthesised in drug discovery campaigns. Moreover, providing iterative feedback to the research team based on the results and recommending next steps.

We combine our state-of-the-art *in vitro*, *in vivo* and bioanalytical capabilities with our expert pharmacokinetic/pharmacodynamic (PK/PD) data interpretation services.

Using this integrated approach we provide you with the information required to successfully achieve your drug discovery goals.

Identifying poor compounds early through scientific rigour is key in preventing progression into more extensive pre-clinical tests.

Why choose XenoGesis - expertise you can count on

The XenoGesis team has extensive combined experience in the pharmaceutical industry.

We can help you plan, execute and interpret the right experiments to bring your research forward in a most cost and time effective way. Whatever your needs in preclinical ADME are, we will find a flexible solution specifically tailored to meet them.

What our clients say...

"I have been impressed with the quality and timely delivery of the work so far (and the reports are of a high quality), and I can certainly see us working together again."

"Remarkable! Thank you so much for your help and persistence in delivering the results….I'd be more than happy to deliver a glowing recommendation."

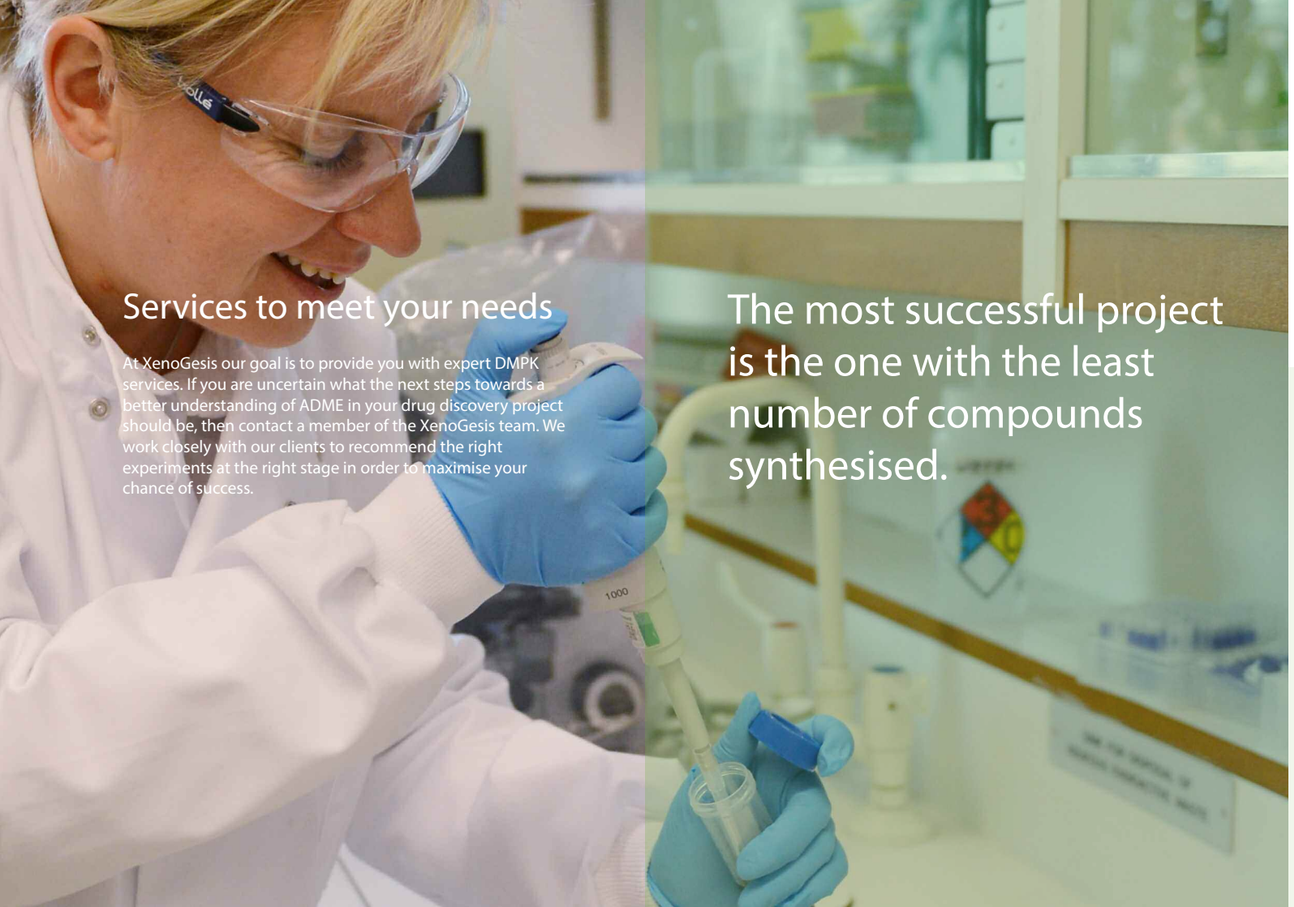
XENOGESIS SUPPORTS ALL KEY DISCOVERY DISCIPLINES

MEDICAL CHEMISTRY
Absorption
Metabolism
Predicted pre-clinical and human half-life
DDIs (CYPs and Transporters)
Reactive metabolite mitigation

BIOLOGICAL SCIENCES
Potency anomalies
Metabolite testing
Predicted whole blood potencies
3Rs -appropriate molecules for *in vivo* testing
Designing appropriate dosing regimes for PD studies
PK/PD relationships

SAFETY ASSESSMENT
Dosing regime design of safety studies
Reactive metabolite mitigation
MIST guidelines
TK support
Safety Margin calculations
Cmax:Cmin, total/free AUC etc.

HUMAN DOSE AND PK PREDICTION



Services to meet your needs

At XenoGesis our goal is to provide you with expert DMPK services. If you are uncertain what the next steps towards a better understanding of ADME in your drug discovery project should be, then contact a member of the XenoGesis team. We work closely with our clients to recommend the right experiments at the right stage in order to maximise your chance of success.

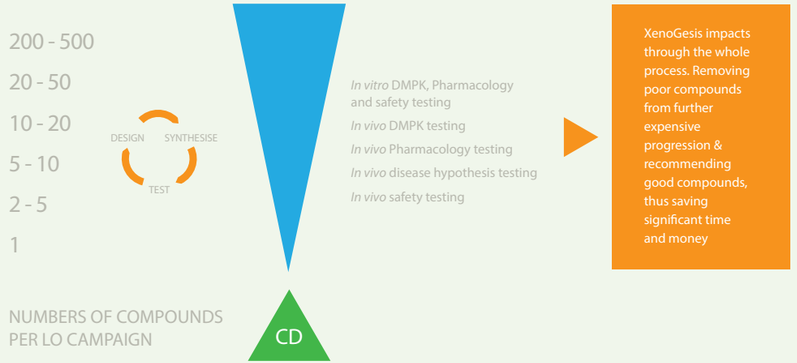
The most successful project is the one with the least number of compounds synthesised.

XenoGesis capabilities

No two projects are the same and for that reason we provide our clients with a consultative approach. To ensure the most effective approach, we review your goals and situation. We believe that by working in a consultative manner we can recommend the most suitable assays and/or screening that will be time and cost effective for you. We also focus on providing iterative feedback and optimising through compound design based on the generated results.

XenoGesis offers pre-clinical DMPK, TK and Bioanalysis Capabilities to companies around the world.

TYPICAL DRUG DISCOVERY PROCESS



In vitro

- Kinetic solubility
- Log $D_{7.4}$
- Permeability and Transporter studies
- Plasma or Tissue Binding (rapid equilibrium dialysis)
- Compound free fraction determination (fu) in hepatocytes and microsomes
- Blood: Plasma ratio determination

Chemical and Metabolic Stability

- Liver microsome, and S9 fraction metabolic stability (CLint)
- Hepatocyte metabolic stability (CLint)
- Plasma and blood stability
- Gastrointestinal stability
    - Porcine GI stability
    - Small intestinal mucosal homogenate stability
    - Intestinal microsome stability
    - FaSSGF, FaSSIF, FeSSIF stability
    - GI tissue homogenate stability
- Metabolic identification to aid design-make-test cycle: major metabolites in microsomes or hepatocytes
- Metabolic stability in tissues
- pH stability
- Glutathione chemical stability (T½)

Cytochrome P450 Assays

- CYP inhibition
- CYP phenotyping

In vivo

- Pharmacokinetics
- IV / PO / IT / SC pharmacokinetics (PK) in pre-clinical species
- Biliary & Renal clearance
- Toxicokinetics (TK) – study design and analysis
- PK/PD study design (modelling & simulation) and interpretation
- Quantitative Bioanalysis
- Customised laboratory services

Stand-alone or integrated DMPK/Drug Discovery Consultancy