



Preclinical Technologies

FACTSHEET



Aptuit's First in Man Enabling Service

Aptuit's First in Man enabling service is designed to provide a fully integrated preclinical drug development program to enable IND submission and First in Man dosing.

Our default strategy is based on ICH Guidelines (CPMP/ICH/286/95) for a pharmaceutical New Chemical Entity (NCE). This includes all mandatory toxicology and safety pharmacology evaluations, and although not specifically required for the Clinical Trial Authorisation (CTA) submission, a series of recommended *in vitro* metabolism studies to enhance the understanding of the candidate drug's pharmacokinetic profile, as well as to assess its metabolism and assist in toxicology species selection.

This strategy can be tailored to each project's specific needs.

Other families of compounds (e.g. biologics) or indications (e.g. oncology) warrant different strategies.

The Service

An experienced and dedicated Project Manager will be appointed to the First in Man enabling package and, under their guidance, a cohesive and highly effective project team will be maintained during all phases of the project. The project manager will serve as the primary point of contact for the team and will facilitate an open line of communication throughout the project life-cycle.

Our standard package for an NCE consists of a series of toxicological and pharmacological safety assessments, with options for individual studies or package for the First in Man enabling package itself to be tailored to specific client or compound requirements:

Toxicology (as recommended by the ICH M3 multidisciplinary guideline)

- Precursor rodent and non-rodent dose range findings
- Rodent and non-rodent repeated dose studies
- Supplemented with toxicokinetic sampling to provide exposure data to enable clinical doses selection

Genotoxicology (as recommended by ICH S2 guideline)

- Combination of *in vivo* and *in vitro* genotoxicity tests

Safety Pharmacology (as recommended by ICH-S7A and ICH-S7B guidelines)

- Core battery of respiratory, cardiovascular and CNS evaluations
- Assessment on the risk of QT prolongation

DMPK (as recommended by Aptuit)

- Species comparison: metabolic profiling
- Species comparison: protein binding

Bioanalysis and Formulation Analysis

- GLP validation of formulation analysis methods for dose analysis and stability studies
- GLP validation of preclinical bioanalytical methods and stability studies to FDA guidelines.
- Validation of human bioanalytical methods and support of clinical studies to ICH GCP and GCLP guidelines.

From the study reports, CTDs can be prepared that can be used for regulatory purposes. A range of supplemental offerings are also available on a finding or project basis.

Emerging Drug Technologies:

For biologics and biotechnology compounds, studies are performed according to the ICH S6 and ICH S8 guidelines. For example, repeat dose studies may only need to be performed in one mammalian species depending on the specificity of the molecule.

Vaccines and anticancer compounds are treated according to the CPMP/SWP/465/95 and CPMP/SWP/997/96 guidelines, respectively.

Taking advantage its immunology expertise, its immunoassay platform and its outstanding primate facilities, Aptuit is in the ideal position to support projects in areas where pharmacological targets are primate-specific (e.g. biologics, biotechnology derived products, oligonucleotides).



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Aptuit's First in Man Enabling Service...cont'd

Additional Services

- Toxicology - Additional toxicology studies e.g. 3 and or 6 month chronic tox studies
- Metabolism and pharmacokinetics to support Phase II clinical studies
- Bioanalysis - Provide sample analysis support for clinical stand-alone studies. Aptuit can refer clients to associated companies with worldwide phase I and clinical units. A phase I unit local to our bioanalytical facility enables fast sample turnaround for FIM studies.
- Formulation analysis and support - dedicated to the manufacture and quality control of test substances to support stand-alone clinical studies
- Clinical Study Monitoring, Pharmacokinetic/Pharmacodynamic Analysis and Report Writing
- Aptuit Consulting – Offer Regulatory Services: Pre-IND Meeting, IND Preparation and Submission, Investigators Brochure, and Phase I Clinical Protocol
- Pharmacology- Wide range of screening and in vivo models available to help determine the efficacy of new therapeutic entities.

Additional Aptuit Capabilities

Aptuit offers a comprehensive suite of drug development services that range from candidate selection through to market, including consultancy services, API development and manufacture, preclinical and clinical technologies, pharmaceutical services, large and small scale manufacturing, IVRS, and clinical packaging and logistics, across a wide range of compounds, dosage forms and delivery systems.

For information about Aptuit's services, please call or email:

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Engineering a better drug development process.

