Cytel
Shaping the Future
of Drug Development

Quantitative Pharmacology and Pharmacometrics

Exposure and dose response analyses, including pharmacokinetic and pharmacodynamics analyses, guide critical decisions in drug development. Cytel's expert Quantitative Pharmacology and Pharmacometrics group helps our customers get those decisions right.

The Cytel Difference

Cytel is the world's largest biometrics CRO and recognized leader in biostatistics and clinical trial design. Our experienced team of pharmacometricians, pharmacokineticists, biostatisticians and statistical programmers are all highly qualified with advanced degrees in mathematics or biostatistics. With a track record of success delivering a range of quantitative pharmacology and pharmacometrics solutions to global biopharmaceutical clients, we are a trusted partner for your PK and PD service requirements.

Our Services

Phase I Biometric Services

- Non Compartmental Analysis (NCA)
- PK Tables Listings and Figures
- PK section of Clinical Study Report
- Statistical analysis and reporting for first in human studies
- Trial Design
- Full Range of Statistical Services

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Quantitative Pharmacology and Pharmacometrics

Pharmacometrics Analyses

Quantitative PK/PD modeling is core to pharmacometrics, and an important discipline within model-informed drug development.

Services

- Population PK modeling including identifying significant covariates of exposure
- Exposure-response population modeling and simulation of safety/ and or efficacy endpoints
- Nonlinear modeling of biomarker to clinical endpoint relationships
- Model-based meta-analysis
- Risk-benefit assessments and identification of therapeutic index

Project Examples

- Leveraging the relationship between early biomarkers and clinical endpoints to optimize drug development plans
- Exposure-Response modeling using time-to-event data identifying therapeutic threshold response for direct and cumulative exposures
- Quantitative analyses and PK/PD modeling support for regulatory responses
- Pharmacodynamic modeling was used to identify threshold response separating new compound from standard of care
- Biomarker identification and validation using numerous techniques

Publications Database Development

Comparator data analysis and modeling provide a better understanding of a new compound's characteristics relative to competitors and support critical decision-making.

The clinical trial outcome database uses comprehensive literature data to address analysis modeling objectives. Cytel experts use a refined, tested process and powerful in-house productivity software PubCode to deliver an efficient solution.

Search Query Development

Abstract-based literature mining using client-specified public and proprietary data sources and search terms

Outcomes Database Development

Capture of clinical trial, treatment, patient and outcomes information

Source Database Development

Tabulation of search results and screening and selection of references

For more information email info@cytel.com