Simcyp Consortium

Research Areas

At a Glance

- Status: Active Consortium
- Year Launched: 2001
- Initiating Organization: Simcyp
- Initiator Type: Industry
- Location: Europe

Abstract

The Simcyp Consortium develops a user-friendly platform designed specifically to allow for simulations in representative virtual patient populations based on in vitro and clinical data. The Simcyp Population-based Simulator includes extensive demographic, physiologic, and genomic databases, which have allowed Simcyp to develop algorithms that account for patient variability. This enables the user to predict drug behavior in the virtual patient population, as opposed to a virtual reference man, allowing individuals at extreme risk to be identified. Currently, 70 percent of the top-40 pharma companies (including all of the top 10) are members of the Simcyp Consortium.

Mission

The Simcyp Population-based Simulator streamlines drug development through the modeling and simulation of pharmacokinetics (PK) and pharmacodynamics (PD) in virtual populations. The Simulator is the pharmaceutical industry’s most sophisticated platform for the prediction of drug-drug interactions and pharmacokinetic outcomes in clinical populations.

It incorporates numerous databases containing human physiological, genetic, and epidemiological information. By integrating this information with in vitro or clinical data, the Simulator allows for
prediction of PK/PD behavior in "real-world" populations. This automated prediction of in vivo outcomes accelerates the assessment of large numbers of compounds, saving time and cost.

The Simulator provides valuable information for key management decisions relating to clinical trial design, clinical trial avoidance, and drug-drug interaction (DDI) information for the Summary of Product Characteristics (SPCs) and Prescribing Information sheets.

The Simulator can also identify key preclinical data requirements, which can prove extremely valuable for redefining and optimizing early drug development processes and procedures.

Structure & Governance

Simcyp receives guidance from a board of world-renowned, independent scientists who are active in relevant research areas.

Impact/Accomplishment

Each year, consortium members are invited to a meeting at which they provide feedback on their use of the Simulator and suggest any features/improvements that they would like added to the platform.

At each meeting, the Simcyp team presents updates to the databases and Simulator as well as proposals for further development. The consortium members agree on and prioritize a list of features for the Simcyp team to work on.

Consortium members receive all new releases of the Simulator and have access to the Simcyp science team for consultancy on specific issues.

Each year consortium members are invited to Focus Group Meetings and webinars, which tackle specific problems in the area of in vitro-in vivo extrapolation (IVIVE).

The Simcyp team has received several awards over the years including the following:
Links/Social Media Feed

Homepage: http://www.simcyp.com/

Points of Contact

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Sponsors & Partners

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