

Enhanced Tools for Biopharmaceutics and Hepatic Clearance

Simcyp SIVA Version 5 brings significant upgrades to the SIVA Toolkit, enhancing data analysis of biopharmaceutic and cell line in vitro experiments which is essential to verify models prior to use in PBPK simulations and to provide reliable input parameters for such models. This version offers new models, improved functionalities, and an improved user experience, fully compatible with the Simcyp Simulator, Simcyp Discovery and Simcyp Biopharmaceutics Simulators.

Key Highlights

Biopharmaceutics Tools

CERTARA

Enhanced User Interface: Redesigned for a more intuitive experience.

Updated Models: Aligned with Simcyp v24.

Advanced Outputs: Customizable plots and tables for easy data import and export. View intermediate parameters such as time variant surface pH and solubility.

New Models in SIVA:

- Particle Population Balance (PPB)
- Salt Ksp Model with surface pH
- Solubility Factors for diprotic acids and bases

Dissolution and Solubility Tools:

Mechanistic dissolution modeling including simultaneous fit across multiple media.

Excipient Binding Models: Estimate drugexcipient binding for neutral and ionized species (e.g., cyclodextrins or Tweens).

Precipitation: Model precipitation in various experimental setups including dynamic transfer and media change experiments (with absorptive sink if required).

Dosing Options: Model solutions, suspensions, or immediate release formulations.



Key Features

- **1. Customizable Outputs:** Detailed plots and tables for record keeping.
- **2. Dual Solid States:** Model precipitation from amorphous to crystalline forms.
- **3. Flexible Dosing:** Available as amorphous, free form, salt or mixed dosage forms (e.g., where crystallization or disproportionation has occurred in storage).
- **4. Surface pH and Solubility:** Consideration for all compound types and salts.
- 5. Advanced Particle Size Distribution Tools: Import and map particle size data.
- 6. Improved fitting Algorithms: Updated to the latest Parameter Estimation standards within the Simcyp Simulator.

IVIVE of Hepatic Clearance

New Species: Includes monkey species for hepatic clearance predictions.

Updated Human, Dog and Rat Models: Updated physiological values used for scaling.

General Enhancements

Run virtual In Vitro Experiments: Simulate various 'what-if' scenarios.

Improved Fitting Algorithms: Latest updates for enhanced performance.

Installation & Support

Easy Installation: Use the provided installer for best results.

For more questions or additional information about the SIVA Toolkit, click here



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