SimulationsPlus

GastroPlus®

PDPLUS™

Automated model selection – fit across all direct, indirect, phase-nonspecific cell killing, bacteria killing PD models with a single mouse click to extend your PBPK models in GastroPlus® and easily find relationships between the pharmacodynamics and pharmacokinetics of your compound using plasma and/or tissue concentration profiles!

What is the PDPlus™ module?

The PDPlus™ Module allows you to fit standard pharmacodynamic (PD) models to observed data and to then use the fitted models to predict PD effect changes due to changes in dose, dosage form, and dosing regimens.

The PDPlus™ Module adds the Pharmacodynamics Table, which contains the PD model, the site of PD action, and the parameters that determine the kinetics of the action. Multiple PD models (therapeutic and adverse) can be accommodated for each drug record.

Pharmacodynamic Models

With PDPlus, fitting pharmacodynamic models to observed effect data is quick and easy. You may fit any of the standard PD models:

- ✓ **Direct Link:** Linear, Log Linear, E_{max} and Sigmoid E_{max}
- ✓ **Indirect Link:** Effect Compartment, Indirect Class I-IV, Cell Killing: Phase-nonspecific
- ✓ **Intraocular Pressure Model**
- ✓ **Precursor-dependent Indirect Models (Class V-VIII)**

Convenient plotting of both plasma concentration vs. time and effect vs. time or concentration is provided with absolute and log plots available for each.

The effect can be linked directly to drug concentration in a specific tissue to easily perform PBPK & PD modeling.

Interested in collaborating?

Email us! info@simulations-plus.com

simulations-plus.com/gastroplus

Rev. 12/06/2023