



ADDITIONAL DOSAGE ROUTES:

DERMAL

The Transdermal Compartmental Absorption & Transit (TCAT™) model represents the skin as a collection of the following compartments: stratum corneum, viable epidermis, dermis, sebum, hair lipid, and hair core.



The model can simulate a variety of transdermal and topical dosage forms, specified at different places on the body, including:

- ✓ Liquid formulations:
(solutions, lotions, patch, suspensions)
- ✓ Semi-solid formations:
(gels, creams, lotions, pastes)

Some of the processes considered in the dermal models include:

- ✓ Vehicle and compound evaporation
- ✓ Absorption from the vehicle into the various tissue regions
- ✓ Model *in vitro* dermatomed skin using the TCAT model
- ✓ Systemic circulation and lymphatic absorption
- ✓ Drug partitioning and diffusion through different skin layers and compartments (stratum corneum, viable epidermis, dermis, sebum, hair)



Utilize validated PBBM models

Mechanistic models are provided for multiple animals + humans



Customize in GastroPlus®

As with other GastroPlus modules, there is no equation or code writing required.



Optimize your models

Load measured *in vivo* PK data, for local tissues, to optimize and validate your models.



Leverage all simulation modes

All functionality, including the Population Simulator and Parameter Sensitivity Analysis, can be utilized.



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Interested in collaborating?



Email us! info@simulations-plus.com