www.simulations-plus.com

SimulationsPlus

Quantitative Systems Pharmacology (QSP) **Psoriatic Arthritis Model**

Over 30 Phase 2 and Phase 3 clinical trials were used in training this model, spanning 14 district therapeutic agents, including TNF inhibitors, IL-17 inhibitors, IL-23 inhibitors, as well as JAK and TYK2 inhibitors in multiple patient populations (ex: naïve to biologic therapies).

Key Applications

- Support customized pre-trial disease initiation and therapy pipeline failures
- Predict clinical efficacy of novel compounds
- Export data to other programs for ad hoc analysis

Key Features

- Convenient generation and calibration of virtual populations that include inter-patient variability in pathphysiology as well as clinical endpoints
- Includes qualitative and quantitative data during model training
- Flexibility in trial pipeline specificiation allows for customized predictions of novel compounds in a virtual population calibrated to hundreds to thousands clinical trial datapoints
- A single, unified platform to generate virtual populations, simulate trials, analyze simulations, and generate informative plots allowing easy comparison to published trials to support pre-clinical decision making

Validated virtual population with new biological and pharmacological components can include novel compound predictions while recapitulating and validating against existing clinical trial data.

Sound Science

Leverages

domain knowledge in both rheumatoid arthritis and psoriasis to simulate immunological species, their interactions, and therapeutic interventions in both the joint and skin environments specific to psoriatic arthritis patients

Integration

of biological and clinical trial data to provide predictions of common clinically-relevant biomarkers and trial endpoints for novel compounds, including ACR and PASI scores

Capability

of physiological modelling and efficacy predictions for both topical and systemic administration routes

Customization

of population characteristics to meet client-specific criteria or produce common trial populations such as biologic naïve or anti-TNF therapy non-responders

Connect with us:

+1-984-444-8305

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