

DEVELOPMENT SCIENCES: Innovation & Technology

TITLE

Predicting Risk for Drug-Induced Liver Injury (DILI) for Small Molecule Therapeutics

SUMMARY

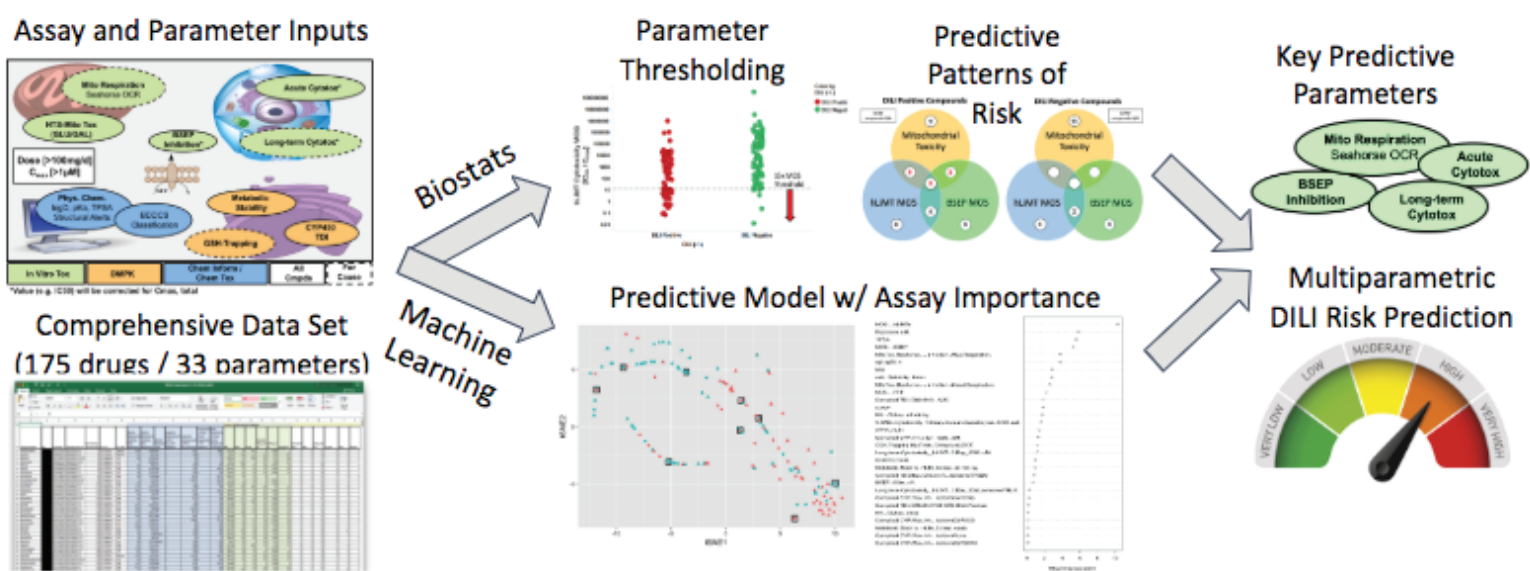
Drug-induced liver injury (DILI) remains a major source of clinical attrition. This is due to the many different etiologies (causes) of DILI & poor concordance of preclinical species to predict DILI. As such, in vitro assays/parameters are poorly predictive in isolation, making risk assessment difficult. This project focuses on using machine learning in combination with traditional biostatistical approaches to identify key predictive assays/parameters and build an integrated multiparametric DILI risk mitigation strategy.

IMPACT

- Identify key assays / parameters that are predictive of DILI
- Refine drug-discovery small molecule safety screening processes
- Risk mitigation strategy for DILI for small molecule drug discovery

How it's done:

- **Biostatistics supported by machine learning** to determine predictive parameters to employ during small molecule discovery
- **Determined patterns of risk** that predict DILI
- **Ongoing work** to expand data set to bolster computational modeling efforts



CONTACT

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