Drug-Drug Interaction Risk Calculator 2.0

Reduce drug development risk and protect patient safety

- Enables fast and confident DDI predictions
- The most comprehensive victim and perpetrator dataset in a single solution
- Co-developed with Principal DMPK Scientists in global pharma companies, making it both powerful and user-friendly

Predictions of harmful Drug-Drug Interactions (DDIs) early in during development reduce the need for costly clinical DDI studies, optimize the design of clinical trials, and reduce the risk of unexpected post-market adverse events.

However, making these predictions at a high level of confidence typically requires manual searches for data, which can be time consuming and carries risks of missing important information. In addition, conducting analyses against a wide range of co-medications can be a challenge.

PharmaPendium’s Drug-Drug Interaction Risk Calculator 2.0 (DDIRC 2.0), which is part of the PharmaPendium DMPK solution provides a faster and more reliable method of predicting DDIs using a mechanistic static model compliant with the 2020 In vitro Interaction studies FDA guidance.

Best-in-class risk prediction

DDIRC’s comprehensive dataset and user-friendly interface allow researchers to calculate AUC ratio to assess the risk of DDIs between a drug candidate and potential co-medications (marketed drugs) before phase I clinical trial but as well in phase II/III clinical trial.

It quickly identifies potential metabolism-based DDIs, which can inform critical decisions about which drugs to advance, what clinical phase I DDI studies to perform, and which mitigation strategies to follow for inclusion/exclusion of patients in clinical phase II/III based on co-medications.

“DDIRC one of the best DDI prediction tools for scientists”

—Department Head Pharmacokinetics and Drug Interaction, Global Pharma Company
“You get much more information about DDIs in a shorter amount of time.”
—Principal Scientist, Global Pharma Company

Powerful and easy to use:
- **Enter data easily** — Guided data entry forms and automated data loading makes the tool easy to use and shortens the learning curve
- **Predict AUC ratio accurately** — Mechanistic static model FDA compliant supporting induction and inhibition of gut and liver metabolic enzymes (CYPs and UGTs)
- **Quickly identify harmful interactions** — Advanced visualization (Forest Plot) and filters supports the quick identification of drug-drug interaction risk
- **Store and compare predictions** — The calculator’s project environment stores results of multiple simulations during the drug development process.
- **Connectivity with PharmaPendium** — DDIRC enables the quick validation of results by cross-referencing with PharmaPendium’s rich set of data sources
- **Access to underlying data** — The ability to view the data underlying the DDI predictions helps build confidence in the calculations

### Dataset included in DDIRC

<table>
<thead>
<tr>
<th>FDA victims probes (CYPs) – 100% coverage</th>
<th>Overall marketed victim drugs – 400</th>
<th>FDA perpetrator probes (CYPs) – 100% coverage</th>
<th>Overall marketed perpetrator drugs – 600</th>
<th>Therapeutic classes covered – 158</th>
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**Created in partnership with global pharma companies**

DDIRC was created in partnership with seven of the leading pharma companies in the world, ensuring that the calculator has enough power and usability to make a marked impact in improving patient safety outcomes and reducing risk.

For more information or to request a PharmaPendium demo, visit [elsevier.com/solutions/pharmapendium-clinical-data/dmpk](http://elsevier.com/solutions/pharmapendium-clinical-data/dmpk)

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