

## The challenges of decision making using uncertain data

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### Abstract

The drug discovery process is one of multi-parameter optimisation, as we search for compounds that exhibit the right balance of properties necessary for them to become successful drugs. However, all the data we work with in drug discovery come from models, be they *in vivo*, *in vitro*

or

*in silico*

, and are prone to experimental variability or statistical errors. Unfortunately, this information about the uncertainties in our data is often ignored during the decision making process. Here we highlight the dangers of not taking these errors into consideration as we prioritise and select compounds. We describe methodologies we can adopt to include this information in our prioritisation processes and highlight, with examples, the different conclusions we can reach as a result.

You can download this presentation as a [PDF](#) .