

# Overcoming Psychological Barriers to Good Decision-making in Drug Discovery

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Matt gave this presentation at the Keystone Symposium, Addressing the Challenges of Drug Discovery 2011.

## Abstract

Better individual and team decision-making could enhance drug discovery performance. Reproducible biases effecting human decision making, known as cognitive biases, have been understood by psychologists for at least half a century. These threaten objectivity and balance and so are credible causes for continuing unpleasant surprises in late development and high operating costs of compound discovery. We will consider the risks to R&D decision-making for four of the most common and insidious cognitive biases: confirmation bias, poor calibration, availability bias and an excess focus on certainty. We will suggest approaches for overcoming these, such as strategies adapted from evidence-based medicine and computational tools that seek to guide the decision making process. These include methods for multi-parameter optimisation that encourage objective consideration of all of the available information and explicit consideration of the impact of uncertainty in drug discovery.

These are the slides that Matt presented.

A copy of Matt's slides is available as a [PDF](#) file.