

**DEVELOPING KINASE TOOLS FOR DRUG DISCOVERY**

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Protein kinases play a pivotal role in the regulation of a diverse range of cellular functions. It is therefore unsurprising that mutation and/or mis-regulation of these enzymes have increasingly been found to be causal in human diseases such as cancer, diabetes, heart disease and arthritis. Despite being obvious targets for therapeutic intervention, it was initially thought that due to their structural and mechanistic similarities, it would be difficult to generate drug selectivity.

In this poster we will examine the recent progress in developing drugs that target protein kinases for the treatment of a wide variety of clinical indications. The value of using lead profiling strategies to rapidly characterise inhibitor compounds identified in high throughput screening (HTS) will be explored. Data from Upstate's own flexible lead profiling service, KinaseProfiler™, which is composed of a diverse array of protein kinases will be presented.