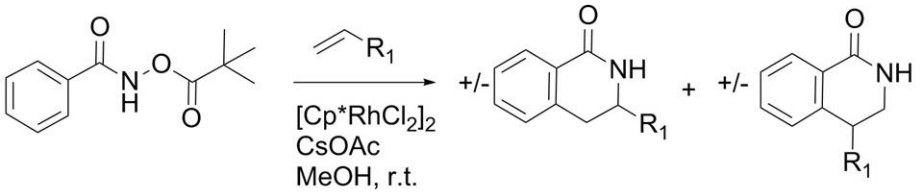
OPPORTUNITY KNOCKS: ORGANIC CHEMISTRY FOR FBDD

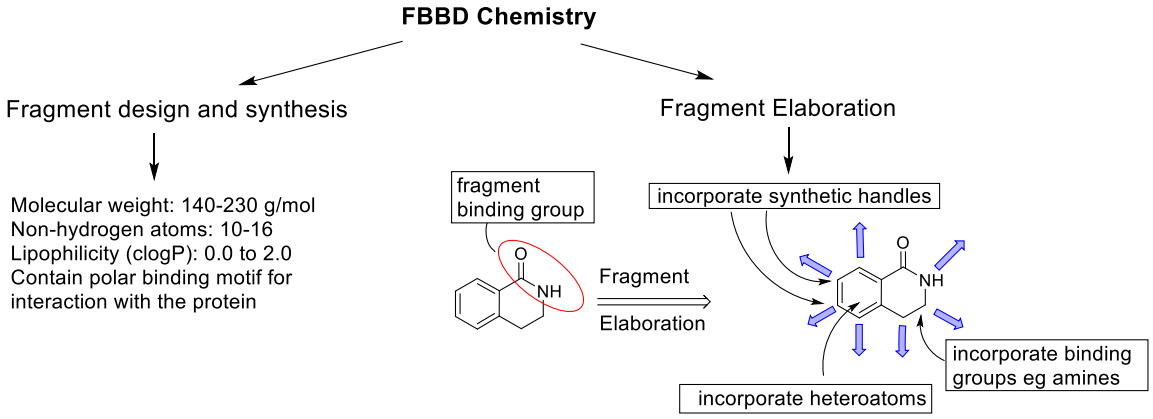
David Rees, Astex, Cambridge, UK

Frequently, synthesis is a bottleneck in our FBDD projects. Despite the small size, apparent simplicity and the commercial availability of many fragment-like molecules, we need help from the organic chemistry community for:

- Methodology exemplified with polar functional groups (*e.g.* amines) and heterocycles
- Methodology exemplified for water soluble, low logP fragment-like compounds
- Multiple, synthetically accessible growth points to allow fragment-to-lead elaboration

This presentation illustrates these points by synthesising new fragments for our library utilising recent rhodium (III) C-H bond activation and cyclisation chemistry to deliver substituted dihydroisoquinolones:





References

Rees and Murray (2016) "Opportunity Knocks: Organic Chemistry for FBDD" *Angew. Chem. Int. Ed*., 55, 488.

Rees et al (2016) "Design and synthesis of dihydroisoquinolones for FBDD" *Org. Biomol. Chem.*, 14**,** 1599.