Ion Channel Drug Discovery

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Cys-loop receptor family

- Cys-loop receptors consist of $\text{GABA}_A$, nicotinic, $5\text{-HT}_3$ and glycine receptors

- Anxiety, sleep disorders, epilepsy
- BDZ sensitive receptors
**GABA\(_A\) receptor subtypes mediate distinct physiological effects**

The development of subtype selective agents is necessary and challenging but will reduce unwanted effects.
Evaluation of agents using behavioural and neurochemical methods

Other behavioural assessments including anxiety, memory and learning

Neurochemical assessments including binding, autoradiography and immunohistochemistry

In vitro functional assessment of agents using 2-electrode voltage clamp methods
What we would like from DDI

- DDI PhD scholarships
- High-throughput screening capabilities
- Access/collaborations using slice electrophysiology
- Access/collaborations in other behavioural models
- Access to ADME