

26/11/20

Updates on GPCR constraint

- Paper draft & timeline
- Drug target information
- IMPC phenotyping
- Isoforms

Drug target information

- For up-to-date information extracted approved and investigational drugs from DrugBank
- Slight changes to drug data from Congreve 2019

IMPC phenotyping

- Lethal = 'preweaning lethality'. Allow incomplete/complete penetrance
- Apparent focus on understudied receptors: ~40 orphan receptors, 8 chemokines, few aminergics
- Therefore highly relevant to focus of paper on understudied receptor. Where constraint and orphan receptors agree seems likely that these receptors are of high importance.

Isoforms

- Majority (62%) of GPCRs have only one isoform, and majority of isoforms differ only at C & N terminal truncations
- Therefore expressed non-canonical isoforms are unlikely to have different effects to the canonical
- Might be worth looking at some GPCRs that do show functional alternative splicing e.g. CNR1