Tentative Outline
Special Issue for Current Medicinal Chemistry

Guest Editor: Stuart R. Maudsley

Into the higher dimensional spectrum of G protein-coupled receptor signaling

Aims & Scope:

The overall aim of this thematic issue will be the communication, to both a general and specific scientific audience, of the importance of investigating, understanding and exploiting of the broad potential spectrum of G protein-coupled receptor (GPCR) signaling modalities.

This thematic issue, with at least 10 original contributions will represent a broad cross section of issues pertaining to the investigation of non-G protein-dependent signaling modalities in GPCR biology. It will be important for this thematic issue to cover aspects of: medicinal chemistry and therapeutic design; in vitro signaling measurement; high-dimensionality data investigation of signaling bias; theoretical analyses of signaling bias; therapeutic translation from in vitro to in vivo settings; the molecular structural bases of GPCR signaling bias and of course clinical pharmacological relevance of biased agonism.
Topics to be covered (main bioactive component):

- Theoretical Investigation and Predictions of Bias
- Structural Investigation of Receptorsome-based creation/delineation of Bias
- Novel experimental approaches to assessing and quantifying Bias
- Modulation of Bias through perturbagens (ligands/allostery/context/pathology)
- Translation of Biased signaling from in vitro to in vivo
- Potential Clinical impact of GPCR signaling Bias

Keywords:

Receptor, Bias, Signaling, Structure, exploitation, therapeutic, spectrum

Schedule:

August 2018.