DESCRIPTION

An essential outline of the main facets of polypharmacology in drug discovery research

Extending drug discovery opportunities beyond the "one drug, one target" philosophy, a polypharmacological approach to the treatment of complex diseases is emerging as a hot topic in both industry and academic research. Polypharmacology in Drug Discovery presents an overview of the various facets of polypharmacology and how it can be applied as an innovative concept for developing medicines for treating bacterial infections, epilepsy, cancer, psychiatric disorders, and more. Filled with a collection of instructive case studies that reinforce the material and illuminate the subject, this practical guide:

• Covers the two-sided nature of polypharmacology—its contribution to adverse drug reactions and its benefit in certain therapeutic drug classes

• Addresses the important topic of polypharmacology in drug discovery, a subject that has not been thoroughly covered outside of scattered journal articles
Overviews state-of-the-art approaches and developments to help readers understand concepts and issues related to polypharmacology.

Fosters interdisciplinary drug discovery research by embracing computational, synthetic, in vitro and in vivo pharmacological and clinical aspects of polypharmacology.

A clear road map for helping readers successfully navigate around the problems involved with promiscuous ligands and targets, Polypharmacology in Drug Discovery provides real examples, in-depth explanations and discussions, and detailed reviews and opinions to spark inspiration for new drug discovery projects.

### ABOUT THE AUTHOR

Jens-Uwe Peters, PhD, works in the Medicinal Chemistry Department at F. Hoffmann-La Roche. In his ten years at Roche, he has been involved in numerous drug discovery projects, has contributed to Early Safety Profiling initiatives, and has researched opportunities for polypharmacological drug discovery. Dr. Peters is author or coauthor on twenty-six journal papers and is named on twenty-two patents.