DESCRIPTION

Edited by two renowned medicinal chemists who have pioneered the development of personalized therapies in their respective fields, this authoritative analysis of what is already possible is the first of its kind, and the only one to focus on drug development issues.

Numerous case studies from the first generation of "personalized drugs" are presented, highlighting the challenges and opportunities for pharmaceutical development. While the majority of these examples are taken from the field of cancer treatment, other key emerging areas, such as neurosciences and inflammation, are also covered.

With its careful balance of current and future approaches, this handbook is a prime knowledge source for every drug developer, and one that will remain up to date for some time to come.

From the content:

* Discovery of Predictive Biomarkers for Anticancer Drugs
* Discovery and Development of Vemurafenib
* Targeting Basal-Cell Carcinoma
* G-Quadruplexes as Therapeutic Targets in Cancer
* From Human Genetics to Drug Candidates: An Industrial Perspective on LRRK2 Inhibition as a Treatment for Parkinson's Disease
* Therapeutic Potential of Kinases in Asthma

* DNA Damage Repair Pathways and Synthetic Lethality

* Medicinal Chemistry in the Context of the Human Genome

and many more

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### ABOUT THE AUTHOR

**Karen Lackey** is currently the founder and Chief Scientific Officer of JanAush, a drug discovery company focused on creating life-saving medicines in inflammation, oncology, and kinase and signal inhibition. She joined Hoffmann-La Roche in 2010 as Vice President and Head of Medicinal Chemistry at the Nutley, NJ (USA) site, where she was responsible for oncology, inflammation, virology and new technologies until the site closure in 2013. In her previous role, she was the Vice President of Chemistry, Molecular Discovery Research for GlaxoSmithKline. Most importantly, she played an active role in the discovery of the dual erbB2/EGFR tyrosine kinase inhibitor, lapatinib, currently marketed as Tykerb. Karen has over 85 publications and patents, principally covering oncology, inflammation, kinase inhibition, gene family molecular design and cellular signaling.

**Bruce Roth** is currently Vice President of Discovery Chemistry in Genentech Research and Early Development at South San Francisco (USA). Prior to joining Genentech in 2007, he was Vice President of Discovery Chemistry at the Pfizer Global Research and Development Ann Arbor site. Bruce began his career as a medicinal chemist at Warner-Lambert, Parke-Davis in 1982 and is best known as the inventor of Lipitor (atorvastatin calcium), for which he has received numerous awards, including the 2003 American Chemical Society Award for Creative Invention, the 2003 Gustavus J. Esselen Award and the 2013 Perkin Medal. In 2008 he was named one of the American Chemical Society's Heroes in Chemistry.

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