Journal of
Medicinal
Chemistry
Book Review

Theilheimer's Synthetic Methods of Organic Chemistry. Volume 75. Edited by Gillian Tozer-Hotchkiss. S. Karger AG, Basel, Switzerland. 2009. xix + 474 pp. 16 × 23 cm. ISBN 978-3-8055-9390-8. $790.00.

This second volume of *Theilheimer* for 2009 contains abstracts of new synthetic methods and supplementary data from papers published up to June 2009. It also contains the customary "Advice to the User" and "Further Trends and Developments in Synthetic Organic Chemistry" sections in addition to a 23-page index of reviews of synthetic organic chemistry published up to and including September 2009 and an extensive 55-page reaction starting material and product index.

Jonathan L. Vennerstrom

College of Pharmacy
University of Nebraska Medical Center
Omaha, Nebraska 68198-6025

DOI: 10.1021/jm1003733
Published on Web 04/01/2010

Kinase Inhibitor Drugs. Edited by Rongshi Li and Jeffrey A. Stafford. John Wiley & Sons, Hoboken, NJ. 2009. xv +510 pp. 16 × 24 cm. ISBN 978-0-470-27829-1. $125.00.

This book delivers what the title promises: a comprehensive treatment of drugs that inhibit kinases. The first chapter, which describes the discovery of sunitinib, includes a very useful historical context for the whole field of kinases and kinase inhibitors. The next 13 chapters cover the discovery and development of other kinase inhibitors that are either approved or progressing through clinical trials.

Of more general interest are the discovery stories that are presented in these chapters. They encompass the biology, medicinal chemistry, pharmacokinetics, and clinical trials that go into the discovery, development, and approval of new drugs. They illustrate the varied strategies that go into target validation, screening, lead discovery, lead optimization, and candidate selection. Most of these stories make fascinating reading because they describe the obstacles that have been encountered and overcome on the path to new drug development.

The book concludes with chapters that treat pharmacogenomics, computational chemistry, homology modeling, fragment-based drug discovery, and structural biology as they apply to development of kinase inhibitors.

Color figures are grouped in a 16-page section in the middle of the book; grayscale versions of these figures appear within the chapters. The organization, editing, and production of the book are well executed. Over 500 kinases have been identified, and at least half of them are considered possible drug targets, so issues of inhibitor selectivity and cross-susceptibility arise frequently. Thus, the book will be interesting to any chemist or biologist desiring a behind-the-scenes look at modern strategies of drug discovery and their practical applications to some challenging targets.

D. Eric Walters

Department of Biochemistry and Molecular Biology
Chicago Medical School
Rosalind Franklin University of Medicine and Science
North Chicago, Illinois 60064
E-mail: Eric.Walters@rosalindfranklin.edu

DOI: 10.1021/jm100419m
Published on Web 04/14/2010