Drug Development and Industrial Pharmacy, 31:471, 2005
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ISSN: 0363-9045 print / 1520-5762 online
DOI: 10.1081/DDC-200054317

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Book Review

Drug Discovery for Nervous System Diseases; Franz F. Hefti. 319 pp.; Paperback. ISBN 0-471-46563-1; Wiley-Interscience, Hoboken, NJ, 2004.

Drug discovery is a rapidly evolving field of research. For decades, it was a labor-intensive and extremely expensive enterprise. However, the sequencing of the genome and the discovery of molecular mechanisms underlying certain disease states, combined with the biotechnology boom of the 1990s and early twenty-first century, offers great promise for the discovery of more effective treatments for various diseases. It will take a collaborative effort from scientists of varying backgrounds to realize this promise. Dr. Franz F. Hefti, in his book *Drug Discovery for Nervous System Diseases*, offers an outstanding overview of the current state of drug discovery for these diverse groups of individuals.

In many ways, the discovery of agents for the treatment of psychiatric and neurological diseases lags behind the discovery of agents that are effective for the treatment of various other human conditions. This is, at least in part, due to the complexity of the nervous system, our relatively poor understanding of the mechanisms underlying these disease states, and ethical considerations associated with the administration of psychoactive drugs.

The early chapters of the book present an introduction to basic principles in pharmacology and drug discovery. Dr. Hefti carefully evaluates the utility and pitfalls associated with various methods commonly employed in drug discovery. Subsequently, the principles introduced in the early chapters are discussed in the context of specific diseases: schizophrenia, depression, anxiety disorders, Alzheimer's disease, Parkinson's disease, stroke and injury, neurodegenerative disorders, sleep disorders, epilepsy, and pain. Within each later chapter is a discussion of existing, validated drug targets and the identification of rational targets for future drug discovery research. In addition, existing animal models of disease states are discussed, often with attention to the importance, utility, and limitations of these models. Each chapter is well organized and includes informative, easy-to-understand figures.

The text should prove to be interesting reading for advanced undergraduate and graduate students interested in drug discovery.

Kevin K. Caldwell, Ph.D.
University of New Mexico School of Medicine
Albuquerque, NM

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