Essential Psychopharmacology: Neuroscientific Basis and Practical Applications


The language and neurobiological concepts behind contemporary psychopharmacology and neuropharmacology are sometimes confusing to the practicing psychiatrist. Rapid advances in knowledge about the molecular biology of the CNS have aggravated this problem.

Once these basic concepts are understood, the physiology and pharmacology are quite logical and easily grasped. Thus, a premium is placed on relatively short, basic textbooks that update the practitioner on the “new” neurobiology.

Essential Pharmacology by Stephen M. Stahl, M.D., Ph.D., is such a book. It is a clearly written, introductory textbook that can be used as the first textbook for a student or as a quick review and update for a physician with prior background in the field.

A unique advantage provided by Dr. Stahl is the linking of ideas to an abundance of high quality color graphics and cartoons that convey the essence of the concept or mechanism and that are presented with a sense of humor. These unique cartoons and simplified diagrams help make the text clear, telegraphic, and enjoyable to read. The text is organized around chapters dealing with principles of neurotransmission, receptor properties and function, and altered neurotransmission in disease states. This is followed by a discussion of the neuropharmacology of classes of psychotropic drugs (e.g., antidepressants) and neurobiological hypotheses regarding the etiology of major psychiatric syndromes.

The Biochemical Basis of Neuropharmacology, 7th ed.

by Jack R. Cooper, Ph.D., Floyd E. Bloom, M.D., and Robert H. Roth, Ph.D.

This concise monograph has been a classic reference on neurochemistry, neuropharmacology, and behavior for several generations of undergraduate and postgraduate students. For 20 years, I have used the book to teach medical students the fundamentals of neuropharmacology and its relationship to psychiatric and neurologic disease.

It is an excellent short text for the practicing psychiatrist to keep at hand when reading the psychiatric literature or dealing with questions or other published information about the clinical pharmacology of psychotropic drugs.

One of the most rapidly advancing areas of knowledge about neurobiology is the molecular biology of the central nervous system. Rewritten introductory chapters on the cellular and molecular foundations of neuropharmacology cover this material with clarity. Two excellent chapters follow on receptors and on the modulation of synaptic transmission. The information in these chapters is essential for understanding the mechanism of action of psychotropic drugs.

In individual chapters, the book then deals with each of the several major neurotransmitter systems, and it concludes with a chapter on treating neurologic and psychiatric diseases. This classic monograph should be on the bookshelf of every practicing psychiatrist.