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The GABA Receptors

Third Edition

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This volume is the third edition of a monograph series that was first published in 1983. The demand for this work is a testament to the impact of studies on \( \gamma \)-aminobutyric acid (GABA) receptors on the basic understanding of synaptic transmission and on defining the clinical importance of the neurotransmitter system. Chronicled in *The GABA Receptors, Third Edition*, are the advances made in understanding the molecular and pharmacological properties of \( \text{GABA}_A \) and \( \text{GABA}_B \) receptors since the topic was last reviewed in 1996. Particular emphasis is placed on describing the assembly, structure, and function of \( \text{GABA}_B \) sites, the first heterodimeric G protein-coupled receptors identified in vivo. In addition, there are reports dealing with the subunit composition, trafficking, and pharmacological selectivity of \( \text{GABA}_A \) receptors. Aside from providing insights into the fundamental properties of ligand-gated ion channels and second messenger systems, the findings detailed in this work point the way for developing novel therapeutics capable of more selectively manipulating these transmitter sites. Chapters in this volume contain descriptions of new agents, including allosteric modulators, capable of activating or inhibiting GABA receptors. Descriptions are provided of potential clinical candidates for treating disorders as diverse as insomnia and cognitive impairments. The reports contained herein also detail new evidence directly linking \( \text{GABA}_A \) and \( \text{GABA}_B \) receptor dysfunctions to a host of neuropsychiatric conditions, including epilepsy, anxiety disorders, affective illness, and pain syndromes. These data provide a biological framework for understanding the clinical utility of GABAergic drugs as treatments for neurological and psychiatric disorders, and for their use as hypnotics and anesthetics.

Numbered among the contributors to *The GABA Receptors, Third Edition*, are many who have worked in this area for decades. All of the senior authors have been actively engaged in studying GABA receptor systems and are recognized for making seminal contributions to the field. In addition to highlighting advances over the past 10 years, the authors provide opinions on the implications of these findings and suggestions on fruitful avenues for future research. As was the case for the previous two editions, the aim of this volume is to not only serve as an information source, but as a stimulus for further advances in the field. This offering should be of particular value to basic and clinical neuroscientists in general, and neuropharmacologists, psychiatrists, and neurologists in particular.

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