This second edition provides an abundance of new information across the spectrum of GABA research, aiding in the synthesis and development of new drugs that interact with the GABA neurotransmitter system. It has been discovered that the sensitivity of the $GABA_A$ receptor is modulated by certain steroids, revealing yet another approach to the manipulation of this system. Such information has provided a more precise characterization of the mechanism of action of established drugs and has been used to design novel and more selective therapeutics.

The contents of this book are as follows:

—Structure and function of GABA reuptake systems.
—Diversity in structure, pharmacology, and regulation of $GABA_A$ receptors.
—$GABA_A$ receptor agonists, partial agonists, and antagonists.
—Pharmacology of mammalian $GABA_A$ receptors.
—The interaction of intravenous anesthetic agents with native and recombinant $GABA_A$ receptors: an electrophysiological study.
—Electrophysiology of $GABA_B$ receptors.
—Pharmacology of mammalian $GABA_B$ receptors.
—Cellular and biochemical responses to $GABA_B$ receptor activation.
—Biochemical and molecular properties of $GABA_B$ receptors.
—Chemistry of $GABA_B$ modulators.
—Molecular biology, pharmacology, and physiology of $GABA_C$ receptors.

This volume will serve as a guide to the direction of future research in the area, and the information provided will be of particular interest to neurobiologists, pharmacologists, medicinal chemists, and neurophysiologists.

PII: S0960-0760(98)00107-1

TUMOR MARKER PROTOCOLS. Edited by M. Hanausek and Z. Walaszek. 'Methods in Molecular Medicine' series edited by J. M. Walker. Humana Press, Totowa, 1998, 512 pp. ISBN: 0-89603-380-5, US$99.50.

The development of cancer is a slow process and it can take several years before a tumor becomes clinically evident, at which time it is often already beyond the reach of therapeutic strategies. Progress in reducing cancer mortality is dependent to a great degree on its early detection and prevention, and in the last decade there have been many reports dealing with tumor markers and many simple, noninvasive diagnostic tests are becoming available to detect the early signs of neoplasia.

This book aims to cover the major contemporary methods that have steadily broadened our understanding of early cancer formation, as well as to provide powerful routes to the detection and discovery of new cancer markers, particularly molecular tumor markers. It is divided into five main parts and the majority of the chapters are written as regular protocols, each followed by notes on critical points and issues. The contents are as follows:

Part I. Multiple Markers: Principles and Guidelines.
—Integrating multiple clinical tests to increase predictive power.
—Statistical considerations in the analysis of tumor markers.
—Selection and development of biomarkers for bladder cancer.
—Clinical application of tissue and serum markers in breast cancer.

Part II. Immunodiagnosis of Cancer: Serum and Tissue Markers.
—Serum and tissue biomarkers in the prognosis and treatment of breast cancer.
—The oncofetal protein p65 in breast cancer detection.
—Determination of tumor ferritin concentration in breast cancer.
—Immunodiagnosis of childhood malignancies.
—Immunohistochemical evaluation of biomarkers in prostatic and colorectal neoplasia: principles and guidelines.
—Factors affecting immunohistochemical evaluation of biomarker expression in neoplasia.

—Instrumentation, accuracy, and quality control issues in development of quantitative fluorescence-image analysis (QFIA).

Part III. Cytogenetic Markers.
—Cytogenetics as a diagnostic aid for childhood hematologic disorders: conventional cytogenetic techniques, fluorescence *in situ* hybridization, and comparative genomic hybridization.
—Preparation of metaphase chromosomes for cytogenetic analysis.
—Chromosome staining and banding techniques.
—Fluorescence *in situ* hybridization to chromosomes.
—Detection of rearrangements in the *bcl*-2 gene using the polymerase chain reaction.

Part IV. Molecular Markers.
—Applications of tissue microdissection in molecular pathology: principles and guidelines.
—*EWS* gene fusions as diagnostic markers in sarcomas: principles and guidelines.
—p53 Detection in breast cancer.
—Use of the polymerase chain reaction technique to detect the t(14;18) translocation in lymphoid tissue.
—Detection of *ras* gene mutations using oligonucleotide ligation technology.
—Detection of prostate-cancer cells in blood and bone marrow by RT-PCR.
—Quantitative, competitive RT-PCR analysis of biomarkers in the study of neoplasia.
—Different display to define molecular markers and genes that mediate malignancy.

Part V. Miscellaneous Markers and Early Detection of Cancer.
—Transforming growth factor beta: a plasma tumor marker.
—Anti-HMdU autoantibodies in human sera as a biomarker of cancer risk.
—A scientific basis for cancer prevention: defining the role of individual cytosolic GST isozyme.
—Aberrant crypt foci system to study cancer preventative agents in the colon: principles and guidelines.

This book would be useful for general clinicians, oncologists, and biologists, as well as for advanced students.

PII: S0960-0760(98)00108-3

CANCER THERAPEUTICS. Experimental and Clinical Agents. Edited by Beverly A. Teicher. Humana Press, Totowa, 1997, 464 pp. ISBN: 0-89603-460-7, US$125.50.

This book, written by leading researchers in the field, covers nearly a century of focused effort by scientists and physicians to develop pharmacologic means to cure the many diseases called cancer, and is a comprehensive review of existing and potential anticancer drugs and therapies. At a critical time in the development of novel cancer treatments, the authoritative contributors shed light on the current status of the major molecules of cancer treatment, and provide cancer researchers and physicians with essential insight into accomplishments and advances in the experimental therapy of cancer. There are two parts containing a total of 19 chapters as follows:

Part I. *Cytotoxic agents: old and new.*
—Nitrogen mustards.
—Phosphoramide and oxazaphosphorine mustards.
—Development of the nitrosoureas.
—Platinum complexes: Anthracyclines.
—Topoisomerase I inhibitors.
—DNA topoisomerase II inhibitors.
—The taxoids.
—Sequence-selective groove binders.
—Bis-naphthalimides: Synthesis and preclinical evaluation.

Part II. *Newer strategies and targets.*
—The enediynes.
—Matrix metalloproteinase inhibitors.
—Interferons and other cytokines.
—Discovery of TNP-470 and other angiogenesis inhibitors.