

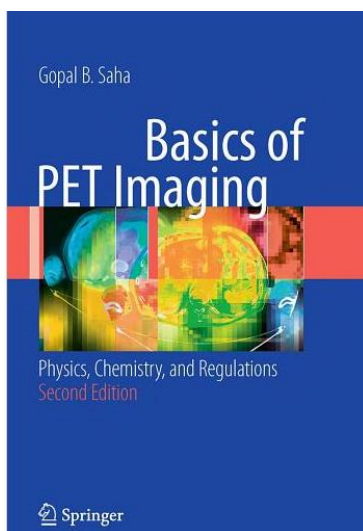


# AULA VIRTUAL de RADIOFARMACIA

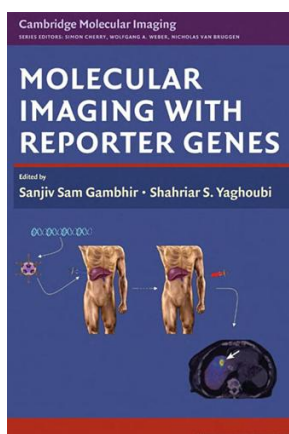
Plataforma Virtual de Formación Continua en Radiofarmacia

[www.aulavirtualradiofarmacia.es](http://www.aulavirtualradiofarmacia.es)

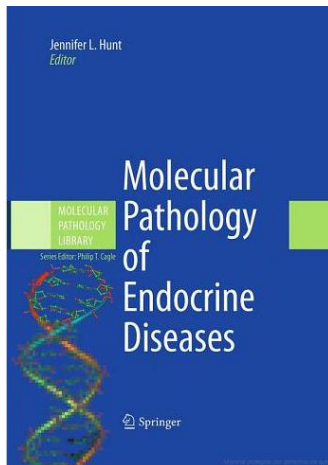
**Adjuntamos información y comentarios relacionados con libros que nos han parecido interesantes y que han sido publicados durante el primer semestre del año 2010**



This is an ideal text on PET and PET/CT imaging technology that focuses on the basics, such as physics, instrumentation, production of PET radionuclides and radiopharmaceuticals, and regulations affecting PET. The chapters are concise but comprehensive, making the topic easily understandable, and they are complete with reviews of pertinent basic science, sample questions, and lists of suggested reading. Practical tables and appendixes contain a wealth of valuable data, reflecting the book's usefulness as a reference for nuclear medicine professionals, including physicians, residents and technologists. The book also benefits technologists and residents preparing for board examinations because of its brevity and clarity of content.

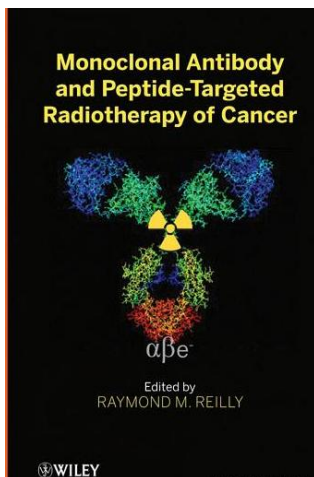


Reporter genes have been used for several decades to study regulation of gene expression in vivo. However, it was little more than a decade ago that a new class of reporter genes was developed for imaging molecular events within living subjects. By following the interactions of protein molecules, researchers can resolve the complex chemical pathways that living cells utilize. This book focuses on this group of imaging reporter genes, starting with detailed descriptions of all reporter genes from different imaging modalities, including optical, MRI, and radionuclide-based imaging. Key scientists in the field explain how to enhance reporter gene imaging utility through instrumentation and the various applications of this technology. This is the first comprehensive book on all aspects of reporter gene imaging, detailing what is known in the field and future goals for research. Investigators in biomedical sciences, physicians, and the biotechnology and pharmaceutical industries will benefit from topics covered here.

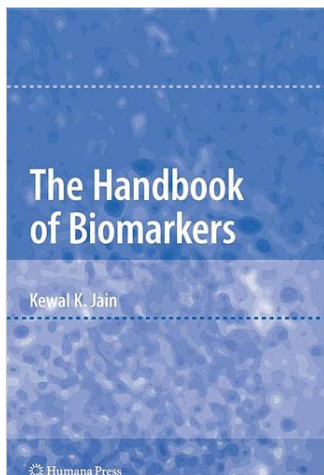


The past two decades have seen an ever-accelerating growth in knowledge about molecular pathology of human diseases which received a large boost with the sequencing of the human genome in 2003. Molecular diagnostics, molecular targeted therapy and genetic therapy are now routine in many medical centers. The molecular field now impacts every field in medicine, whether clinical research or routine patient care. There is a great need for basic researchers to understand the potential clinical implications of their research whereas private practice clinicians of all types (general internal medicine and internal medicine specialists, medical oncologists, radiation oncologists, surgeons, pediatricians, family practice), clinical investigators, pathologists and medical laboratory directors and radiologists require a basic understanding of the fundamentals of molecular pathogenesis, diagnosis and treatment for their patients. Traditional textbooks in molecular biology deal with basic science and are not readily

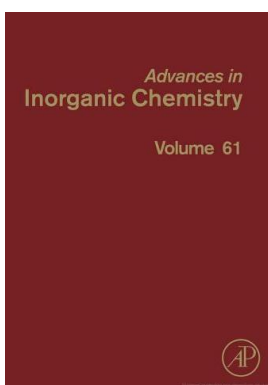
applicable to the medical setting. Most medical textbooks that include a mention of molecular pathology in the clinical setting are limited in scope and assume that the reader already has a working knowledge of the basic science of molecular biology. Other texts emphasize technology and testing procedures without integrating the clinical perspective. There is an urgent need for a text that fills the gap between basic science books and clinical practice. In the Molecular Pathology Library series the basic science and the technology is integrated with the medical perspective and clinical application. Each book in the series is divided according to neoplastic and non-neoplastic diseases for each of the organ systems traditionally associated with medical subspecialties. Each book in the series is organized to provide (1) a succinct background of the essential terminology, concepts and technology of molecular biology, (2) an overview of the broad application of molecular biology principles to disease and (3) specific application of molecular pathology to the pathogenesis, diagnosis and treatment of neoplastic and non-neoplastic diseases specific to each organ system. These broad section topics will be broken down into succinct chapters, averaging about 15 to 20 pages each, to cover a very specific disease entity. The chapters will be written by established authorities on the specific topic from academic centers around the world. In one book, diverse subjects are included that the reader would have to pursue from multiple sources in order to have a clear understanding of the molecular pathogenesis, diagnosis and treatment of specific diseases. Attempting to hunt for the full information from basic concept to specific applications for a disease from the varied sources is time-consuming and frustrating. By providing this quick and user-friendly reference, understanding and application of this rapidly growing field is made more accessible to both expert and generalist alike. As books that bridge the gap between basic science and clinical understanding and practice, the Molecular Pathology Series serves the basic scientist, the clinical researcher and the practicing physician or other health care provider who require more understanding of the application of basic research to patient care, from "bench to bedside." This series is unique and an invaluable resource. These books will be indispensable to physicians and health care providers in multiple disciplines as noted above, to residents and fellows in these multiple disciplines as well as their teaching institutions and to researchers who increasingly must justify the clinical implications of their research.



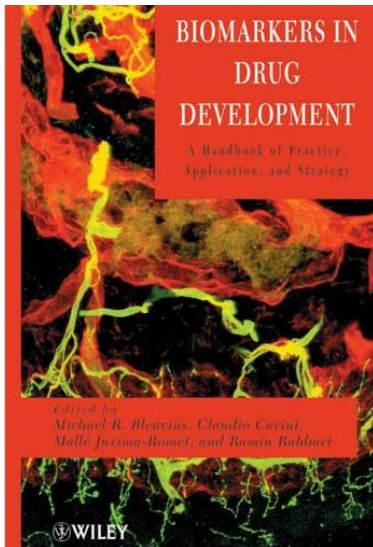
Targeted radiotherapy relies on and exploits characteristics of cancer cells to attack tumors. Monoclonal Antibody and Peptide-Targeted Radiotherapy of Cancer helps readers understand this hot pharmaceutical field with up-to-date developments. Expert discussion covers a range of diverse topics associated with this field, including the optimization of design of biomolecules and radiochemistry, cell and animal models for preclinical evaluation, discoveries from key clinical trials, radiation biology and dosimetry, and considerations in regulatory approval. With chapters authored by internationally renowned experts, this book delivers a wealth of information to push future discovery.



Of the thousands of biomarkers that are currently being discovered, relatively few are being validated for further applications, and the potential of a biomarker can be quite difficult to evaluate. To aid in this imperative research, Dr. Kewal K. Jain's Handbook of Biomarkers thoroughly describes many different types of biomarkers and their discovery using various "-omics" technologies, such as proteomics and metabolomics, along with the background information needed for the evaluation of biomarkers as well as the essential procedures for their validation and use in clinical trials. With biomarkers described first according to technologies and then according to various diseases, this detailed book features the key correlations between diseases and classifications of biomarkers, which provides the reader with a guide to sort out current and future biomarkers. Comprehensive and cutting-edge, The Handbook of Biomarkers serves as a vital guide to furthering our understanding of biomarkers, which, by facilitating the combination of therapeutics with diagnostics, promise to play an important role in the development of personalized medicine, one of the most important emerging trends in healthcare today.



The Advances in Inorganic Chemistry series present timely and informative summaries of the current progress in a variety of subject areas within inorganic chemistry, ranging from bio-inorganic to solid state studies. This acclaimed serial features reviews written by experts in the field and serves as an indispensable reference to advanced researchers. Each volume contains an index, and each chapter is fully referenced.\* Features comprehensive reviews on the latest developments \* Includes contributions from leading experts in the field\* Serves as an indispensable reference to advanced researchers



As pharmaceutical companies struggle to improve the success rate and cost-effectiveness of the drug development process, biomarkers have emerged as a valuable tool. This book synthesizes and reviews the latest efforts to identify, develop, and integrate biomarkers as a key strategy in translational medicine and the drug development process. Filled with case studies, the book demonstrates how biomarkers can improve drug development timelines, lower costs, facilitate better compound selection, reduce late-stage attrition, and open the door to personalized medicine.

Biomarkers in Drug Development is divided into eight parts:

Part One offers an overview of biomarkers and their role in drug development.

Part Two highlights important technologies to help researchers identify new biomarkers.

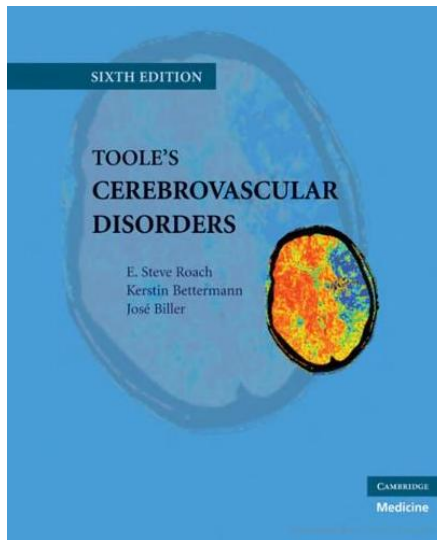
Part Three examines the characterization and validation process for both drugs and diagnostics, and provides practical advice on appropriate statistical methods to ensure that biomarkers fulfill their intended purpose.

Parts Four through Six examine the application of biomarkers in discovery, preclinical safety assessment, clinical trials, and translational medicine.

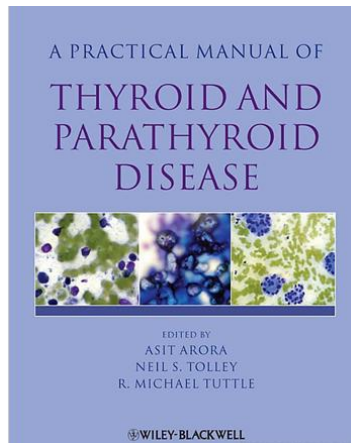
Part Seven focuses on lessons learned and the practical aspects of implementing biomarkers in drug development programs.

Part Eight explores future trends and issues, including data integration, personalized medicine, and ethical concerns.

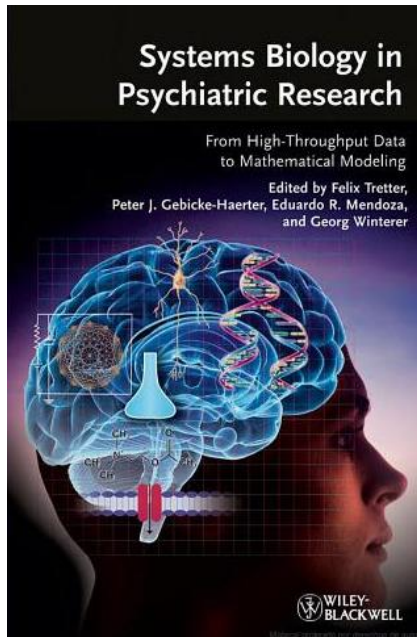
Each of the thirty-eight chapters was contributed by one or more leading experts, including scientists from biotechnology and pharmaceutical firms, academia, and the U.S. Food and Drug Administration. Their contributions offer pharmaceutical and clinical researchers the most up-to-date understanding of the strategies used for and applications of biomarkers in drug development



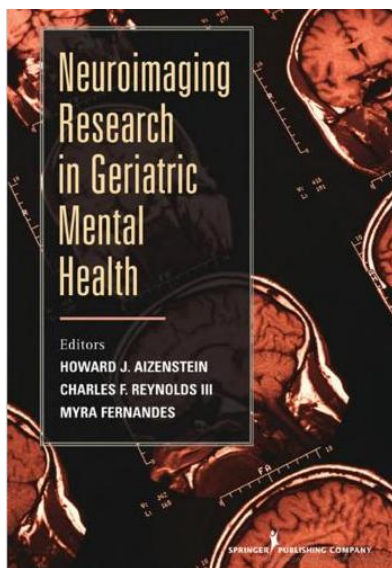
Toole's Cerebrovascular Disorders, was the first modern book devoted to the care of the stroke, originally published more than 40 years ago. Drs. E. Steve Roach, Kerstin Bettermann, and José Biller have completely revised and updated sixth edition of the highly respected standard for stroke diagnosis and treatment, adding chapters on genetics, pregnancy-related stroke, and acute treatment. The practical focus of the book has not changed, retaining its emphasis on bedside diagnosis and treatment. Easily accessible for both stroke specialists and residents, the sixth edition has been modernized to keep pace with the rapid expansion of knowledge in stroke care and includes evidence-based recommendations, the latest technology and imaging, and risk factors. The text is supplemented with more than 200 images, many in color. E. Steve Roach, MD, FAAN, FAHA, is Professor of Pediatrics and Neurology and Director of the Division of Child Neurology at The Ohio State University College of Medicine, Columbus, Ohio. Kerstin Bettermann, MD, PhD, is Assistant Professor of Neurology at Penn State College of Medicine, Hershey, Pennsylvania. José Biller, MD, FACP, FAAN, FAHA, is Professor of Neurology and Neurosurgery and Chairman of the Department of Neurology at Loyola University Chicago Stritch School of Medicine, Maywood, Illinois.



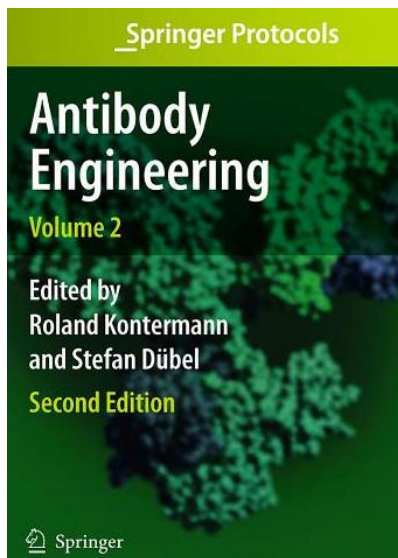
Edited and authored by international experts, "A Practical Manual of Thyroid and Parathyroid Disease" presents concise, evidence-based, multi-disciplinary guidance relevant for a global audience. Where appropriate, chapters include an evidence appraisal section which critically assesses the level of the evidence available for different treatment options. Reflecting the latest in clinical research and showcasing techniques pioneered by the contributors, the book includes chapters dedicated to advances in: cytology radiological assessment molecular biology and treatment rationale in thyroid cancer surgical technique including minimally invasive modalities. Designed to be user-friendly, the book contains key points, case studies, color photographs and diagrams throughout. Multiple choice questions included at the end of each chapter enable self assessment. The book will be relevant to the medical undergraduate, postgraduate and clinical nurse specialist. Primary care physicians will find this an excellent resource for reference purposes and it will update specialists involved with treating thyroid and parathyroid disease in the fields of Pathology, Radiology, Oncology, Endocrinology and Surgery.



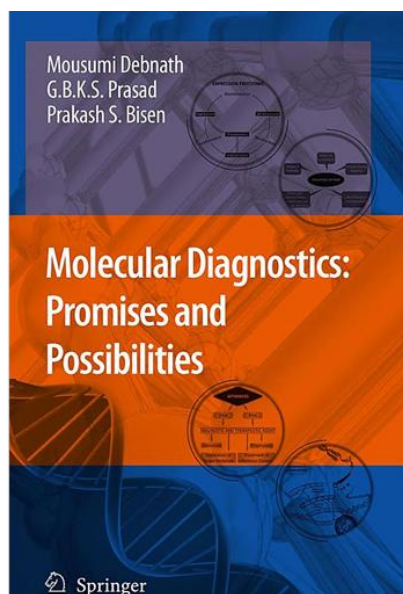
This first book to provide a comprehensive overview of the recent progress made in this break-through approach includes expert contributions from a variety of disciplines. Particular focus is placed on high-throughput methods and the analysis of data thus obtained, as well as their use in silico experiments so as to gain an insight into the complex biological processes in neuronal systems. A must-have for everyone working in psychiatric research.



This volume examines the state-of-the-art in our understanding of the aging brain through the application of brain imaging techniques of neuroscience to the geriatric population. By exploring the neurobiological aspects of geriatric mental health, scientists can begin to understand why abnormal aging happens and what can be done to treat it. Researchers in the fields of geriatric psychiatry, cognitive neuropsychology, neurology, neuroradiology, and physics have combined their expertise to present this accessible, compact review of the field. The chapter authors discuss the use of image modalities and what they can tell us about the aging brain; and present cutting-edge information on image processing and data analysis in the context of geriatric populations. With this book, both novice and seasoned investigators can gain fresh, new insight into geriatric mental health. Key topics: The use of MRI (magnetic resonance imaging), MRS (magnetic resonance spectroscopy), and other modalities with geriatric populations The application of SPECT (single photon emission computed tomography) and PET (positron emission tomography) to geriatric mental health Structural brain changes associated with normal aging Functional neuroanatomy of aging and cognition Brain structural and functional correlates of Alzheimer's dementia and mild cognitive impairment Neuroimaging in late-life schizophrenia



Antibodies are indispensable tools for research, diagnosis, and therapy. Recombinant approaches allow the modification and improvement of nearly all antibody properties, such as affinity, valency, specificity, stability, serum half-life, effector functions, and immunogenicity. Antibody Engineering provides a comprehensive toolbox covering the well-established basics but also many exciting new techniques. The protocols reflect the latest "hands on" knowledge of key laboratories in this still fast-moving field. Newcomers will benefit from the proven step-by-step protocols, which include helpful practical advice; experienced antibody engineers will appreciate the new ideas and approaches. The book is an invaluable resource for all those engaged in antibody research and development.



Molecular diagnostics has become an important part of the clinical laboratory, with tests and methods to identify a disease and understand the predisposition for a disease by analyzing DNA or RNA. Molecular diagnostics offers a growth opportunity in utilizing molecular tools to precisely target therapeutics and the development of biochips, microfluidics technology and nanotechnology extends the limits of detection. Molecular Diagnostics can provide gene profile based personalized therapeutic approaches, and therapy based on this molecular diagnostic information delivers effective treatment with the least toxicity. In the future, the scope of molecular diagnostics in molecular medicine could be expanded well beyond current nucleic acid testing, and it will play an important role in medicine, public health, pharmaceuticals, forensics and drug discovery. 'Molecular diagnostics: promises and possibilities' covers: The identification of viable technology drivers through a comprehensive look at platform technologies for molecular diagnostics, including probe-

based nucleic acid assays, microarrays and sequencing. The most important molecular diagnostics tests: predictive, screening, prognostic, monitoring, pharmacogenomic and theranostic from their basic principles to their applications. The discovery of feasible market opportunities by identifying high-growth applications in different clinical diagnostic areas and by focusing on expanding markets, such as communicable diseases, cardiology and oncology. Global industry development through an in-depth analysis of the major world markets for molecular diagnostics, including growth forecasts. This much needed book is written for students, scientists and professionals working in the field of molecular diagnostics, as well as pathologists, medical microbiologists, pharmaceutical scientists, agricultural scientists and veterinary doctors. No other book currently available provides such a complete picture of the developments in the field of molecular diagnostics.



## Radiopharmaceuticals:

Introduction to Drug Evaluation and Dose Estimation

[Lawrence E. Williams, Lawrence E. Williams, Ph.d.](#)

Emphasizing the relative benefits of various radiopharmaceuticals, this comprehensive overview provides guidance on dose estimation and agent selection. Utilizing figures of merit for quantitative assessment, it covers standard medical internal radiation dose (MIRD) absorbed dose method for imaging agents, vivo methods for obtaining activity data, errors of activity estimation techniques, phantom-based and patient-based dose estimates and their associated uncertainties, and options available to clinical physicists. With numerous examples from clinical trials, it discusses two- and three dimensional estimation processes, including modern hybrid scanners such as SPECT /CT and PET/CT.

Colabora con Farmacéuticos Mundi (**FarmaMundi**) (<http://www.farmaceuticosmundi.org/>)



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