The Molecular Basis Of Cancer Foserv

Colorectal cancer is a common cause of morbidity and mortality in which prevention, screening and early detection are vital. Beginning with the patient perspective and following the patient pathway, this new second edition covers epidemiology and prevention, screening programmes, decision support networks, the role of primary care, and supportive care for patients with colorectal cancer. The ABC of Colorectal Cancer provides the core knowledge on clinical genetics, diagnosis, imaging, therapy and surgery options and the latest evidence based guidelines for treating and managing colorectal cancer patients within the multidisciplinary team. Highly illustrated and accessible, it covers the full spectrum of the disease to provide the basis to make a real difference to clinical management. This is an invaluable practical guide for the non-specialist on all aspects of colorectal cancer, and is ideal for general practitioners, junior doctors, nurses and allied health professionals.

This is the second edition of a widely used textbook that consolidates the basic concepts of the cancer gene theory and provides a framework for understanding the genetic basis of cancer. Particular attention is devoted to the origins of the mutations that cause cancer, and the application of evolutionary theory to explain how the cell clones that harbor cancer genes tend to expand. Focused on the altered genes and pathways that cause the growth of the most common tumors, Principles of Cancer Genetics is aimed at advanced undergraduates who have completed introductory coursework in genetics, biology and biochemistry, medical students and medical house staff. For students with a general interest in cancer, this book provides a highly accessible and readable overview. For more advanced students contemplating future study in the field of oncology and cancer research, this concise book will be useful as a primer.

This textbook takes you on a journey to the basic concepts of cancer biology. It combines developmental, evolutionary and cell biology perspectives, to then wrap-up with an integrated clinical approach. The book starts with an introductory chapter, looking at cancer in a nut shell. The subsequent chapters are detailed and the idea of cancer as a mass of somatic cells undergoing a micro-evolutionary Darwinian process is explored. Further, the main Hanahan and Weinberg “Hallmarks of Cancer” are revisited. In most chapters, the fundamental experiments that led to key concepts, connecting basic biology and biomedicine are highlighted. In the book’s closing section all of these concepts are integrated in clinical studies, where molecular diagnosis as well as the various classical and modern therapeutic strategies are addressed. The book is written in an easy-to-read language, like a one-on-one conversation between the writer and the reader, without compromising the scientific accuracy. Therefore, this book is suited not only for advanced undergraduates and master students but also for patients or curious lay people looking for a further understanding of this shattering disease.

The state-of-the-art 2nd Edition of this acclaimed reference explains the principles that form the scientific basis for our understanding of malignant transformation and the pathogenesis and treatment of cancer. Readers will find a broad update on the scientific principles of new diagnostic tests and therapeutic interventions now being used in clinical trials and practice. Incorporating the latest advances and newest
research, this text also gives thorough descriptions of everything from the basic mechanisms of malignant cells and molecular abnormalities in common cancers to new approaches for cancer therapy. Each chapter discusses the clinical implications for treatment. Numerous examples of the latest clinical interventions help readers understand and assess the products of the biotechnology revolution. IMPORTANT new topics, including chemo-prevention, programmed cell death (apoptosis), genetic counselling, tumour-specific vaccines, genetic abnormalities in the origin and progression of cancer, monoclonal antibody therapy, and molecular predictors of prognosis and response to treatment NEW and revised chapters, covering new basic science knowledge, new approaches to treatment and keeping all information on the cutting-edge of the specialty ABUNDANT illustrations, most of them new, to clarify and explain difficult concepts.

Leading scientists summarize the latest findings on signal transduction and cell cycle regulation and describe the effort to design and synthesize inhibiting molecules, as well as to evaluate their biochemical and biological activities. They review the relevant cell surface receptors, their ligands, and their downstream pathways. Also examined are the latest findings on the components of novel signaling networks controlling the activity of nuclear transcription factors and cell cycle regulatory molecules. Cutting-edge and highly suggestive, Signaling Networks and Cell Cycle Control: The Molecular Basis of Cancer and Other Diseases presents a wealth of information on the emerging principles of the field, as well as an invaluable guide for all experimental and clinical investigators of cell regulation and its rapidly emerging pharmacological opportunities today.

This streamlined "essential" version of the Molecular Pathology (2009) textbook extracts key information, illustrations and photographs from the main textbook in the same number and organization of chapters. It is aimed at teaching students in courses where the full textbook is not needed, but the concepts included are desirable (such as graduate students in allied health programs or undergraduates). It is also aimed at students who are enrolled in courses that primarily use a traditional pathology textbook, but need the complementary concepts of molecular pathology (such as medical students). Further, the textbook will be valuable for pathology residents and other postdoctoral fellows who desire to advance their understanding of molecular mechanisms of disease beyond what they learned in medical/graduate school. Offers an essential introduction to molecular genetics and the "molecular" aspects of human disease Teaches from the perspective of "integrative systems biology," which encompasses the intersection of all molecular aspects of biology, as applied to understanding human disease In-depth presentation of the principles and practice of molecular pathology: molecular pathogenesis, molecular mechanisms of disease, and how the molecular pathogenesis of disease parallels the evolution of the disease using histopathology. "Traditional" pathology section provides state-of-the-art information on the major forms of disease, their pathologies, and the molecular mechanisms that drive these diseases. Explains the practice of "molecular medicine" and the translational aspects of molecular pathology: molecular diagnostics, molecular assessment, and personalized medicine Each chapter ends with Key Summary Points and Suggested Readings

This comprehensive text provides a detailed overview of the molecular mechanisms underpinning the development of cancer and its treatment. Written by an international
panel of researchers, specialists and practitioners in the field, the text discusses all aspects of cancer biology from the causes, development and diagnosis through to the treatment of cancer. Written by an international panel of researchers, specialists and practitioners in the field Covers both traditional areas of study and areas of controversy and emerging importance, highlighting future directions for research Features up-to-date coverage of recent studies and discoveries, as well as a solid grounding in the key concepts in the field Each chapter includes key points, chapter summaries, text boxes, and topical references for added comprehension and review Supported by a dedicated website at www.blackwellpublishing.com/pelengaris An excellent text for upper-level courses in the biology of cancer, for medical students and qualified practitioners preparing for higher exams, and for researchers and teachers in the field Completely updated to help nurses learn to ñthink geneticallyî Todayís nurses must be able to ñthink geneticallyî to help individuals and families who are affected by genetic disease or contemplating genetic testing. This book is a classic resource for nursing students and practitioners at all levels who need to acquire the knowledge and skills for using genomics in their practice. This completely updated second edition encompasses the many recent advances in genetic research and knowledge, providing essential new information on the science, technology, and clinical application of genomics. It focuses on the provision of individualized patient care based on personal genetics and dispositions. The second edition is designed for use by advanced practice nursing programs, as well as undergraduate programs. It pinpoints new developments in prenatal, maternity, and pediatric issues and supplies new information on genomics-based personal drug therapy, environmental susceptibilities, genetic therapies, epigenetics, and ethics The text features a practical, clinically oriented framework in line with the core competencies defined by the AACN. It delivers information according to a lifespan approach used in the practice setting. The second edition continues to provide basic information on genomics, its impact on healthcare, and genetic disorders. It covers prevention, genetic counseling and referral, neuropsychiatric nursing, and public health. The core of the text presents information on a variety of diseases that affect patients throughout the lifespan, with specific guidance on the nursing role. Also included are tests for a variety of diseases and information on pharmacogenomics, which enable health care providers to select the best drugs for treatment based on a patientís genetic makeup. Plentiful case study examples support the information throughout. Additionally, an instructorís package of PowerPoint slides and a test bank are provided for use at both the graduate and undergraduate levels. New to the Second Edition: Completely updated with several new chapters Personal drug therapy based on genomics Environmental susceptibilities Prenatal detection and diagnosis Newborn and genetic screening Reproductive technologies Ethical issues Genetic therapies Epigenetics Content for graduate-level programs PowerPoint slides and a test bank for all student levels Key Features: Encompasses state-of-the-art genomics from a nursing perspective Provides a practical, clinically oriented lifespan approach Covers science, technology, and clinical application of genomics Addresses prevention, genetic testing, and treatment methods Written for undergraduate- and graduate-level nursing students This book aims to describe the current state of knowledge and possible future developments in a number of major areas of research into the nature, causes and treatment of cancer. The contributing authors have been encouraged to discuss their
subjects at the molecular level. It will become apparent to the reader that considerable developments in the understanding of the fundamental nature of cancer, in molecular terms, are constantly being made. This is particularly the case in the area of oncogene research where differences between tumour and normal cells can now be defined in terms of altered expression of DNA sequences. An understanding of the methods available for detecting cancer, of the process of carcinogenesis and of the means available for treating cancer can only be achieved with a precise knowledge of the basic biochemical and molecular processes involved. Since it is all too easy for the research scientist to become totally absorbed within the specialised area of research in which he is involved, the first chapter is an attempt to encourage a broader field of vision by introducing the clinician’s view of the cancer problem, which illustrates the broad spectrum of basic problems that need to be solved by the cancer researcher.

Anthony Killeen, MD, PhD, offers a comprehensive yet concise introduction to molecular pathology that encompasses both applied and theoretical knowledge. Writing in a very readable style, the author reviews the basic concepts of human molecular biology, explains the principles of the most commonly used analytical methods, and discusses the molecular principles that underlie both inherited diseases and acquired genetic abnormalities that lead to cancer. Using common viral infections as examples, the book applies these molecular methods to the detection of microbial pathogens. The growing importance of pharmacogenetics and identity testing in the clinical laboratory is also highlighted.

Molecular and Cellular Basis of Metastasis: Road to Therapy, the latest in the Advances in Cancer Research series, provides invaluable information on the exciting and fast-moving field of cancer research. Here, once again, outstanding and original reviews are presented on a variety of topics, with this volume covering the molecular and cellular basis of metastasis. Presents groundbreaking information on the molecular and cellular basis of metastasis Provides information on cancer research Outstanding and original reviews Suitable for both researchers and students

Aimed at biochemists, oncologists, cell and molecular biologists, geneticists, pathologists and immunologists, this work covers the newer molecular biology research as well as earlier research essential to a comprehensive understanding of the biochemistry of neoplastic diseases.

This comprehensive, new reference will provide clinicians and other professionals who manage cancer patients, the scientific tools necessary to fully understand the disease and its therapy. The sequence of chapters leads the reader from the basic mechanisms of malignant transformation of cells, to the molecular and biological features of tumour growth and metastasis in the body, then to the molecular abnormalities found in common types of cancer, and finally to the molecular basis for new approaches to cancer therapy. The text reveals the very latest scientific research in cancer treatment and supplies the foundation for new approaches to evaluation and therapy of cancer patients.

An integrated presentation of the basic science and clinical applications of anticancer agents Aimed at both undergraduate and postgraduate readers, this unique text provides readers with a fully-integrated presentation of all aspects of the science of anticancer drugs, including their chemistry, pharmacology, and clinical applications.

After heart disease, cancer is the number one killer worldwide, and the tumor
microenvironment is forever changing, creating an ever-greater demand for safer, more effective anticancer agents. In response to that demand, the $100 billion cancer drug market continues to grow, with our increased understanding of cancer leading to new drugs being used clinically almost every year. Anticancer Therapeutics is divided into three sections. Section 1 is an introduction to cancer and therapeutics, and covers the etiology and cellular and molecular basis of cancer. In Section 2, the authors focus on the anticancer agents — their discovery, synthesis, mode of action, mechanisms of resistance, and adverse reactions. Section 3 focuses on specific cancers, explaining how and why the various agents discussed in Section 2 are used, both individually and in combination, to treat different cancers. Integrates aspects of basic science, including chemistry and pharmacology and clinical medicine in relation to cancer therapeutics. Written by an author team comprising specialists in medicinal chemistry, pharmacology, and oncology. Features full-color images throughout illustrating how drugs bind to cellular targets and exert their pharmacological effect. Divided into three sections, covering the etiology and cellular and molecular basis of cancer, anticancer agents, and drug applications for different cancers. Providing the reader with an integrated understanding of all aspects of the science of anticancer agents, this is an ideal textbook for undergraduates studying medicine, nursing, medicinal chemistry, pharmacy, pharmacology and other allied health / life sciences. It is also a valuable bench reference for pharmacists, medics, and pharmaceutical researchers working in both academia and industry.

Cancer is a multifaceted and genomically complex disease, and data obtained through high throughput technologies has provided near complete resolution of the landscape of how genomic, genetic and epigenetic mutations in cancerous cells effectively influence homeostasis of signaling networks within these cells, between cancerous cells, tumor microenvironment and at the organ level. Increasingly sophisticated information has helped us in developing a better understanding of the underlying mechanisms of cancer, and it is now known that intra-tumor genetic heterogeneity, cellular plasticity, dysregulation of spatio-temporally controlled signaling cascades, and loss of apoptosis are contributory in cancer development, progression and the development of resistance against different therapeutics. It is becoming progressively more understandable that earlier detection of pre-existing or emerging resistance against different therapeutics may prove to be helpful in personalizing the use of targeted cancer therapy. Despite the fact that there is a continuously increasing list of books, being guest edited by researchers, books on the subject are often composed of invited reviews without proper sequence and continuity and designed for a particular readership. This book progressively shifts and guides the readers from basic underlying mechanisms to translational approaches to treat cancer.

This is a revised and updated edition of a text used in undergraduate courses on cancer biology. It covers everything from the molecular basis of cancer to clinical aspects of the subject, and has a lengthy bibliography designed to assist newcomers with the cancer literature. An introduction acquaints students with the biological principles of cancer and the human dimensions of the disease by considering genuine cases of cancer in fictionalized letters. Other chapters discuss cancer pathology, metastasis, carcinogenesis, genetics, oncogenes and tumor suppressors, epidemiology, and the biological basis of cancer treatment. Also included are an appendix with descriptions of common forms of cancer, a glossary of cancer-related terms and colour plates to illustrate the pathology of many of the types of cancer discussed in the text. Upper-division undergraduates with a background in freshman biology and chemistry, as well as beginning graduate students will find this a valuable text.
This richly-illustrated atlas-like book provides a foundation for the biological and molecular understanding of how the mammary gland develops and how breast cancer originates. The main goal is to comprehensively review in ten chapters fundamental knowledge in breast cancer. New paradigms are described in which induction of differentiation in the mammary gland can promote prevention and cure of breast cancer. The text is extremely helpful both for clinicians treating patients and researchers looking for new avenues of development. The role of molecular genetics in the treatment of malignancy continues to grow at an astonishing rate. Today’s subspecialized multidisciplinary approach to oncology has incorporated advances in targeted molecular therapy, prognosis, risk assessment, and prevention—all based at least in part on molecular diagnostics and imaging. Inside this cutting-edge resource, readers will explore broad, comprehensive perspectives on the current trends in molecular diagnosis of cancer and personalized cancer medicine. Authoritative discussions share insights from noted experts in cancer research, clinical trials, molecular diagnostics, personalized therapy, bioinformatics, and federal regulations. From the basic mechanisms of carcinogenesis to the most advanced molecular screening, staging, and treatment technologies, readers will discover clear and straightforward discussions directly relevant to patient diagnosis and care.

The Molecular Basis of Cancer
Saunders

The Molecular Basis of Cancer arms you with the latest knowledge and cutting-edge advances in the battle against cancer. This thoroughly revised, comprehensive oncology reference explores the scientific basis for our current understanding of malignant transformation and the pathogenesis and treatment of this disease. A team of leading experts thoroughly explains the molecular biologic principles that underlie the diagnostic tests and therapeutic interventions now being used in clinical trials and practice. Detailed descriptions of topics from molecular abnormalities in common cancers to new approaches for cancer therapy equip you to understand and apply the complexities of ongoing research in everyday clinical application. Effectively determine the course of malignancy and design appropriate treatment protocols by understanding the scientific underpinnings of cancer. Visually grasp and retain difficult concepts easily thanks to a user-friendly format with abundant full-color figures. Find critical information quickly with chapters following a logical sequence that moves from pathogenesis to therapy. Stay current with the latest discoveries in molecular and genomic research. Sweeping revisions throughout include eight brand-new chapters on: Tumor Suppressor Genes; Inflammation and Cancer; Cancer Systems Biology: The Future; Biomarkers Assessing Risk of Cancer; Understanding and Using Information About Cancer Genomes; The Technology of Analyzing Nucleic Acids in Cancer; Molecular Abnormalities in Kidney Cancer; and Molecular Pathology. Access the entire text and illustrations online, fully searchable, at Expert Consult. Successfully fighting cancer starts with understanding how it begins. This thoroughly revised 3rd Edition explores the scientific basis for our current understanding of malignant transformation and the pathogenesis and treatment of cancer. A team of leading experts thoroughly explain the molecular biologic principles that underlie the diagnostic tests and therapeutic interventions now being used in clinical trials and practice. Incorporating cutting-edge advances and the newest research, the book provides thorough descriptions of everything from molecular abnormalities in common cancers to new approaches for cancer therapy. Features sweeping updates throughout, including molecular targets for the development of anti-cancer drugs, gene therapy, and vaccines...keeping you on the cutting edge of your specialty. Offers a new, more user-friendly full-color format so the information that you need is easier to find. Presents abundant figures—all redrawn in full color—illustrating major concepts for easier comprehension. Features numerous descriptions of the latest clinical strategies—helping you to understand and take advantage of today’s state-of-the-art biotechnology advances.
The third edition of The Molecular Biology of Cancer: Mechanisms, Targets, and Therapeutics offers a fresh approach to the study of the molecular basis of cancer, by showing how our understanding of the defective mechanisms which drive cancer is leading to the development of new targeted therapeutic agents. Internationally renowned basic and clinical scientists provide an account of our best current understanding of the genetics of cancer. These authoritative contributors describe in detail each of the known molecular mechanisms governing neoplastic transformation in the breast, prostate, lung, liver, colon, and skin, and in the leukemias and lymphomas. Their discussion illuminates both recent developments and established concepts in epidemiology, molecular techniques, oncogenesis, and mutation mechanisms, as well as the chemical, viral, and physical mechanisms in cancer induction.

Cancer research is now an interdisciplinary effort requiring a basic knowledge of commonly used terms, facts, issues, and concepts. This interdisciplinary book meets this need, providing an authoritative overview to the field. It presents many of the molecules and mechanisms generally important in human cancers and examines a broad, but exemplary, selection of cancers. In addition, cancer research has now reached a critical stage, in which the accumulated knowledge on molecular mechanisms is gradually translated into improved prevention, diagnosis, and treatment. This book summarizes the state, pitfalls, and potential of these efforts.

The book describes how the balance between pro- and anti-inflammatory molecules is related to health and disease. It is suggested that many diseases are initiated and their progress is influenced by inflammatory molecules and a decrease in the production and/or action of anti-inflammatory molecules and this imbalance between pro- and anti-inflammatory molecules seems to have been initiated in the perinatal period. This implies that strategies to prevent and manage various adult diseases should start in the perinatal period. An alteration in the metabolism of essential fatty acids and their anti-inflammatory molecules such as lipoxins, resolvins, protectins, maresins and nitrolipids seems to play a major role in the pathobiology of several adult diseases. Based on these concepts, novel therapeutic approaches in the management of insulin resistance, obesity, type 2 diabetes mellitus, metabolic syndrome, cancer, lupus, rheumatoid arthritis and other auto-immune diseases are presented. Based on all these evidences, a unified concept that several adult diseases are due to an alteration in the balance between pro- and anti-inflammatory molecules is discussed and novel methods of their management are presented.

As the molecular basis of human disease becomes better characterized, and the implications for understanding the molecular basis of disease becomes realized through improved diagnostics and treatment, Molecular Pathology, Second Edition stands out as the most comprehensive textbook where molecular mechanisms represent the focus. It is uniquely concerned with the molecular basis of major human diseases and disease processes, presented in the context of traditional pathology, with implications for translational molecular medicine. The Second Edition of Molecular Pathology has been thoroughly updated to reflect seven years of exponential changes in the fields of genetics, molecular, and cell biology which molecular pathology translates in the practice of molecular medicine. The textbook is intended to serve as a multi-use textbook that would be appropriate as a classroom teaching tool for biomedical graduate students, medical students, allied health students, and others (such as advanced undergraduates). Further, this textbook will be valuable for pathology residents and other postdoctoral fellows that desire to advance their understanding of molecular mechanisms of disease beyond what they learned in medical/graduate school. In addition, this textbook is useful as a reference book for practicing basic scientists and physician scientists that perform

---

Read Free The Molecular Basis Of Cancer Foserv
disease-related basic science and translational research, who require a ready information resource on the molecular basis of various human diseases and disease states. Explores the principles and practice of molecular pathology: molecular pathogenesis, molecular mechanisms of disease, and how the molecular pathogenesis of disease parallels the evolution of the disease. Explains the practice of “molecular medicine and the translational aspects of molecular pathology. Teaches from the perspective of “integrative systems biology.” Enhanced digital version included with purchase.

Since the first edition of Clinical Pancreatology for Practising Gastroenterologists and Surgeons was first published sixteen years ago, the knowledge and clinical management of pancreatic diseases have developed markedly. Thanks to the development of translational research and the “from bench to bedside” concept, much progress from the lab has been applied to clinical practice. Additionally, several highly relevant clinical trials published over the last decade have resulted in the updating and optimisation of clinical guidelines. A new and validated classification of the severity and complications of acute pancreatitis that is firmly rooted in clinical practice has become the basis for the development of minimally invasive approaches to pancreatic necrosis. The etiopathogenic knowledge of chronic pancreatitis and other pancreatopathies, like that associated with diabetes mellitus, has developed significantly. Increased study of cystic pancreatic tumours, which has been reflected in the publication of several guidelines and consensus reports over the last few years, is especially important. Most research efforts have focused on pancreatic cancer, which have led and will further lead to a significant increase in the therapeutic armamentarium against this devastating disease. Finally, many newly published studies have changed the concept, causes, clinical relevance, diagnosis and treatment of exocrine pancreatic insufficiency. Updates based on these developments and more are included in the new edition of Clinical Pancreatology for Practising Gastroenterologists and Surgeons. This new edition of Clinical Pancreatology for Practising Gastroenterologists and Surgeons is a result of the collaboration between the world’s leading experts in each area of clinical pancreatology, with the aim of facilitating gastroenterologists, surgeons, oncologists, internists, nutritionists, diabetologists, paediatricians, radiologists, pathologists and other specialists in their daily clinical practice. This book is an indispensable update providing leading knowledge in clinical pancreatology.

At the midpoint of the 20th century, our knowledge of cancer was based on epidemiology and pathology, and treatment consisted of surgery and radiation therapy. At mid-century, Medawar and colleagues initiated the understanding of transplantation immunology, Farber described the first use of an antifolic drug to treat leukemia, and Jacobson and coworkers described the irradiation-protection effect of spleen cells. These observations opened the door to the development of chemotherapy and transplantation in the treatment of cancer. Despite the rapid development of these new disciplines, progress was usually based on empiric observations and clinical trials. The rapid advances in molecular biology at the end of the 20th century mark a new era in our knowledge of cancer. Molecular immunology, molecular genetics, molecular pharmacology, and the Human Genome Project are in the process of providing a level of understanding of cancer undreamed of in the past. Optimism is based on the firm belief that understanding at the molecular level will lead to better and earlier diagnosis, to new forms of treatment, and, most importantly, eventually to prevention of many types of cancer.

Stay current with the latest discoveries in molecular and genomic research. Sweeping revisions throughout include eight brand-new chapters on: Tumor Suppressor Genes; Inflammation and Cancer; Cancer Systems Biology: The Future; Biomarkers Assessing Risk of Cancer; Understanding and Using Information About Cancer Genomes; The Technology of Analyzing Nucleic Acids in Cancer; Molecular Abnormalities in Kidney Cancer; and Molecular Pathology.

The study of the biology of tumours has grown to become markedly interdisciplinary, involving...
chemists, statisticians, epidemiologists, mathematicians, bioinformaticians, and computer scientists alongside biologists, geneticists, and clinicians. The Oxford Textbook of Cancer Biology brings together the most up-to-date developments from different branches of research into one coherent volume, providing a comprehensive and current account of this rapidly evolving field. Structured in eight sections, the book starts with a review of the development and biology of multi-cellular organisms, how they maintain a healthy homeostasis in an individual, and a description of the molecular basis of cancer development. The book then illustrates, as once cells become neoplastic, their signalling network is altered and pathological behaviour follows. It explores the changes that cancer cells can induce in nearby normal tissue, the new relationship established between them and the stroma, and the interaction between the immune system and tumour growth. The authors illustrate the contribution provided by high throughput techniques to map cancer at different levels, from genomic sequencing to cellular metabolic functions, and how information technology, with its vast amounts of data, is integrated with traditional cell biology to provide a global view of the disease. The effect of the different types of treatments on the biology of the neoplastic cells are explored to understand on the one side, why some treatments succeed, and on the other, how they can affect the biology of resistant and recurrent disease. The book concludes by summarizing what we know to date about cancer, and in what direction our understanding of cancer is moving. Edited by leading authorities in the field with an international team of contributors, this book is an essential resource for scholars and professionals working in the wide variety of sub-disciplines that make up today’s cancer research and treatment community. It is written not only for consultation, but also for easy cover-to-cover reading.

During May 21-June 1 1990, the eleventh course of the International School of Pure and Applied Biostucture, a NATO Advanced Study Institute, was held at the Ettore Majorana Center for Scientific Culture in Erice, Italy, co-sponsored by the Italian Ministry of Universities and of Scientific and Technological Research, the North Atlantic Treaty Organization, the Italian National Research Council, the Sicilian Regional Government and Technobiochip. The subject of the course was "Molecular Basis of Human Cancer" with participants selected worldwide from 15 different countries. The purpose of the course was to address, in a tutorial and structural fashion, the molecular basis of human cancer, including the mechanism of signal transduction in mammalian cells, the genetic mechanism of malignant transformation in man, growth factors, hormone receptors, cell membrane and cytoskeleton, and DNA high order structure. The course had this as its major objective and the resulting book reflects it. The participants were exposed to a critical evaluation of current knowledge about cancer and to some of the key problems that remain as stumbling blocks to our eventual understanding of this important biological and medical problem. Through the media of formal and informal lectures, workshops, symposia and informal discussions, a select group of interested young and senior scientists were acquainted with many of the aspects of human cancer.

Copyright: d121fff00591a7ade47673d9a2062415