

chapters. Throughout the book, hemoglobin disorders are employed as a model of molecular pathology.

Profusely illustrated, the volume will be invaluable for those seeking to become familiar with the basic concepts of molecular biology and its application to medicine, especially if, like me, you have had difficulty in following the scientific literature and words such as probes, gene cloning, gene libraries, introns, and restriction length polymorphism are foreign. This book provides a simple and inexpensive introduction to that complicated field. I recommend it without reservation.

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INTRODUCTION TO THE CELLULAR AND MOLECULAR BIOLOGY OF CANCER. Edited by L.M. Franks and N. Teich. New York, Oxford University Press, 1986. 458 pp. \$29.95. Paperbound.

The growth of basic science research in oncology over the past two decades has been notable. Geneticists, pharmacologists, epidemiologists, virologists, radiation biologists, and representatives of other disciplines are all actively involved in oncologic research. Although the scope and volume of research in oncology has grown, the discipline has not developed a sense of unity based on a common core of knowledge. Researchers have not been trained primarily as oncologists but have specialized in the study of questions of oncologic interest after having received their training in other fields.

Recognizing that many young investigators lacked a broad perspective on areas of oncology outside their specialties, staff members of the Imperial Cancer Research Fund (ICRF) in London organized a series of introductory lectures designed to fill the void. This book stems from those lectures. Accordingly, the authors of the individual chapters are primarily staff members of the ICRF and its affiliated institutions.

Topics covered range from the most basic "What is cancer?" to more timely questions including the role of oncogenes, viruses, and monoclonal antibodies in the study of oncology. General topics such as metastasis, carcinogenesis, cancer therapy, and the epidemiology and genetics of cancer are also addressed.

The book is composed of nineteen chapters, each twenty to twenty-five pages long, which are not exhaustive reviews of the literature, but rather essays outlining important data and lines of thought relating to the question under consideration. Overall, the chapters provide well-written, accessible, and often stimulating discussions. Franks and Teich have organized a valuable monograph which presents a "core curriculum" of material which will aid clinicians and researchers in oncology better to appreciate developments in areas removed from their fields of specialization.

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TO DO NO HARM: A JOURNEY THROUGH MEDICAL SCHOOL. By Philip Reilly. Dover, MA, Auburn House Publishing Company, 1987. 292 pp. \$24.95.

Dr. Reilly, a graduate of Yale's medical school, is currently the medical director of the Eunice Kennedy Shriver Center for Mental Retardation in Waltham, Massachu-

47 chapter 4 Commercialization of Molecular Biotechnology 6 Restriction Endonucleases 49 Chemical Synthesis, Concerns and Consequences 10 Plasmid Cloning Vectors 57 Amplification, and summary 12 Plasmid Cloning Vector pBR322 59 Sequencing of DNA 98 references 13 Transformation and Selection 60 Chemical Synthesis of DNA 98 Other Plasmid Cloning Vectors 63 The Phosphoramidite Method 99 review Questions 13 Creating and Screening a Library.Â Strains 220 Selectable Markers for Mammalian summary 142 Bacterial Hemoglobin 220Â The book concludes with coverage of the regulation of molecular biotechnology and patents in Part IV. A brief mention should be made about the reference sections that follow each chapter. The book opens with a review of the scientific underpinnings. Pathophysiology of common hemoglobin disorders is discussed next in an entirely new section devoted to vascular biology, the erythrocyte membrane, nitric oxide biology, and hemolysis. Four sections deal with  $\alpha^+$  and  $\alpha^2$  thalassemia, sickle cell disease, and related conditions, followed by special topics.Â Douglas R. Higgs is Professor of Molecular Haematology at the University of Oxford. David J. Weatherall is Regius Professor of Medicine Emeritus at the University of Oxford and Chancellor at Keele University. Leer mÃs. Contraer. Pathophysiology of common hemoglobin disorders is discussed next in an entirely new section devoted to vascular biology, the erythrocyte membrane, nitric oxide biology, and hemolysis.Â x Chapter 5: Molecular and Cellular Basis of Hemoglobin Switching George Stamatoyannopoulos, MD, Dr Sci Professor of Medicine and Genome Sciences Director, Markey Molecular Medicine Center University of Washington School of Medicine Seattle, WA Patrick A. Navas, PhD Research Assistant Professor Division of Medical Genetics Department of Medicine University of Washington School of Medicine Seattle, WA Qiliang Li, PhD Research Professor of Medicine.Â Chapter 12: Animal Models of Hemoglobinopathies and Thalassemia.