chromosomes, and the sections are divided into structural variations and anomalies, numerical variations and anomalies, double aneuploidies, chromosome breakage syndromes, and a small list of mapping data of loci assigned to chromosomes.

A short appendix outlines the clinical features of the major autosomal and sex chromosome abnormalities. This book is a veritable gold mine of information about all of the known chromosomal variations in the world. It will not serve the general physician who wishes to know clinical information about chromosome abnormalities. It has only a few photographs in the small appendix. But for workers in clinical genetics and cytogenticists the work will be invaluable as a reference tool both as a quick reference when evaluating a particular karyotype of an unusual nature and as an entree to the literature of this rapidly growing subject.

The volume will not be particularly helpful to house officers and students but belongs on the library shelf for reference.

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Tumor Cell Surfaces and Malignancy. Progress in Clinical and Biological Research. Vol. 41. Edited by Richard O. Hynes and C. Fred Fox. New York, Alan R. Liss, Inc., 1980. 961 pp. $13.00.

This book is a collection of 70 scientific papers which were originally presented to a symposium at Keystone, Colorado, in March 1979. Subsequently, most of the papers were published in the Journal of Supramolecular Structure. The book provides no editorial comments about individual papers and no unifying concepts which would lend perspective to the different contributions. It conveys none of the excitement or controversy which such symposia generate. Its organization is abstruse with an unorthodox pagination that reflects the order of publication in the Journal of Supramolecular Structure and a table of contents in which the sequence of papers bears no relation to the sequence of presentation in the book. Due to the relatively long delay in publication (about 18 months) some of the most exciting work is already dated. For example, several papers discuss the phosphorylation of proteins by gene products of transforming viruses. Data in the literature now for nearly 18 months, and not mentioned in this book, indicates that the most novel and intriguing aspect of this work is that tyrosine, rather than the usual serine or threonine, is the amino acid which is phosphorylated.

Why, then, will people use this book? Its chief virtue is that it brings together much of the best work in diverse areas of tumor and cell biology. It provides the committed reader with access to current work on growth control, viral transformation, components of the intercellular matrix, cell surface glycoproteins and enzymatic activities, cell motility, and nutrient transport and metabolism. It covers much that is not found in standard texts and thus is a handy reference source to rapidly advancing and exciting areas of investigation.

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Enzyme Therapy in Genetic Diseases 2. March of Dimes Birth Defects Foundation, Original Article Series, XVI. No. 1, 1980. Edited by Robert J. Desnick. New York, Alan R. Liss, Inc., 1980. 544 pp. $64.00.
This book is a compilation of an international symposium held in South Carolina in March 1979. It reviews the progress made during the past two decades concerning attempts at therapy of the genetic disorders which result in abnormal lysosomal enzyme metabolism. Despite the narrowness of the subject the variety of information is quite large. The first section is devoted to a discussion of enzyme availability, purification, and characterization. It deals mostly with the recent biochemical knowledge of the structure and function of lysosomal enzymes.

Section II discusses enzyme recognition and modification. This includes a discussion of the mechanism of uptake of lysosomal enzyme into lysosomes by Dr. Neufeld and a discussion of the signal hypothesis involving carbohydrate residues. Possibilities for modifying enzymes which are structurally abnormal or to alter their recognition by certain cells are discussed.

Section III, devoted to animal model studies and methods of enzyme delivery to body organs, is a very helpful compilation of known animal models for the inherited lysosomal storage diseases. In Section IV the problems, mechanisms, and therapeutic trials involving enzyme manipulation in lysosomal storage diseases are discussed. Cofactor enzyme interactions, particularly with regard to vitamin B6 and other specific vitamin therapies, are discussed. In Section V there is a one-hundred-page compilation of the data of human trials of direct enzyme replacement for lysosomal storage diseases. Gaucher disease and Fabry disease form the group in which the greatest information is known and most therapeutic trials have been attempted. In Section VI cell and organ transplantation as therapeutic approaches are discussed. In this section fibroblast transplantation as well as organ transplantation are reported. These therapies are investigational at the present time, but in this volume there is a summary of information to date.

This volume will be of value to geneticists and physicians caring for children and adults with these lysosomal storage diseases and is a very thorough, helpful, overall summary of the work in this field to date. As Dr. Desnick is one of the leaders in this particular aspect of genetic therapy, his overview at the beginning of the book is helpful for workers not thoroughly familiar with this field. This book belongs in the library, in human genetics departments, and in sections of genetics. It will not be helpful to general medical practitioners or to students or house officers.

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THE PATIENT. BIOLOGICAL, PSYCHOLOGICAL, AND SOCIAL DIMENSIONS OF MEDICAL PRACTICE. By Hoyle Leigh and Morton F. Reiser. New York, Plenum Publishing Corporation, 1980. 351 pp. $19.50.

Among excellent textbooks there is a rarer breed of special import—texts whose aims transcend presenting basic information to include teaching, orienting, and challenging students and other readers to develop clinical insight and approaches to the care of patients. (A prime example exists in Harvey's The Principles and Practice of Medicine.) Drs. Leigh and Reiser have embraced these broader aims and achieved a remarkably successful integration of behavioral science, conventional psychiatry, and biologic medicine within the context of patients and patient care. Although written for medical students in the preclinical years, its practical and concrete presentations of patient management in the biological, personal, and environmental dimensions should make it welcome to housestaff and other physicians responsive to popular demands for more "patient-centered" medical care.