on recombinant DNA methodology. This one is based on a practical course run by the University of Leicester and contains five detailed articles: Mammalian cDNA cloning; Analysis of nucleic acids (restriction maps, Southern and Northern blots); Systems for the analysis of gene expression; Cloning in phage lambda; and electron microscopy of nucleic acids. Thus, it covers some areas that are not dealt with in other widely used texts such as that of Maniatis *et al.* The strength of this book is the large amount of practical detail that is included, especially useful for beginners in this field. Its coverage is limited to the five topics listed above and would therefore need to be supplemented by other articles. However, no attempt is made to guide the reader to any of this material, and in general the references given are rather few in number and not particularly up to date. For example, in the chapter on lambda cloning there is no mention of the recently developed and extremely useful EMBL series of vectors.

I would suggest that potential buyers have a good look at the book before they commit themselves, and be aware that more up to date procedures are available in many cases.

DUNCAN SHAW

Gene Expression During Normal and Malignant Differentiation

Edited by L C Andersson, C G Gahmberg, and P Ekblom. (Pp 237; figures + tables. £26.50.) Florida: Academic Press. 1985.

As described in the preface, this book comprises the highlights of a symposium held in 1984. The symposium was intended to cover the genetic regulation of cellular functions from diverse positions. The combination of an all-encompassing title and a limited number of contributions has self-evident inherent problems which have not been entirely overcome. To satisfy the bias of current interest in molecular biology, eight of the 18 chapters deal with the effects of viral and cellular oncogenes. These are overall fairly informative articles, dealing with oncogene activation, expression in normal and neoplastic cells, phosphorylation, similarity of oncogene products and growth factors, HTLV, and so forth, but their number tends somewhat to compress illustrations of other viewpoints. Representations of these include influence of cell-cell interactions and the architectural features of the cell ('Cells as tensegrity structures') on differentiation, various aspects of induction and control of differentiation, and patterns of membrane

glycoproteins and glycolipids, associated with differentiation and proliferation.

It is highly unlikely that specialists will find anything in the relevant chapters with which they will be unfamiliar. Anything which fulfilled the criterion of 'very recent developments in biomedical research' at the time of the symposium has since been published in far more detail in the refereed journals. The book may be of interest to the specialist who is curious about advances and approaches in related areas but does not expect to expand his knowledge extensively. It would, perhaps, be of more value to the novice not yet committed, who needs a wide selection from which to make his choice.

There is no uniformity of presentation of the chapters, whether regarding structure, typescript (the volume has been produced by 'rapid manuscript reproduction' which does not account for the number of typographical errors in the list of contents), or length. Some, therefore, contain much information, whereas others may be described as brusque. This, however, may relate to the specialisation of the reader. Most tend towards the style of the mini-review or overview, while few assume the format of the scientific paper. These inconsistencies serve to emphasise the lack of cohesion in the book.

PETER DAVIES

Genetic Engineering—Principles and Methods

Volume 7. Edited by J K Setlow and A Hollaender. (Pp 359; figures + tables. \$52.50.) New York: Plenum Press. 1985.

The seventh volume of the series 'Genetic Engineering—Principles and Methods' contains 15 chapters on a wide variety of biological topics. These range from mainly methodological contributions, such as use of DNA expression libraries, computer analysis of DNA sequences, SP6 RNA polymerase reactions, and gene transfer using retroviral vectors, to reviews on some applications of DNA technology, including DNA replication and transcription, plant molecular genetics, bacterial pathogenicity, cytomegaloviruses, gene therapy, bacterial catabolic plasmids, and DNA markers for human genetic disorders. The more practically orientated chapters contain much useful experimental detail and all of the contributions are well written and presented, with sufficient references given to allow particular points to be pursued further. As a whole, the book is a worthwhile

collection of articles on some of the most recent developments and applications in molecular biology, and as such receives a firm recommendation.

DUNCAN SHAW

Congenital Metabolic Diseases

Clinical Pediatrics Volume 2. Edited by Paul A Wapnir. (Pp 429; figures + tables. \$75.00). New York: Marcel Dekker. 1985.

This book is the second of a series of publications on clinical paediatrics and is essentially a series of papers presented at a conference in 1983 to honour Garrod's description of inborn errors of metabolism.

The book is divided into eight parts and starts with some interesting historical data and discussion of Garrod's concepts. There is a limited section on new approaches to diagnosis with a chapter on the use of restriction enzymes. The third part is devoted to neonatal screening with quite a lot of duplication in the first two chapters. A review by Pang and New has a somewhat narrow approach and concentrates heavily on congenital adrenal hyperplasia. For readers outside the USA it is important to realise that this section presents a different picture of screening compared to current practice in the UK and parts of Europe. The desirability and ethical aspects of screening are not addressed, and the non-specialist reader could wrongly assume that screening for diseases such as glutathione deficiency, argininaemia, and adenosamine deficiency is justified. Computerisation of screening laboratories enabling 'megalaboratories' to screen 250 000 to 500 000 babies annually for 10 to 20 disorders certainly does not seem a reality for most countries, let alone desirable.

The section on amino acid metabolism contains an interesting selection of papers, including an excellent review of maple syrup urine disease. There is a lot of very useful dietary information which would be helpful to those directly involved in the practical management of patients with amino acid disorders.

There is a good review of the lactic and methylmalonic acidemias, and a fascinating chapter on glycerol metabolism and related disorders. Detailed discussion of enzyme measurements in the various types of glycogen storage disease are more suited to the biochemist than the paediatrician.

Part 6 deals with some aspects of the storage disorders and includes a useful update on the mucopolysaccharidoses and current status of enzyme replacement therapy. Inherited diseases of membrane transport contains an interesting and detailed chapter on leprechaunism and a useful

practical review on carbohydrate intolerance. The final section deals with aspects of purine and urea metabolism with an excellent chapter on the immunodeficiency diseases.

This book aims to be a comprehensive review of recent developments in the field of metabolic disorders for the practising paediatrician. Unfortunately, it does not fulfil this promise. Content is unbalanced, with specific texts of interest to the specialists and far too detailed for the average practising paediatrician. Although there are some very unusual and interesting chapters, not found in other available texts on this subject, there are other chapters with very little new information. For an update on this subject there are notable omissions, such as the use of chorionic villus biopsy for prenatal diagnosis and problems of maternal phenylketonuria. I felt that this inconsistency reflects that this is a publication following a conference rather than having a specific readership in mind. I was left wondering just who will buy this book.

ANNE GREEN

An Introduction to Inherited Metabolic Diseases

Edited by J B Holton. (Pp 99; figures + tables.) New York: Chapman and Hall. 1985.

This is an excellent little book. It is based on a series of undergraduate lectures about the basic principles of inherited metabolic disease. In the first chapter Garrod's concepts and some basic genetics are introduced. Then the mechanisms responsible for the defects and genetic heterogeneity are discussed. In the last two chapters the consequences and diagnosis of inborn errors are briefly covered. Examples are given throughout.

This monograph is clear, well written, and up to date since brief details of the advances as a result of studies of DNA are included. It provides a good introduction to the subject for undergraduates and others in training and I would recommend it. It also has the virtue of being short, less than 100 small pages, and, very importantly, it manages to convey some of the fascination and excitement of the subject.

J V LEONARD

Craniofacial Dysmorphology: Studies in Honor of Samuel Pruzansky

Edited by M Michael Cohen Jr and Beverly R Rollnick. (Pp x + 352; figures + tables. £58.00.) New York: Alan R Liss. 1985.

This book, which also appears as Supplement 1 to