cialty, but other methods covered in this book should be of great interest. For clinicians and laboratorians, familiarity with these techniques may be useful in understanding new developments in cystic fibrosis research.

The book is divided into four major parts: (1) Genetics of Cystic Fibrosis; (2) CFTR Structure and Function; (3) Pathophysiology of Cystic Fibrosis; and (4) Novel Therapeutic Approaches for Cystic Fibrosis. Because of the broad nature of this book, there is rarely enough space devoted to any one specific area to be considered comprehensive. For example, in the introductory section, "Genetics of Cystic Fibrosis", the first chapter deals with CFTR mutation detection. Although Zielenski et al. describe their MDE gel method in sufficient detail, the method is neither applicable to most clinical laboratories (which is not the intended audience), nor is it the method of choice for current gene scanning research efforts compared with denaturing HPLC (DHPLC), denaturing gradient gel electrophoresis (DGGE), or temperature gradient capillary electrophoresis (TGCE). However, for the reader interested in a general mutation detection technique, this chapter serves as an example and, therefore, an introduction to mutation detection. In a similar fashion, each chapter deals, more or less, with a specific method used to study some aspect of cystic fibrosis.

Part 2, "Structure and Function", is the most extensive and is superb in scope and detail. The section on "Expression, Folding, and Degradation" (chapters 13–22) is particularly informative and is sufficient reason to purchase this book. Part 3 deals with "Pathophysiology of Cystic Fibrosis" and "Animal Models of Cystic Fibrosis", whereas Part 4 describes "Novel Therapeutic Approaches for Cystic Fibrosis". In the latter, chapter 38 specifically details "Design of Gene Therapy Clinical Trials in CF Patients" and should be read by anyone who has contact with cystic fibrosis patients and their families. This is a clear introduction into the first-generation gene therapy protocols and explains the complexities of gene transfer studies. In addition, the authors address the fallacies associated with attempts to predict clinical trial outcomes based on preclinical testing.

For researchers, clinicians, and laboratorians who deal with cystic fibrosis patients, I feel that this book serves as an excellent companion to *Cystic Fibrosis in Adults*, by Yankaskas and Knowles (Lippincott-Raven, 1999). Together, these complementary texts provide an excellent foundation for understanding an exceedingly complex disorder.

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Challenges at the Clinical Interface, Case Histories for Clinical Biochemists. Danielle B. Freedman, James Hooper, Philip J. Wood, David J. Worthington, and Christopher Price, eds. Washington, DC: AACC Press, 2001, 252 pp., $58.00 ($46.00 AACC members), softcover. ISBN 1-890883-52-2.

This book consists of 48 interesting clinical cases that are presented in a common format and in an interactive style that challenges the reader's knowledge in a way that might pertain to routine practice. The first page of each case sets out the presenting symptoms and the information gleaned from the initial consultation. The reader is then asked to consider provisional diagnoses and the investigations that are likely to be requested. Next, the answers to the questions are provided, including the results of investigations actually performed. There may also be additional information, such as the course of the patient's stay or the patient's symptoms. The reader is then asked to modify the provisional diagnoses and whether further investigations are indicated.

In each case, there is a discussion of the patient's management and condition and the final diagnosis, as well as a section that sets out the key features of the disease and its diagnosis and treatment. Finally, some important learning points are identified, together with some references for additional reading.

All of the cases are supplied with results in both conventional and Système International (SI) units. A table of all of the relevant reference ranges in adults is supplied—again, in conventional and SI units. In some cases, the results have been "normalized" to a given reference range from the original patient records to avoid the need to provide laboratory-specific reference ranges. Pediatric reference ranges are supplied in the text where appropriate.

Twelve years ago, the editors of this book initiated a series of continuing education meetings in clinical biochemistry. The core of the meetings was a small number of invited speakers who discussed topics of current interest. One of the sessions was dedicated to the presentation of clinical cases by members of the audience. These cases proved to be one of the most popular features of the meeting, probably because they provided a view of patients' problems that most laboratory professionals did not always have the opportunity to see on a day-to-day basis; they also provided insight into some unusual cases and enhanced practitioners' clinical skills and experience.

Individual case reports have always been crucial to understanding of the pathophysiology of many diseases, especially at a fundamental level. Clinical cases also have an important educational role and one that is increasingly seen as a means of imparting the relevance of a clinical subject to students. Indeed, with the emphasis on problem-based learning by many educational authorities, clinical cases provide good examples of how to solve real clinical problems.

I found this excellent book to be very comprehensive and very useful. This book will be of great interest to clinical biochemists, clinicians, med-

ical students, medical technologists, and trainees in laboratory medicine.

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Instant Notes: Analytical Chemistry. D. Kealey and P.J. Haines. Oxford: Bios Scientific Publishers Limited, 2002, 352 pp., £14.99, softcover. ISBN 1-859961-89-4.

This series of "instant notes" fits very well in today's climate of instant coffee, fast food, *USA Today*, and e-mail. The book meets the stated objective of providing notes across the broad range of analytical chemistry at the undergraduate level. The writing is crisp, and the illustrations are easy on the eye.

I see this as a reasonable supplement to a longer, more conventional text. It would be a handy study guide for a final examination, or for practicing analytical chemists to use in reviewing techniques they do not use on a regular basis. The book is a collection of self-contained capsules, each ~6 pages long. There are useful examples, but no problem sets as in a conventional textbook. What is done, is done well.

Meeting the needs of an undergraduate course in the subject reminds me that most such courses have very little to do with how analytical chemistry is actually practiced today. For example, this and other books regularly cover "polarography", which today would be more interesting for a history of science course. This simply points out that undergraduate courses regularly fall far behind actual practice. As a result, they often do not show students what is currently fun and engaging, and the students then prefer to go to law school.

Although I like this book, it simply does not fit the clinical chemistry audience well at all. There is no mention of immunoassays, antibodies, enzymes, biomarkers, lipids, glucose, hematology, and so forth. This book is a good fit to chemistry students or, perhaps, junior industrial chemists. It simply does not hit the life science topics relevant to the medical laboratory field.

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