and would be beneficial to the clinical biochemist with a rudimentary knowledge of the subject and the clinician who would gain much insight from the appropriate use and limitations of tumor markers.

The first two chapters are dedicated to the fundamentals of tumor biology, with an overview of cell growth cycles, oncogenes, and the effects of tumor growth on organ dysfunction. The second chapter gives a full range of possible disorders of the normal biochemical state brought about directly and indirectly by tumor growth. Illustrations, including case vignettes, are clear and effective in showing how biochemical indicators change with disease progression and response to therapy, although some figures have incomplete legends. The five pictures of bone scans and X-rays occupying five pages could be eliminated altogether without loss of information.

Chapters 3 and 4 deal with the all-important subject of tumor markers. This topic is divided into two separate parts, namely general considerations and clinical applications of tumor markers. The general considerations section gives an overview of the production and secretion of some of the common tumor markers (CEA, AFP, hCG, and the CA-series), with a brief mention of the lesser-known mucins, β-2 microglobulin, and cytokeratins. This section also describes the general principles of interpretation and basic concepts of sensitivity, specificity, assay variability, and ROC curves to determine optimum cutoff points. There is little discussion of predictive values or their limitations, although these terms are used in the subsequent chapter on the applications of tumor markers. An appendix at the end of the book lists the equations for the derivation of these terms; the equation for the efficiency of a test is incorrect and obviously a typographical error. I was disappointed to find no focused discussion on the controversies of screening for cancer with biochemical markers. Chapter 4 is perhaps the most informative and useful section of the book. It discusses the clinical applications of various tumor markers, with solid tumors as the main focus. Apart from a few confusing statements, the information is factual, current, and clearly imparts the important message, to quote from an earlier chapter, that “the ability to measure something does not, however, mean that it should be measured”. There are many current and pertinent references in the reading list at the end of this chapter.

Chapter 5, entitled “Paraneoplastic Syndromes”, describes some clinical conditions that are indirectly associated with malignancy. These conditions, such as hypercalcemia, hypotension, and hypoglycemia, although in themselves not diagnostic of malignancy, may serve as important clues to its possible existence. Finally, Chapter 6 provides the basics principles of treatment of cancer, with a nice section on chemotherapeutic agents and their toxicity.

In summary, this book contains many pertinent facts that laboratorians, clinicians, and students with an interest in cancer would find very useful. Its modest price makes it a handy reference text for the shelves of the personal as well the reference library.

I thank Donald Sutherland, Medical Director, Oncology Patient Services, Toronto-Sunnybrook Regional Cancer Centre, for his useful contributions to this review.

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Toxicologists, clinical chemists, pathologists, and other laboratorians increasingly are drawn into litigation through work-related issues such as medical malpractice, workplace drug testing results, or postaccident Emergency Department testing or through consulting. In many cases, laboratorians become involved because expert or opinion testimony is required to assist the trier of fact (e.g., a jury in a jury trial or a judge in a bench trial) in understanding evidence such as serum alcohol concentrations, cardiac isoenzymes, or surgical pathology reports. Although the expert witness commonly is thought of as an individual with an advanced degree such as a PhD and/or MD, experts may be qualified for any number of reasons, including experience; even individuals who think they may be called to testify only to facts, such as the performance of a test, should consider the possibility of being called as expert witnesses.

Dr. Froede, who is a veteran of many years in the field of forensic medicine, takes the reader from the most basic involvement in any litigation all the way to the more subtle points of litigation processes. While introducing the reader to the legal jargon that all expert witnesses must understand to discharge their duties appropriately, Dr. Froede keeps the book simple and easy to understand, even for novices who are just venturing into their first case or for individuals who anticipate involvement in future legal cases.

In the first chapter, the reader is introduced succinctly to the types of witnesses and what expert testimony is. In the second chapter, readers learn briefly but clearly how to respond when they actually become involved in litigation (e.g., when a subpoena is received). The types of subpoenas that an individual may receive and how to respond to them also are described.

As part of the natural flow of information, the litigative process is explained further in Chapter 3, entitled “Introduction to Evidence”. In this chapter, the reader is presented with the types of evidence and the proper, effective ways in which evidence should be presented.

Because many individuals may never have been in a courtroom or do not understand courtroom protocol, Chapter 4, “The Courtroom Scene”, describes briefly, but in sufficient de-
tail for a witness to visualize, a common courtroom format and how to navigate one’s way into and out of a courtroom without adverse incident. Again, as is done in all chapters of the book, Dr. Froede gives solid practical advice on how not only to execute a courtroom appearance properly but also how to testify effectively, i.e., how to explain science to a trier of fact.

In Chapter 5, “Trial Preparation”, preparation before appearing in any phase of litigation is emphasized strongly, as it should be. This chapter emphasizes meeting with an attorney and discussing all aspects of the potential expert’s credentials, expertise, and expected testimony. Appropriately, the main emphasis in this chapter is on preparation, not only scientific but also strategic. Chapters 6 and 7 take the reader through more of what can be expected pretrial and in an actual courtroom proceeding.

The first seven chapters of the book give guidance that is primarily for the expert witness but that also can be applied to the lay or factual witness. However, it is in Chapter 8, entitled “Guidelines for the Expert Witness”, that the book stresses what is required almost exclusively for the expert witness. Both “The Do’s” and “The Don’ts”, listed in unambiguous terms, are enumerated. Although Chapter 8 is presented primarily as a “bullet list” rather than in full text format, each point is essential and every word important for effective expert witness testimony.

Chapter 9, “Angles of Attack on the Expert’s Testimony”, goes beyond the rudimentary skills required for the delivery of appropriate expert witness testimony and presents the pitfalls of expert witness testimony and areas where an expert may be attacked by opposing counsel, justifiably or not. Each point stated in Chapter 9 is well worth scrutinizing carefully before ever attempting to deliver expert witness testimony. The points made are also applicable to lay testimony under some circumstances.

Chapter 10, “Summary: Use, Misuse, and Abuse of the Expert Witness”, again is presented as a bullet list. Each point provides valuable information on how to make one’s expert witness testimony useful to the legal system and, at the same time, to avoid being misused and/or abused.

The material presented in this book provides a short, practical, to-the-point guide rather than a lengthy treatise on the subject. However, it is worth reading because the book is written from experience, and it is experience that, in most cases, separates an effective expert from one who is ineffective in explaining science. After having been involved in approximately 600 legal cases over the past 14 years, I strongly recommend this book, both to those who have never been involved in litigation but feel it is a possibility and to those who currently are actively involved in expert witness testimony.

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Correction

In the article by B. Schlain, H. Frush, C. Pennington, G. Osikowicz, and K. Ford, entitled “Two-stage procedure for evaluating interassay carryover on random-access instruments”, 1996;42:725-31, Eq. 11 on page 731 should read:

\[
1 - \sum_{i=1}^{q} [1 - Pr\{1_i > ULI\} - Pr\{u_i \leq LLI\}]
\]

\[- \sum_{i=q+1}^{q} [Pr\{1_i \leq LL\} + Pr\{u_i > UL\}]]

The authors apologize for any inconvenience this may have caused.