
This 500-plus page book represents an enormous effort and describes in great detail the development of many areas of clinical chemistry. The author has a passion for his subject and a great understanding of the principles of chemistry and their application to clinical issues. He also presents some of the philosophic milieu in which the scientific work took place. The book describes the scientific advances and failures as the discipline of clinical chemistry evolved. The references and attention to detail are outstanding. Virtually every important paper in the field is cited, as well as important commercial products. The author includes >95 pictures of chemists and pioneering analytical instruments. The bibliography cites >130 books in addition to the meticulously referenced citations in each chapter.

The author chose to describe the history of clinical chemistry by reviewing its development from the beginning to the 1800s in a global manner. This is presented in the first two chapters. Because of its diversity, he then describes developments in the last two centuries by following a thematic approach in which the evolution of measurement of specific analytes is carefully described. Chapter III describes the development of urine chemistry, including the analysis of urea. Chapter IV covers the development of methods for protein analysis. Chapters V to XI describe measurement of various analytes up to the turn of the 20th century, and Chapters XII to XIX review the progress in analysis during the 20th century. Chapter XX describes the discipline of clinical chemistry as it currently exists.

The description of the science, and how the analytical and medical fields evolved together, is wide-ranging and complete. For example, Chapter XIII starts with the description of Benedict’s reagent for urine glucose. The author then describes the development of methods for blood glucose by Folin and Benedict, the Somogyi protein-free filtrate, the use of tablet and dipstick chemistry, advances in chemical reagents, and finally the current enzymatic methods. Similar complete descriptions are presented for other analytes.

The author describes more than the simple discoveries of science and technology. He includes the medical and social thinking of the times and their impact on the profession. The descriptions of history and its implications are very useful. One of us (A.J.P.) was struck by the passage (page 220) in which the author noted that England lagged behind the continental countries in the laboratory investigation of disease because it was considered inappropriate to spend funds on laboratories or research workers. The money had to be spent on patient care. One hundred years later we find ourselves in the same position. Hospital laboratories may not expend resources to investigate disease! Thus, opportunities to study disease are missed.

There are a few things we would have preferred to be done differently or expanded, and these are more judgment than criticism. Some readers may find too much detail about assays based on incorrect theoretical assumptions or techniques. We would have preferred more information on the development of cardiac enzymes and isoenzymes as diagnostic tools for myocardial infarcts by Lipman, Karmen, and Wroblewski as well as Green and the Wisconsin Enzyme Institute. In addition, more on the role of blood gas measurement in making open heart surgery possible and the role of electrolyte measurement in making it possible to use intravenous replacement therapy would be appreciated. We also would like to have more description on the role of proficiency testing, which increased confidence in laboratory results, the impact of Dr. Gerald Cooper’s work on improving cholesterol measurement, and the development of methods to monitor endocrine abnormalities.

However, with such a vast subject we were impressed by the author’s very successful effort. This book definitely belongs on the shelf of every practicing clinical chemist or chemical pathologist!

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The title of this book is something of a misnomer. The authors focus exclusively on gas chromatography–mass spectrometry (GC/MS) in toxicology. In Germany, where this book was written, toxicology usually is considered under the broader discipline of clinical chemistry. In the United States, these two subjects often are considered as distinct, especially forensic and environmental toxicology. Thus, a more appropriate title might be “GC/MS in Toxicology”.

The book is divided into four sections. The first section, which deals with fundamental principles of analysis by GC/MS, includes theoretical aspects, injection techniques, columns and carrier gases, detectors, and quantification. The second section, on drug screening, covers epidemiology, methods of sample pretreatment, and screening of urine by GC/MS. Section three covers environmentally hazardous substances in industrial medicine, and the final section discusses organization and cost-effectiveness in the clinical laboratory.

This volume was translated into English from the German original. That is not a major problem because the translation is, with only a few exceptions, clear and understandable. In addition, the primary