
This relatively inexpensive paperback, edited by James P. Gosling (author of the highly informative review of a decade of development in immunoassay technology, published in this Journal in 1990), is advertised to be the first practical manual of immunoassay designed to help any biologist develop an immunoassay in any common format for any suitable analyte. It is indeed an excellent compilation of the basic steps in immunoassay design and development.

Immunoassay now pervades all disciplines of laboratory medicine and continues to be one of the most versatile and sensitive assay techniques available. Dr. Gosling has assembled an accomplished group of immunoassay experts who provide clear and uncomplicated accounts of the practical aspects of immunoassays. A useful feature of the book is the inclusion of easily identified, step-by-step protocols and tips throughout the text. (A categorized list at the beginning of the book serves as quick guide to the various protocols.) In 10 chapters, this book outlines the “how to” of the major steps in immunoassay reagent preparation and immunoassay development. Individual chapters present the underlying theory and valuable guidance and practical hints on raising, choosing, and characterizing antibodies; immunogens; labels (including conjugate preparation); endpoints; solid-phase reagents; standards; assay optimization and validation; data processing; and quality assurance. An appendix lists details of reagents and suppliers, including an Internet address for a list of suppliers. (My copy of the book did not contain the other appendix starting at page 299.) In an age of nonisotopic immunoassay, the editor has not ignored the continued utility of radioisotopic labels and has included ample practical details on building radioisotopic immunoassays. Another point of novelty claimed for this book is the first-ever explanation of immunoassay data processing. In chapter 10, Barry Nix and David Wild present a thorough account of data processing that includes protocols and tips as well as worked examples illustrating the different types of curve-fitting options. This book will be an invaluable practical resource for students and research workers trying to come to grips with the complexities of immunoassay technology.

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The first book, Dates in Medicine: A Chronological Record of Medical Progress over Three Millennia, is a collection of “important milestones in the development—since antiquity—of modern medicine”. It is a massive listing of approximately 6000 dates for persons and events from 8000 BC to 1999. I was somewhat confused by the frequent use of birth dates rather than the date of the medical progress event, and it would have helped to have had an index. But of greater concern was the absence of dates of important medical progress events over the last 50 years. For example, there are no dates for the introduction of enzyme markers in serum that signal acute myocardial infarction [1954 for serum glutamic oxaloacetic transaminase (SGOT), 1956 for lactate dehydrogenase (LDH) isoenzymes, 1965 for creatine kinase (CK) MB, and 1989 for troponins] and liver damage [1956 for serum glutamic pyruvic transaminase (SGPT)]. In addition, no dates are recorded for the change from colorimetric, flame photometric, and atomic absorption methods to electrochemical methods using ion-selective electrodes for the simultaneous determination of $Na^+$, $K^+$, $Ca^{2+}$, $Cl^-$, $PO_4^{3-}$, $P_{O_2}$, $pH$, and glucose to provide rapid results for critical care areas (i.e., operating rooms, adult and neonatal intensive care units, and emergency rooms). Furthermore, the profound impact that automated instrumentation (e.g., introduction of the Auto Analyzer by Skeggs in 1957) and computers have made in clinical chemistry has no date. How do I answer the editor’s question about this book’s “value for the discipline of clinical chemistry”?

During a brief literature search in our hospital library I found another book by the same author that covered just about the same historical material. This second book is entitled A Dictionary of the History of Medicine. Its alphabetical dictionary format makes it easy to use, and one is able to quickly glean the wealth of information it contains (“over 10,000 key entries”). Parenthetically, this dictionary serves as an excellent, albeit expensive, index for the first book. No entry for clinical chemistry was found, but the author, being English, gave the equivalent British name, chemical pathology. Under this entry the book noted that Rouelle found NaCl and KCl in blood (1773), cited Folin’s colorimetric micromethods (1919–1934), and mentioned Berson and Yalow’s radioimmunoassay for blood insulin (1956). There were cross-references to chromatography and diagnostic enzymology, and other entries for blood analysis, blood glucose, blood gases, and pH were readily found. Individual physicians and scientists are listed, especially if they were Noble Prize recipients; however, the laboratories or other organizations supporting the efforts of these individuals were rarely mentioned. This lack of acknowledgement is shown by the entry for Harold Varmus (born in 1939), who shared the Noble Prize...