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BOOK REVIEW

Carl A. Burtis and David E. Bruns: Tietz Fundamentals of Clinical Chemistry and Molecular Diagnostics, 7th ed.

Elsevier, Amsterdam, 1075 pp, ISBN 978-1-4557-4165-6

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What a joy it is to see yet another edition of Tietz's book! The latest version of this well established textbook of clinical chemistry has been significantly revised to contain new information. Its scope has been expanded to include molecular diagnostics. As a result, there are new or updated chapters on the field in the areas of genetic testing and the genetic basis of diseases. Related topics such as "Pharmacogenetics" and "Genomes and Nucleic Acid Alterations" make a first appearance.

Forty-seven new authors and 53 others from the 6th edition have collaborated to produce this edition. They read like the Who's Who of clinical chemistry. The book has a total of 50 chapters that are grouped into six sections entitled Principles of Laboratory Medicine, Analytical Techniques and Instrumentation, Analytes, Pathophysiology, Molecular Diagnostics and Reference Information. The last section should be of great value to the practicing clinical chemist. As with previous editions of Tietz's books, it contains detailed reference intervals and values based on gender, age groups, different conditions and ethnicity, together with the critical values of many analytes and the therapeutic and toxic levels of drugs.

This edition also contains learning tools that have either been added or expanded. Each chapter begins with a set of learning-objectives, which is followed by a listing of key words and their definitions before the content of the chapter begins. It ends with a set of multiple-choice review questions and references.

While the book is predictably strong on accepted mainstream topics, readers looking for insights on some newer concepts may feel a tinge of disappointment. They should remember that this is a textbook and newer concepts need to become accepted into the mainstream before they can appear in books. Furthermore, this is a book on "Fundamentals". Do not expect, therefore, to see in the index current buzzwords in such as "personalized medicine/diagnostics", or "companion diagnostics".

Discussions on the uncertainty concept, traceability and the Joint Committee for Traceability in Laboratory Medicine appear in two separate chapters (by different authors) when the topics may have been better together in the chapter on Quality Management. Accreditation should have received a more detailed treatment and the IFCC-recommended ISO 15189 Standard rather than the ISO 9000 should have been discussed in this chapter. It has been common aspiration of clinical chemists that laboratory test results and reference intervals should be comparable and independent of the medical laboratory that produced them. This is the Holy Grail of clinical chemistry. As such, the concept of harmonization, which has been around for sometime, albeit somewhat in the background, should have received mention [1].

However, these shortcomings, if at all, are minor in what is otherwise an excellent and timely update of our rapidly changing field. Tietz's books are an indispensable and comprehensive resource for anyone associated with clinical chemistry. Though Edward Ashwood is no longer amongst the editors, he has, nonetheless, co-authored a chapter. It is inspiring to see these venerable leading lights of our profession still making contributions to education. Long may they continue to do so.

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Reference

1. http://www.harmonization.net/Pages/default.aspx. Accessed 15 Nov 2014.