Review of The Metabolic Syndrome. Christopher D. Byrne and Sarah H. Wild, eds. Chichester, West Sussex, England: John Wiley & Sons Ltd., 2005, 432 pp., $110.00, hardcover. ISBN 0-470-02511-5.

This book ambitiously reviews a subject that is undergoing shifts in popularity at a rate equaled only by the speed of identification of relevant adipocytokines and inflammatory markers. Nevertheless, the editors tackle the controversial topic with ease and competence. The collection highlights the underpinning elements of the metabolic syndrome—excess visceral adipose tissue fostering poor responses to oxidative stress and inflammation, which worsen and are worsened by insulin resistance and lead to vascular dysfunction. Although the clinician easily recognizes the phenotype of abdominal obesity with its accompanying complications, the details of the pathophysiology are exceedingly complex, and the text serves to clarify underlying themes, if not to render them simple, which they are not. Cardiovascular disease and diabetes are the tip of the iceberg of cardiometabolic disease—exemplified in the cover art—and the high and increasing prevalence of metabolic syndrome predicts the burgeoning of cardiovascular disease.

The epidemiology of metabolic syndrome is well presented in the first few chapters, including the influence of ethnicity and the global burden of metabolic syndrome, which the editors estimate at 10%–23% of adults worldwide, based on published prevalence data and informed estimations for which data are not available. Metabolic syndrome in adolescence is only tangentially referred to, despite the frightening rise in pediatric obesity. Although the definition of the metabolic syndrome and the surrounding controversy is nicely covered in the first chapter, the question of whether the syndrome exists at all (i.e., whether the collection of disorders connotes a risk greater than the sum of the individual abnormalities) receives little attention. Consideration and explanation of the pathophysiology is quite strong, and the chapters on adipocytokines and inflammation are clear and well written, including the description of the interaction between lipids and inflammation, which followed previous descriptions by Peter Libby. The fetal origins theory is well explained and the chapter on genetic predisposition is accessible to the nongeneticist. The reader may find, as I did, that the diagrams, presented in most chapters to clarify the relationships between elements of and causal factors for metabolic syndrome, do not contribute to understanding of interactions that may be too complicated to be easily summarized in a schematic.

This book will best serve researchers wishing to gain a deeper understanding of the metabolic syndrome, rather than clinicians. The chapter devoted exclusively to treatment, however, does give useful advice about pharmacotherapy, including the broad recommendation to use medications that address more than one aspect of the metabolic syndrome but do not worsen other facets (e.g., avoiding beta blockers in favor of ace inhibition). The sections addressing dietary treatment of metabolic syndrome now seem outdated because they do not include newer information, published subsequent to this book. For example, recent studies such as the Women's Health Initiative have shown that low-fat diets may not be superior to other diets in reducing cardiovascular disease. Another shortcoming of the book is the unfortunate dearth of consideration of the difficult but essential issue of implementing lifestyle changes so crucial to reversing or stabilizing the syndrome and preventing its consequences. Exercise as a therapeutic intervention is not very well covered.

Several books on the metabolic syndrome have been or will soon be published, including clinical handbooks and several edited texts (Reaven 1999, Moller 1993, Levine 2006). The Byrne and Wild collection, however, clearly summarizes the relevant research and is an excellent resource for clinical researchers and epidemiologists who are investigating the metabolic syndrome and seeking to better understand the epidemiology and pathophysiology of the syndrome that puts so many individuals at risk for cardiovascular and endocrine consequences.

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Clinical Diagnostic Technology-The Total Testing Process, Volume 3: The Postanalytical Phase. Kory M. Ward-Cook, Craig A. Lehmann, Larry E. Schoeff, and Robert H. Williams, eds. Washington, DC: AACC Press, 2006, 216 pp., $65 ($52.00 AACC members), softcover. ISBN 978-1-59425-055-2.

This book, volume 3 of a series, addresses the postanalytical phase of the testing process. Volumes 1 and 2 cover the preanalytical and analytical phases, respectively. All 8 chapters of this last volume are interesting in principle, but strictly speaking only chapters 2 and 4 and parts of chapters 1 and 3 deal with the postanalytical testing phase. Because of the focus on US laboratories found in most of the chapters, parts of the book are less relevant to readers outside of the US.

The 1st chapter provides an overview of the postanalytical phase, quality goals, and quality control. Quality systems and general management are treated in more detail. This chapter provides important references for the reader who wishes to further pursue the material. Chapter

2, one of the better chapters in the book, deals with verification and autoverification of test results, detailing the use of delta-checks in a very educational way, and ends by describing the possibilities for using middleware. Chapter 3 deals with evidence-based laboratory medicine (EBLM), of which some parts are postanalytical. In well-written short paragraphs, this chapter gives an overview of the different steps in EBLM from the preanalytical to the postanalytical phase, and it lists valuable web resources in 2 tables. I think, however, that the difficult subject of EBLM implementation should have been dealt with more extensively. Chapter 4 addresses distribution of laboratory results, discussing among other things the speed of delivery and advantages and disadvantages of printed, electronic, and telephone reports. The section on laboratory information systems is too short to give much valuable information, but this shortcoming is compensated for by the last paragraph, which lists many resources on laboratory informatics, most of them in the US. Chapter 5 deals with automated digital cell morphology. It is puzzling that the book includes a whole chapter on this topic, and that the chapter deals almost solely with CellaVision. Alternative solutions should have been discussed, such as different digital cell morphology EQA systems used in clinical pathology and hematology. Chapter 6 deals with the important topic of electronic health informatics networks. The chapter is not focused on laboratory medicine, however, and is not specific to the postanalytical phase, as would be natural in this book. Chapter 7 deals with biosensors, miniaturization, and noninvasive techniques. It starts with a short section on method comparison, including among other things Bland-Altman plots and Deming regression. This section is too short to be of much value for the reader. Thereafter, principles of biosensors are described in an educational way, and this section is well worth reading. The last chapter deals with clinical laboratories in the 21st century and "what has changed the last 3 years" (since the publication of Volume 1 of this book series). This chapter describes the major health challenges faced by the US in this century and some of their potential consequences for laboratory medicine.

In conclusion, parts of this book are very interesting. Unfortunately, however, the chapters do not fit very well together and only a few of them strictly deal with the "postanalytical phase".

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Natriuretic Peptides: The Hormones of the Heart. Aldo Clerico and Michele Emdin, eds. Trento, Italy: Springer-Verlag Italia, 2006, 184 pp., $149.00, hardcover. ISBN 978-88-470-0497-9.

This is an excellent book by one of the major groups currently involved in cardiac natriuretic peptide research. This book is directed to all readers seeking a deeper understanding of the cardiac natriuretic peptide system (physiologists, cardiologists, and clinical chemists). The backgrounds of the editors (clinical physiology, cardiology, and endocrinology) strongly influence the concept of this book; the principal aim is to demonstrate that the heart is a multifunctional and interactive organ that exchanges information with the nervous, endocrine, and immune systems. Evidence for the endocrine function of the heart revolutionized the traditional mechanical conception of this organ and unveiled new and fascinating perspectives that include the area of laboratory diagnosis. This book reviews current knowledge on the physiology and pathophysiology of cardiac endocrine function and provides updated information on diagnostic, clinical, and therapeutic aspects of cardiac and systemic diseases.

Chapter 1 summarizes the historical background of the discovery of the cardiac natriuretic peptide system. Chapter 2 summarizes current concepts regarding the physiology of the heart and may be too detailed for many laboratorians. Chapter 3 does an excellent job of presenting the complete physiology, pathophysiology, biochemistry, and molecular biology of the natriuretic peptide family, including the noncardiac family members C-type natriuretic peptide and urodilatin. Chapter 4 is of particular interest for the clinical chemist and is written very well. This chapter reflects the great experience of chapter coauthor Mauro Panteghini, who is a member of several international marker standardization committees. It reviews the methodological aspects of natriuretic peptide testing with a focus on the commercially available B-type natriuretic peptide (BNP) and N-terminal proBNP (NT-proBNP) assays. The recently described glycosylation of NT-proBNP is not mentioned, however. Chapters 5 and 6 nicely review clinical considerations and applications of natriuretic peptide testing in cardiac and noncardiac diseases, including the effects of age and sex, as well as obesity, on reference limits. The official recommendations of cardiological and clinical chemistry societies on routine natriuretic peptide testing are included. Chapter 7, aimed at clinicians, addresses the cardiac natriuretic hormone system as a target for therapy, including the fact that clinical trials on the use of natriuretic peptides to treat heart or renal failure and on drugs targeting natriuretic peptide metabolism have so far been somewhat disappointing. The book ends with "inconclusive" remarks on the past, present, and future of natriuretic peptides.

Overall the editors have succeeded in compiling an excellent book that would be an important addition to the libraries of those who wish to gain a deeper understanding of natriuretic peptides and the endocrine function of the heart. It also summa-