

Respiratory: An Integrated Approach to Disease. By Andrew J. Lechner, George M. Matuschak and David S. Brink. New York: McGraw-Hill Professional; 2011. 424 pp. US \$60 Paperback. ISBN: 978-0071635011.

An explosive amount of scientific information generated today requires medical students to keep abreast of latest innovations and paradigm shifts in basic science and be capable of adapting it all to clinical practice. *Respiratory: An Integrated Approach to Disease* elegantly connects the dots between cell biology, anatomy, physiology, pharmacology, pathology, and clinical medicine to draw a comprehensive picture to the medical student by illustrating the physiological processes of respiration, basis of diagnosis, diagnostic tools required, and lung diseases. The book is organized systematically into seven sections. Introduction to the respiratory system and methods of diagnosis are covered in the first two sections, followed by respiratory diseases in the other sections. By addressing each subtopic as a chapter and in appropriate depth, the authors have done a remarkable job distilling and presenting essential information relevant to the respiratory system. On the other hand, the first section delves into the physics and chemistry governing the exchange of carbon dioxide and oxygen in blood, which may be extensive for medical students transitioning into their clinical years.

Highlights of this book include clinical correlations to every concept addressed in each chapter, followed by case studies and their solutions. Also at the beginning of every chapter, the objectives are clearly stated, expounding the knowledge that will result after reviewing that chapter. Although derivation of the Henderson-Hasselbach equation in Chapter 17 may seem futile, thorough understanding of this equation is required in order to interpret the diagnostic test (arterial blood gas test) used to determine acid base balance in blood and, consequently, underlying respiratory problems. Despite all the beneficial aspects of this book, it is hard to overlook numerous grammatical errors that not only make it hard to

read but also are confusing due to the complex scientific concepts the authors have tried to communicate. Further, some of the figures are improperly labeled, and figure legends are far from clear.

Throughout the book, the authors maintain a tone encouraging study of the respiratory system relative to basic science. The writing and the material in the book is designed to help students grasp the scientific foundation behind the diagnosis, clinical setting, and relevant new developments, thereby discouraging compartmentalized learning. Overall, this book is a useful learning tool for medical students in clinical training as well as established physicians who are looking for a current, readable, and comprehensive reference.

Asha Jayakumar, PhD
Yale University

Primer of Biostatistics. Seventh Edition. By Stanton A. Glantz. New York: McGraw-Hill; 2011. 320 pp. US \$65 Paperback. ISBN: 978-0071781503.

The seventh edition of *Primer of Biostatistics* by Stanton A. Glantz should be a reference book found on the shelf of anyone associated with the life sciences. As a beginner to the field of biostatistics, I cannot say enough about this book. It is well written and begins with a very current introduction to the field of biostatistics, explaining its vital application to the life sciences. Following the introduction, it walks the reader through basic biostatistics concepts to more advanced biostatistical analysis, written in a very precise and simple manner. This feature helps in making the book very user friendly to beginners, and, in fact, no preceding experience with the subject matter is required. In addition to the simple text, each chapter includes relevant problem sets that are worked out (in the appendix) step by step with a detailed explanation. The appendices contain all relevant statistical tables and power charts, as well as a separate one-page table that summarizes the methods to test various hypotheses. As an extra bonus, the

book includes a CD (requiring Microsoft Windows 2000, XP, or Vista) with statistical tests to analyze one's own data set. Unfortunately, the CD is not very easy to install and run.

Nonetheless, between the text and appendixes, one would feel confident enough to tackle biostatistics. I would recommend *Primer of Biostatistics* to anyone in the for-

mal or informal biostatistics setting, ranging from students (both undergraduates and graduates) to bench scientist and all those in between.

Uzma Alam
Yale School of Medicine
Department of Epidemiology
& Public Health