as “adverse selection.” One way to prevent adverse selection is to promote the formation of groups, or alliances, for purchasing insurance that will spread the associated risk and make premiums more affordable.

Adverse selection has garnered extensive political attention. It served as the driver behind the Clinton proposal to create “regional health alliances,” and it prompted the individual mandate in the 2007 Massachusetts health care plan shepherded into law by then Gov. Mitt Romney (who as a Republican presidential candidate now disavows the mandate). Newt Gingrich’s “Contract with America” in 1994 helped shift the focus of health care reform from universal coverage to cost containment in an effort to create a balanced budget. Throughout the book, Dr. Starr explores numerous political approaches to adverse selection and examines the respective effectiveness and validity of the various approaches.

Material in the book is organized chronologically, beginning with the first mention of “social insurance” and “protection against the costs of sickness” in the 1912 presidential election by the Progressive Party. The text touches on relevant historical predecessors of the PPACA such as a failed 1943 bill that proposed comprehensive health insurance and the emergence of employer-based health insurance after World War II. In 1974, Richard Nixon proposed comprehensive health insurance that relied on an employer mandate, but the Watergate scandal ended the effort. Dr. Star, who was an advisor to Hillary Clinton’s Health Policy Task Force, then proceeds to devote almost a quarter of the book to the Clinton administration and its impact on health care policy. The author is sympathetic to the Clintons but critical of the way they introduced their policy and of the media, and the book is valuable for its insider’s analysis of the political factors that led to the failure of the Clinton health plan. The book ultimately concludes with chapters on the Massachusetts plan, the presidential election of 2008, and the success of the Obama administration in effecting passage of PPACA in 2010. Although occasionally dense, Remedy and Reaction is generally quite readable for the non-expert. It would be of greatest interest, though, to historians and health care policy analysts. If, however, the U.S. Supreme Court finds the individual mandate to be unconstitutional, then politicians and lobbyists on both sides of the debate will be scouring the book for insights and strategies for the next battle over comprehensive health coverage.

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Fundamentals of Medical Physiology. Edited by Joel Michael. New York: Thieme Medical Publishers, Inc.; 2011. 633 pp. US $79.99 Paperback. ISBN 978-1604062748.

Fundamentals of Medical Physiology is a concise textbook of medical physiology written for first- and second-year medical students or anyone interested in learning the core principles of physiology through an introduction to clinical cases in the context of each organ system. The book is divided into 10 sections, each prefaced with a general outline of topics covered, a brief overview of an organ system, and presentation of a relevant clinical case followed by open-ended questions to think about while reading the section. While the organization of chapter topics is conventional, the book’s focus on highlighting recurring themes underlying physiological mechanisms (e.g., homeostasis, energy, balance of forces, reservoir, flow, elasticity, and cell-cell communication) is novel and provides the reader with additional, alternative ways in which to assimilate and integrate information. Schematic diagrams, illustrations, tables, and figures are amply provided and are useful in understanding and reviewing key information. Unfortunately, the first section, “Foundations of Physiology,” which covers basic cell biology and the concept of control systems contributing to homeostasis, is not as detailed as the other sections and thus is best taken as a brief 24-page refresher. As a side note, minor errata are also present in the text, most of which are identifiable in con-
text. For example, microfilaments are incorrectly introduced as being “~35 nm in diameter,” but the same chapter subsection also provides the correct relative diameters of microtubules and intermediate filaments. Perhaps subsequent editions of the textbook will address these issues.

The strength of the textbook lies in its ability to promote active learning by applying acquired physiological knowledge to clinical cases. The initial case and open-ended questions of each section, as well as case-based “Applying What You Know” questions at the end of each chapter, are engaging even for the non-medical student and provide a broad conceptual framework that helps the reader fit pieces of information together. Importantly, answers to all questions and a concise case analysis from both clinical and physiological perspectives are given at the end of each section. Furthermore, an access code is provided for a supplementary interactive online study aid, WinkingSkull.com PLUS, which includes two additional clinical cases on the cardiovascular and respiratory systems and 814 images from the *Atlas of Anatomy* with a timed test feature. The online program also gives readers the option of displaying anatomy labels in English or Latin. Taken together, these qualities make *Fundamentals of Medical Physiology* a valuable resource.

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Small Molecule Therapy for Genetic Diseases. Edited by Jess G. Thoene. New York: Cambridge University Press; 2010. 223 pp. US $110 Hardcover. ISBN 978-0521517812.

Small Molecule Therapy for Genetic Diseases is a collection of articles that commemorate the Orphan Drug Act that was passed in 1983 after sustained effort from patient advocacy groups. The legislation gave pharmaceutical companies various incentives, such as tax credits, expedited review, flexible clinical trial requirements, and exclusive marketing to develop treatments that would otherwise be unprofitable. A recent search in the on-line Orphan Drug database (http://www.accessdata.fda.gov/scripts/opdlisting/oopd/index.cfm) reveals that 370 drugs have been approved for 180 diseases, with approximately 2,000 more drugs in the pipeline. This turnout makes former Office of Orphaned Drugs Director Marlene Haffner proudly conclude at the end of the first chapter that the “taxpayer’s dollars have been well spent.” The majority of the approved products are biological agents such as enzymes, antibodies, or hormones. Another significant portion of drugs are cytotoxic agents for malignancies or autoimmune diseases. Only 24 agents are small molecule drugs for genetic diseases, but it is this category of drugs that provides the focus for the rest of the book. Although macromolecular therapy may dominate the post-genomic world, the authors remind us that small molecules have many distinct advantages, such as easy delivery, straightforward pharmacokinetics, and minimal immune interactions.

After an introductory section covering legislative backgrounds, infrastructures, and pharmacology principles, the book reviews 11 examples of effective small molecule therapy. They are grouped by the molecules’ modality of action as co-factors of enzymatic activities, activators of alternative pathways to circumvent metabolic defects, and metal conjugates. In each chapter, an overview of the pathogenesis and epidemiology of the condition is followed by clinical trial and case study data of the drug.

The book targets three types of readers: clinicians and clinical scientists, patients and patient advocates, and policy makers. The sense of hope and encouragement that permeates the pages enables the book to motivate physicians and researchers to use and develop small molecule therapies. But someone familiar with biomedical sciences will likely find the articles rather rudimentary. Although the writing is void of jargon and explains the clinical data in more palatable terms than a Cochran Review, it would be helpful to know what scientific inquiries.