manner that is concise, understandable, and particularly practical.

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“Why would you read a book about some doctor who didn’t win a Nobel Prize or isn’t Jack Kevorkian?” my friend wanted to know. I was telling him about Jake, Leon O. Jacobson, M.D.: The Life and Work of a Distinguished Medical Scientist, but he didn’t seem too impressed. Indeed, Leon O. Jacobson had a successful medical career, but the average person probably wouldn’t think of his life as flashy or overly exciting. Still, author and former colleague Eugene Goldwasser manages to present an absorbing and sometimes fascinating biography of Jacobson’s life.

Jacobson’s love of medicine began during his years as an elementary school teacher, when he constantly had to take care of sick students. He later matriculated at the University of Chicago’s School of Medicine and ultimately became a hematologist. Jacobson’s research mainly focused on red blood cell production and the effects of radiation on red blood cells. One chapter of this book follows Jacobson’s work with erythropoietin (epo), a hormone involved in controlling the production of red blood cells. Jacobson made the important discovery that the kidney was the source of epo, and he lived to see epo become a therapeutic agent that is now used to treat patients who have certain types of anemia. Anyone with an interest in medicine will appreciate the stories of Jacobson pursuing different research questions and performing novel treatments on patients. Moreover, people who are curious about the inner workings of academia will enjoy reading about Jacobson’s stints as a University of Chicago dean and as the director of the Argonne Cancer Research Hospital. Goldwasser divulges some of the tactics that were used by certain administrators and professors to get what they wanted, which presents an interesting look at the politics of academia.

Goldwasser worked with Jacobson for many years and affectionately calls him “Jake” throughout the book. However, Goldwasser doesn’t put so much bias into the book as to be overly sentimental. He presents Jacobson as an intelligent person who was kind to his friends and patients, while also possessing a clever tongue. Many of Jacobson’s witticisms are scattered throughout the book.

After successfully cajoling a patient’s wife into donating $9,000: “[I] sealed it with a kiss. She’s really not good-looking and is 70 years old.”

Putting an end to the over-effusive speeches that were being made about Jacobson and the Argonne Cancer Research Hospital at dinner: “There has been much said in glowing terms about our institution; now can someone please say something good about the Chicago White Sox?”

While Jacobson is not a world-famous doctor, he accomplished much during his career. Readers with a basic knowledge of science will be interested in the chapters about his research, and Jacobson was such remarkable person that a general reader will also enjoy this biography.

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Another book in the series of BIOS Instant Notes, Medical Microbiology provides
an introduction to a variety of today’s important human pathogens in a clinically relevant context. Truly, this book is what its name suggests: an “instant” reference. It probably will provide the most help to those with a scientific background who need a means of quickly looking up pieces of information they have forgotten or for undergraduates interested in the material but not looking to be inundated with mechanistic detail.

The book begins with a broad introduction to microbial pathogenesis, with some attention paid to pathogen biology and life cycles and human immune responses to various infections. Certainly not enough information for first-time learners, this section in particular should serve only as a refresher for a reader who understands the fundamental concepts of microbiology, immunology, and cell biology. The book then divides pathogens into three major groups: viruses, bacteria, and eukaryotic organisms. Each infectious agent (or more typically, a family of pathogens; e.g., spirochaetes or influenza viruses) is described in two to five pages. Attention is paid to the basic biology of the pathogen, mechanisms of pathogenesis, distribution of the disease, clinical presentation, and prescribed treatment for infections.

Following the sections on human pathogens is a section titled “Infections: diagnosis, treatment and prevention.” This reader found this section a bit difficult to navigate. The authors attempted to cover quite a bit of material, including laboratory diagnosis techniques, drug families, antibiotic resistance and mechanisms of resistance acquisition, and vaccines. Drugs and vaccines would better have been addressed in their own section. Despite this, the material in this section is informative and easy to understand, as is the rest of Medical Microbiology. The book concludes with a well-organized, albeit by no means exhaustive, overview of the clinical manifestations of various infections, with subsections such as “Lower Respiratory Tract Infections” and “Infections in Immunocompromised Patients.” Presentation, treatment, and prevention strategies are described for each spectrum of infections.

Overall, Medical Microbiology is a comprehensive overview of today’s clinically relevant human pathogens, ideal for science students and biologically oriented individuals who are looking for a quick reference guide. While the book, for the most part, flows well from one chapter to the next, readers will likely find the index particularly helpful in finding what they are looking for, as certain topics are addressed in multiple sections. The book is well-written and straightforward with minimal unexplained jargon or terminology. It would make a welcome addition to any biologist’s bookshelf. One last note: Readers should be aware this book is written by three British professors, and thus much of the data presented regarding prevalence and relevance of certain infections pertains to the United Kingdom, rather than to us here in the United States.

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As the cost of PCR continues to fall, medical microbiology will embrace such concepts as viable but nonculturable (meaning they can be detected but cannot be cultured in the laboratory), which are currently accepted in disciplines such as environmental microbiology, with a concurrent increase in the reliability of diagnosis.

William Irving, Tim Boswell, Dlawer Ala’Aldeen. Instant Notes in Medical Microbiology covers medical microbiology from the molecular biology of infectious agents right through to the clinical management of the infected patient, including disease pathogenesis, diagnosis, and the use of antimicrobial therapy. The first section covers how micro-organisms spread and cause disease in humans, and how the human body responds to infection in general. The next three sections give a broad outline of the important properties of human infectious pathogens; split into viruses, bacteria, and eukaryotic.