Revenge of the Microbes

By Abigail A. Salyers and Dixie D. Whitt
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This book, for “the general public about antibiotics and resistance to them,” is the authors’ first attempt at such a publication. They are both well-known scientists and microbiology educators who have written textbooks on the subject.

As would be expected, some of the material in Revenge of the Microbes is a little too advanced for the “general public”; however, for students of medicine, and members of ABSA, this is an excellent little book that makes a strong attempt to orient the reader to the problems of antimicrobial resistance and the potential etiologies. It is particularly refreshing that potential contributors to the problem are not lambasted. Discussions on the use and abuse of antibiotics by physicians, veterinarians, farmers, and industry are presented in a balanced fashion. The dentists somehow escaped discussion, although they are big antimicrobial users.

I especially enjoyed the historical coverage and the issues to ponder that occur at the end of each of the 11 chapters. Following is my evaluation of each chapter, in parentheses, after each title:
1. Magic Bullets, Miracle Drugs (Excellent)
2. A Brief Look at the History of Antibiotics (Excellent)
3. Bacteria Reveal Their Adaptability, Threatening the Brief Reign of Antibiotics (Simple and accurate)
4. Antibiotic-Resistant Bacteria in the News (The reporters get their due.)
5. Antibiotics that Inhibit Bacterial Cell Wall Synthesis (Clearly detailed)
6. Antibiotics that Inhibit the Synthesis of Bacterial Proteins (Good, but eperezolid has not “hit the market” yet)
7. Fluoroquinolones, Sulfur Drugs, and Antituberculosis Drugs (Treatment specifics of antibiotic choices and side effects are not data-based and material ventures too far from the principles under discussion.)
8. Bacterial Promiscuity: How Bacterial Sex Contributes to Development of Resistance (Beautifully written)
9. The Looming Crisis in Antibiotic Availability (A must read)
10. Antiseptics and Disinfectants (A practical and simple summary)
11. Antiviral, Antifungal, and Antiprotozoal Compounds (Shows that bacteria are not the only antimicrobial-resistant microorganisms)

The authors’ folksy writing style makes reading the book very pleasant. It reminded me of many of the authors in the United Kingdom whose writing style keeps one interested and awake.

Revenge of the Microbes is appropriately illustrated and has an adequate suggested reading list. I did not find the “structures of antimicrobial agents mentioned in the text” in Appendix I or Appendix II regarding “how clinical laboratories measure resistance” to be necessary or appropriate for the intended audience. However, this book should be required reading for all medical, veterinary, nursing, and pharmacy students as well as those interested in biosafety.