

1. Record Nr.	UNINA9910829973303321
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Titolo	Revenge of the Microbes : How Bacterial Resistance is Undermining the Antibiotic Miracle / / Abigail A. Salyers, Dixie D. Whitt
Pubbl/distr/stampa	Washington, District of Columbia : , : John Wiley & Sons, Inc., , 2014
ISBN	1-68367-200-3
Descrizione fisica	1 online resource (xii, 186 pages) : illustrations
Disciplina	616.9201061
Soggetti	Drug resistance in microorganisms
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Magic bullets, miracle drugs -- A brief look at the history of antibiotics -- Bacteria reveal their adaptability, threatening the brief reign of antibiotics -- Antibiotic-resistant bacteria in the news -- Antibiotics that inhibit bacterial cell wall construction -- Antibiotics that inhibit the synthesis of bacterial proteins -- Fluoroquinolones, sulfa drugs, and antituberculosis drugs -- Bacterial promiscuity: how bacterial sex contributes to development of resistance -- The looming crisis in antibiotic availability -- Antiseptics and disinfectants -- Antiviral, antifungal, and antiprotozoal compounds -- Appendix 1. Structures of antimicrobial agents mentioned in the text -- Appendix 2. How clinical laboratories measure resistance.
Sommario/riassunto	"What is antibiotic resistance, and why should I be concerned with it?" Media coverage and political and scientific discussions about "superbugs" that defy our current treatments, genetically-modified foods in our fields and grocery stores, the threat of bioterrorism, and the use of antibiotics in agriculture have increased citizen awareness and fears regarding the issues surrounding antibiotic resistance. <i>Revenge of the Microbes: How Bacterial Resistance Is Undermining the Antibiotic Miracle</i> is a single source of answers to this and other questions average people are asking. Written by experts with extensive experience in the field, <i>Revenge of the Microbes</i> provides the scientific information readers will need to form opinions and make informed decisions regarding the use of antibiotics. The authors have carefully sifted through a vast amount of information to ensure comprehensive

coverage of topics including the larger issues of economics, politics, health, safety, and the environment. Specific antibiotics and controversies are examined in a real-life context; accounts of positions on all sides of the public policy debate are presented; and less common issues, such as what happens to antibiotics once they are released into the environment, are addressed. The evolution of antibiotic-resistant bacteria is put into perspective, and bacterial mutation and horizontal gene transfer are explained in simple terms. An in-depth documentation of antibiotic structures is provided in the appendix. Reader-friendly and comprehensible, *Revenge of the Microbes* will engage a diverse audience, including biologists, doctors, teachers, students, lawyers, environmentalists, and everyday citizens. This new volume encourages readers to consider the extensive role of antibiotics in modern medicine and the potentially catastrophic impact the loss of effective antibiotics would have today and on future generations.
