

1. Record Nr.	UNINA9910373917303321
Titolo	Bacterial Adaptation to Co-resistance // edited by Santi M. Mandal, Debarati Paul
Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2019
ISBN	981-13-8503-3
Edizione	[1st ed. 2019.]
Descrizione fisica	1 online resource (VII, 322 p. 50 illus., 27 illus. in color.)
Disciplina	630
Soggetti	Agriculture Microbial ecology Molecular ecology Biodiversity Cytology Microbial Ecology Molecular Ecology Cell Biology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Chapter 1. Plasmids: The necessary Knowledge Wealth for Encountering Antibiotic-Resistance menace -- Chapter 2. Disinfectants amend the expression of membrane bound efflux transporters to augment antimicrobial resistance -- Chapter 3. Knowledge gaps and research needs in bacterial co-resistance in the environment -- Chapter 4. Microbial resistance to Antibiotics -- Chapter 5. Do non-medical uses of antibiotics develop cross-resistance in clinical pathogens? -- Chapter 6. Biofilms in antimicrobial activity and drug resistance -- Chapter 7. GAntimicrobial resistance in microbes: Mode of action of TolC like protein and their mechanism of regulating stress resistance and physiology -- Chapter 8. Efflux mediated co-resistance -- Chapter 9. Biofilm and Antibiotic resistance in Acinetobacter baumannii -- Chapter 10. Mechanism of bacterial co-resistance -- Chapter 11. Antibiotics and Microbial Antibiotic Resistance in Soil -- Chapter 12. Microbial adaptation and resistance to pesticides -- Chapter 13. Antimicrobial agents used in food preservation or as agricides and

effect on microbes in developing antimicrobial resistance -- Chapter 14. Molecular Mechanisms of Action and Resistance of Antimalarial drugs -- Chapter 15. Management and control of antimalarial drug resistance.

Sommario/riassunto

The proposed book aims to understand the mechanism of survival of microorganisms in response to chemical stress in various ecological niches that suffer direct human intervention, more so the agricultural, domestic and hospital settings. Microbicides (e.g. disinfectants, antiseptics, fungicides, algacides, insecticides and pesticides) are used rampantly to control undesirable microbes. Insecticides and pesticides are routinely used in agriculture which directly affect the microbial population in farms, orchards and fields. Health care environments are always stressed with disinfectants and antibiotics. It is always probable that microbicide-stressed microorganisms are in a dynamic state, displaced from one niche to the other. Some soil and water borne bacteria or their resistance determinants are also getting prominence in hospital settings after suffering selective pressure from agricides. In order to reveal the survival strategies of microbicidal-resistant microbes, it is of prime importance to know the mode of action of these complete range of microbicides (agricides to antibiotics). The present book intends to address these issues. There will be several chapters dealing with tolerance and cross resistance in microbes and bacteria in particular, dwelling in various niches. Till date, there is no consensus among scientists in theorizing molecular mechanisms to explain bacterial tolerance and their cross resistance to agricides and antibiotics. .
