

1. Record Nr.	UNINA9910799250903321
Titolo	Medicinal Plants and Antimicrobial Therapies // edited by Vinay Kumar, Varsha Shriram, Abhijit Dey
Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2024
ISBN	981-9972-61-2
Edizione	[1st ed. 2024.]
Descrizione fisica	1 online resource (VIII, 225 p. 1 illus.)
Disciplina	615
Soggetti	Pharmacology Botany Biology Biotechnology Molecular biology Medicine - Research Biology - Research Plant Science Biological Sciences Molecular Biology Biomedical Research
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	1. One Health Perspectives for Addressing Antimicrobial Resistance -- 2. Plant essential oils as potent antimicrobials -- 3. Phytochemicals as modulators of Toll-like receptors: an immuno-pharmacological perspective -- 4. Rejuvenating the potential of antimicrobials via targeted therapy of Efflux Pumps – the advent of Phyto therapeutics -- 5. Plant endophytes: Treasure house of antimicrobial compounds -- 6. Exploring medicinal plant resources for combating viral diseases, including COVID-19 -- 7. Cultivation of Corn Silk: Remunerative Venture for Medicinal Boon and Antimicrobial Therapies -- 8. Application of metabolomics for discovery of potent antimicrobial from plants -- 9. Phyto-nanotechnologies for addressing antimicrobial resistance.

This book serves as an excellent comprehensive material covering the current understandings and updates on antimicrobial resistance (AMR) and the use of medicinal plant resources for tackling it. Chapters cover important aspects of AMR and strategies to address this threatening issue with medicinal plants and their resources. One health perspectives for addressing AMR have been presented for the readers. Antimicrobial medicinal plant therapeutic resources including crude extracts, active fractions, pure molecules and essential oils, besides using them as functionalizing agents for nano-antimicrobials have been covered. Further, plant endophytes as a source of antimicrobial compounds have been discussed. Chapters cover both the bactericidal as well as resistance-reversal (or potentiating/ combinatorial therapies) potencies of medicinal plant resources. The book also focuses on how medicinal plant resources effectively target major determinants of AMR. Use of metabolomics in understanding and targeting AMR mechanisms and identifying potent phyto-therapeutics has been discussed as well. The book is a valuable read for both experienced and younger researchers working in the field of AMR and related fields in biomedicine, pharmacy, and clinical research.
