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Nota di contenuto	Chapter 1. An overview of medicinal plants: Drugs of tomorrow -- Chapter 2. Medicinal properties of plant under adverse environmental condition -- Chapter 3. Response of Secondary Metabolites of Ocimum gratissimum L. Under Copper Stress Condition -- Chapter 4. Resilience mechanism of medicinal plants under harsh environment -- Chapter 5. Nature Interpretation Sites (NIS) A New Hope of Ex-situ garden for Conservation and cultivation of Economically Important RET MAP's In Higher Himalayan Regions -- Chapter 6. Gene expression in medicinal plants in stress condition -- Chapter 7. Revealing the epigenetic mechanisms underlying the stress response in medicinal plants -- Chapter 8. Transcriptional Regulation in biosynthesis of phytochemicals in medicinal plants under stress conditions -- Chapter 9. Role of miRNA in medicinal plants under stress condition -- Chapter 10. Secondary metabolites biosynthesis and related gene expression under Ultraviolet-B radiation -- Chapter 11. Signaling molecules in medicinal

plants response to cold stress -- Chapter 12. Aquaporins gene expression in plants under stress condition -- Chapter 13. Genomic instability in medicinal plants in response to heavy metal stress -- Chapter 14. Proteomics response of medicinal plants to salt stress -- Chapter 15. Regulation of PGPR-related genes in medicinal plants in adverse condition -- Chapter 16. Role of phytomelatonin in plant tolerance under environmental stress -- Chapter 17. Omics' approaches to analysis of stress responses genes in medicinal plants -- Chapter 18. Next generation sequencing (NGS) for metabolomics study in medicinal plants under stress condition -- Chapter 19. Targeted improvement of medicinal plants under stress condition through CRISPR/Cas mediated genome engineering -- Chapter 20. Molecular farming of medicinal plants in the face of environmental challenges.

Sommario/riassunto

This contributed volume brings out a comprehensive collection of changes from cellular to molecular levels in medicinal plants under extreme environments. The focus of this book is to address the molecular changes in medicinal plants under different abiotic stresses. Medicinal plants are regarded as rich resources of components that can be used for drug development in the pharmaceutical industry. A few medicinal plants are considered vital sources of nutrients and solicited for their therapeutic properties. Therefore, it is essential to understand medicinal plants' interaction under abiotic stresses as compounds obtained from these plants play an important role in human health. This book is of interest to students, teachers, researchers, scientists, medicinal plant experts, and policymakers. Also, the book provides study material for undergraduate and graduate students of botany, environmental sciences, medicinal and aromatic plants, biochemistry, and biotechnology. National and international scientists working in the area of medicinal plants, drug development, and policymakers will also find this a useful read.