Exploring Medicinal Plants

Phenolic Compounds from Medicinal Plants

Pharmaceutical and Health Benefits

Edited by **Rakesh Kumar Bachheti, Archana Bachheti and Azamal Husen**

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Phenolic Compounds from Medicinal Plants

Medicinal plants have been trusted for centuries as natural sources of healing. Among their many bioactive constituents, phenolic compounds stand out for their remarkable diversity and wide-ranging health benefits. *Phenolic Compounds from Medicinal Plants: Pharmaceutical and Health Benefits* illustrates the science of these compounds, showing how they connect traditional plant wisdom with modern pharmaceutical research.

The chapters explain the chemistry and structures of phenolic compounds, how they are extracted and studied, and their proven effects on human health. Topics include their antioxidant, anti-inflammatory, antimicrobial, anticancer, neuroprotective, antidiabetic, and anti-obesity activities. It also looks at their contributions to skin health, digestion, and respiratory well-being. Importantly, the book highlights challenges such as bioavailability and explores strategies to make these compounds more effective in real-world applications.

A volume in the *Exploring Medicinal Plants* series, this book is designed for researchers, healthcare professionals, and students seeking to understand the growing role of phenolic compounds in medicine, nutrition, and human wellness.

Exploring Medicinal Plants

Series Editor: Azamal Husen, Wolaita Sodo University, Ethiopia

Medicinal plants render a rich source of bioactive compounds used in drug formulation and development; they play a key role in traditional or indigenous health systems. As the demand for herbal medicines increases worldwide, supply is declining as most of the harvest is derived from naturally growing vegetation. Considering global interests and covering several important aspects associated with medicinal plants, the Exploring Medicinal Plants series comprises volumes valuable to academia, practitioners, and researchers interested in medicinal plants. Topics provide information on a range of subjects including diversity, conservation, propagation, cultivation, physiology, molecular biology, growth response under extreme environment, handling, storage, bioactive compounds, secondary metabolites, extraction, therapeutics, mode of action, and healthcare practices.

Led by Azamal Husen, PhD, this series is directed to a broad range of researchers and professionals consisting of topical books exploring information related to medicinal plants. It includes edited volumes, references, and textbooks available for individual print and electronic purchases.

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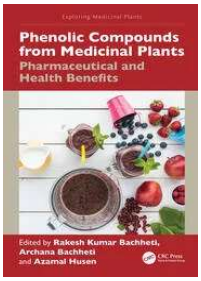

Chapter

Antimicrobial Activities of Phenolic Compounds Derived from Medicinal Plants

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ABSTRACT

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