Special Issue

Plant Natural Products for Human Health and Disease

Message from the Guest Editor

Natural products of plant origin have long been recognized for their therapeutic potential, serving as a rich source of bioactive compounds with diverse therapeutic effects and molecular mechanisms. Historically, many modern drugs are derived from phytochemicals such as alkaloids, flavonoids, terpenoids, and polyphenols, which interact at the cellular and molecular levels to modulate physiological pathways.

This Special Issue aims to highlight recent advances in the elucidation of the molecular mechanisms and bioactivity of plant-derived compounds. It will cover research aimed at the isolation, structural characterization, and bioassays of natural products, as well as their mechanisms of action at the molecular level, including gene expression modulation, enzyme inhibition, antioxidant activity, and immune system regulation. In addition, it will cover emerging approaches such as molecular docking and omics technologies to optimize the therapeutic efficacy of plant natural products. By integrating interdisciplinary research, this collection seeks to accelerate the translation of phytochemicals into novel, effective, and safe interventions for human health and disease management.

Guest Editor

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Message from the Editor-in-Chief

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