

Editorial

Editorial on Special Issue “Natural Products for Drug Discovery and Development”

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Natural products have always played a vital role in the search for novel drugs, and their exploration continues to captivate researchers in the field of drug discovery and development. These chemical compounds, produced by living organisms ranging from plants and animals to insects and microbes, offer a wealth of diverse molecules with proven biological activities. Among them are compounds with remarkable therapeutic potentials, spanning areas such as cancer, infectious diseases, cardiovascular diseases, and metabolic disorders.

In recognition of the immense potential of natural products in drug discovery, we present a Special Issue in *Processes* titled “Natural Products for Drug Discovery and Development”. This collection of articles delves into the fascinating realm of natural products and showcases the latest advancements in this field. With nine original research articles and two review articles, this Special Issue offers a comprehensive overview of the current research and trends in the use of natural products for drug development.

This collection of studies encompasses two review papers that delve into distinct research areas. The first review paper examines the potential therapeutic application of herbal medicines, specifically Traditional Chinese Medicine (TCM), in the context of idiopathic pulmonary fibrosis (IPF), a progressive pulmonary disorder characterized by fibrotic lung tissue [1]. The review highlights the anti-inflammatory and anti-fibrotic properties of herbal medicines, shedding light on their potential as a promising therapeutic target for IPF. The second review paper focuses on the recent pharmacotechnological advancements in essential oils for managing pain and agitation in severe dementia [2]. It specifically explores the engineering of essential oils using solid lipid nanoparticle delivery systems and highlights the essential oil of bergamot (BEO) as a subject of clinical trials for pain and dementia management. The ongoing clinical trial aims to evaluate the efficacy and safety of bergamot intervention, which may yield valuable insights into the therapeutic potential of other essential oils.

In addition to the two reviews, the articles in this Special Issue cover an extensive range of topics, providing insights into various aspects of natural product research [3–11]. These investigations explore therapeutic potentials inherent in natural compounds, unravel intricate mechanisms underlying diseases, and illuminate pivotal facets of biomedical science. With an emphasis on oxidative stress, cardiovascular health, respiratory health, pancreatitis, antibacterial activity, and neuroprotection, these articles offer significant contributions to their respective scientific disciplines. Collectively, they serve as exemplary instances of interdisciplinary scientific research and exhibit the indispensability of continued inquiry in augmenting human well-being.

In conclusion, the Special Issue “Natural Products for Drug Discovery and Development” offers an exciting and comprehensive glimpse into the world of natural products.



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Through the exploration of diverse chemical compounds, the evaluation of their biological activities, and the elucidation of molecular mechanisms, this collection contributes to the ongoing efforts to harness the therapeutic potential of nature's pharmacy. We hope that the articles presented here inspire further research and collaboration, ultimately leading to the discovery of innovative drugs that improve human health and well-being.

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