Scientifica

Special Issue on
Natural Therapeutics for Disease: Advanced Healthcare and Challenges

CALL FOR PAPERS

World Health Organization has identified cancer as one of the leading causes of death across the globe, with more than 10 million fatalities associated with cancers of the breast, lung, colon, prostate, skin, and stomach. Numerous strategies like radiotherapy and chemotherapy have been explored. Natural biomolecules from microorganisms and plants have shown the potential to inhibit the growth and progression of cancer. These biomolecules include flavonoids, curcumin, and ecteinascidin, actinomycin D, mitomycin C, and Salinosporamide A from plants, microbial and marine sources. However, market trends are still not going with natural compounds and have a slow rate of adaptation and commercialization. On the other hand, natural compounds are safer alternatives with the least or rare chances for side effects. There are still a lot of molecules that are still unknown.

The major issue with the commercialization of biomolecules is the cost associated with discovery and production followed by formulation. In addition, the accurate identification of plants for large-scale harvesting is also a hurdle for natural components-based drugs.

It is necessary to explore the possibilities of advanced herbal drug formulation. The characterisation of phytochemicals followed by in silico, in vivo, and in vitro assessment of compounds in different models. Besides, machine learning and artificial intelligence have speeded up drug discovery up to some extent by predicting the biomolecule's efficiency and toxicity of molecules accurately. The current Special Issue will invite high-quality original research and review articles with such advancements, trials on cell lines, and animal and human models related to natural products from any origin, or habitat, as crude, purified, and nano-formulations.

Potential topics include but are not limited to the following:

- Phytochemicals with antioxidants, anti-inflammatory, and anticancer activities
- Green extraction of phytochemicals and characterisation
- Microbial metabolites and elucidation of inhibitory pathways
- Large scale production of bioactive biomolecules from microorganisms
- Structure of new/unexplored biomolecules with bioactivities
- Advanced chromatographic techniques for biomolecule separation and identification
- Molecular networking
- Mechanisms of action for new biomolecules
- ADMET analysis of biomolecules
- Composite nanomaterials with organic molecules
- Molecular docking and in silico studies
- Molecular dynamics of molecular interaction
- Artificial intelligence and machine learning for drug design from biomolecules

Authors can submit their manuscripts through the Manuscript Tracking System at https://review.wiley.com/submit?specialIssue=623484.

Papers are published upon acceptance, regardless of the Special Issue publication date.

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