Special Issue

Exploring Symmetry and Asymmetry in Molecular Design for Anticancer and Antioxidant Therapies

Message from the Guest Editor

Molecular symmetry and asymmetry play crucial roles in the development of bioactive compounds, particularly in anticancer and antioxidant agents. Symmetric molecules often display predictable properties, facilitating their design and synthesis, making them effective candidates for targeted therapies. These compounds can uniformly interact with biological targets, allowing for efficient drug delivery and pharmacological action. On the other hand, asymmetric molecules, with their structural complexity, offer versatility in binding interactions to biological targets. Their irregular structure often allows higher adaptability to a broader range of targets, which can be advantageous for overcoming drug resistance and improving therapeutic outcomes. Both symmetric and asymmetric designs are being explored in combination therapies to increase the synergy of anticancer and antioxidant effects, contributing to the development of more effective and targeted treatments. This exploration opens new frontiers in molecular design for next-generation cancer and antioxidant agents, with improved pharmacokinetics, bioavailability, and potency.

Guest Editor

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Message from the Editor-in-Chief

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