

Special Issue

Opportunities and Challenges of Organic Synthesis in Drug Discovery

Message from the Guest Editors

Organic synthesis plays a major role in the process of drug discovery, starting from the identification and optimization of the lead molecule until it becomes a drug. Most of the clinically available drug molecules generally contain unprotected polar groups, thereby imposing a major challenge in the process of synthesis and purification of those compounds. Growing advancement in in silico drug design processes are also focused on devising effective algorithms to predict and plan robust and reproducible reaction mechanisms. Thus, advancement in organic synthesis methodologies will have a profound impact not only in the process of drug discovery in the pursuit of development of various therapeutic agents, but also in the improvement of human health.

This Special Issue focuses on recent advances in the design of innovative strategies for organic synthesis in the pursuit of the development of therapeutically potential agents targeting specific enzymes, receptors or macromolecules of the body for the treatment of various diseases. We welcome researchers to contribute original research papers, short communications, and review articles from the different fields of drug discovery.

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As the premier open access journal dedicated to experimental organic chemistry, and now in its 25th year of publication, the papers published in *Molecules* span from classical synthetic methodology to natural product isolation and characterization, as well as physicochemical studies and the applications of these molecules as pharmaceuticals, catalysts and novel materials. Pushing the boundaries of the discipline, we invite papers on multidisciplinary topics bridging biochemistry, biophysics and materials science, as well as timely reviews and topical issues on cutting edge fields in all these areas.

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