Special Issue

Recent Advances in the Modulation of Cholinergic Signaling

Message from the Guest Editor

Since acetylcholine-related functions are impaired in several disorders and pathological conditions, different pharmacological approaches have been explored in view of innovative therapeutic applications. Additional mechanisms of action and/or downstream responses have been more recently associated to receptor targets of the cholinergic system, i.e., nicotinic and muscarinic acetylcholine receptors (nAChRs and mAChRs), notably allosteric modulation (for both receptor families), biased signaling (for mAChRs) or silent agonism (for nAChRs). On the other hand, molecular fragments of cholinesterase (AChE and BChE) inhibitors are quite frequently incorporated in the structure of various hybrid ligands characterized by a dual or multitarget pharmacological profile, an approach aimed at improving their action on CNS disorders.

Contributions to this Special Issue, in the form of original research articles and short communications, may cover multidisciplinary aspects of the design, synthesis, and biological evaluation of novel small molecules affecting cholinergic neurotransmission as well as their therapeutic potential.

Guest Editor

Prof. Dr. Clelia Dallanoce

Department of Pharmaceutical Sciences, University of Milan, Via Luigi Mangiagalli 25, 20133 Milan, Italy

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Molecules
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
molecules@mdpi.com

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Message from the Editor-in-Chief

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.

Editor-in-Chief

Prof. Dr. Thomas J. Schmidt
Institute of Pharmaceutical Biology and Phytochemistry, University of Münster, Corrensstrasse 48, D-48149 Münster, Germany

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