

Special Issue

Polysulfide Pharmacology: Biological Effects and Therapeutic Potential in Pain, Inflammation, and CNS Disorders

Message from the Guest Editor

Polysulfides are endogenous products of sulfide and nitric oxide metabolism. They are involved in many physiological processes, e.g., nociception, inflammation, anxiety, depression, antioxidant capacity, mitochondrial function, vascular tone, oxygen sensing, malignancies. They readily interact with cysteine residues of various proteins in a reaction called persulfidation. This enables them to exert diverse effects, but also makes them promiscuous and less target-selective. It is an ambitious endeavor to harness the therapeutic potential of polysulfides. Target proteins include metabolic enzymes, ion channels, signaling proteins, zinc finger proteins. Exogenous organic and inorganic polysulfides are widely studied as potential therapeutics for disorders related to the abovementioned biological functions. Inorganic sodium polysulfide is short-lived and exhibits unfavorable pharmacokinetics. Organic polysulfide derivatives are more promising in this regard. The present Special Issue attempts to provide an overview of the current state of polysulfide biology and therapeutic utilization with special emphasis on pain, inflammation and central nervous system pathologies.

Guest Editor

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We hope to handle your contribution to *Pharmaceuticals* soon.

Editor-in-Chief

Prof. Dr. Amélia Pilar Rauter

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