



## Protease and Carbonic Anhydrase Inhibitors and Their Roles in Pathological Processes

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### Message from the Guest Editor

Proteases and carbonic anhydrases are among the most widespread enzymes in organisms all over the phylogenetic tree, in which they play crucial physiological roles. Protease inhibitors targeting all classes of such known enzymes are widely used as antivirals (against HIV and hepatitis C infections), antithrombotics (targeting serine proteases involved in the blood coagulation cascade), whereas inhibitors of other proteases, such as matrix metalloproteinases, have found fewer applications due to their toxicity problems. Carbonic anhydrase inhibitors, on the other hand, are used as antiglaucoma, antiepileptic, antiobesity, and as diuretic drugs, whereas newer applications target metastatic tumors, both for treatment and imaging, with one small molecule and one antibody in advanced clinical trials. Anti-infectives, based on inhibition of carbonic anhydrases from pathogenic bacteria, fungi, and protozoa, have also begun to be investigated. The present Special Issue welcomes contributions dealing with all aspects connected to the chemistry, biochemistry, pharmacology and toxicology of this important class of enzyme inhibitors.





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