



Carbonic Anhydrase and Biomarker Research 2021

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Deadline for manuscript submissions:

closed (31 May 2022)

Message from the Guest Editor

Carbonic anhydrase is a widely distributed metalloenzyme catalysing the reversible hydration of CO_2 to HCO_3^- and H^+ . It plays a fundamental role in a number of physiological processes, including gas exchange, pH homeostasis, electrolyte transport, metabolic reactions, bone resorption, and calcification. Recently, its involvement in several pathological conditions, as well as sensitivity to chemical pollutants, has advanced the research on carbonic anhydrase in the biomarker discovery field. In recent years, alteration in the expression of specific carbonic anhydrase isoforms has been proposed as diagnostic or prognostic biomarkers in the clinical field, mainly in cancer research. Moreover, the sensitivity of specific carbonic anhydrase isoforms to environmental pollutants has given rise to new perspectives in the potential use of carbonic anhydrase as a pollution biomarker.

This Special Issue of *IJMS* is aimed to cover the more recent insights into the research of carbonic anhydrase as a promising biomarker in several areas of interest, from human health to environmental sciences.





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Message from the Editor-in-Chief

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