



## Mitochondrial Functions in Cancer

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### **Message from the Guest Editors**

Mitochondria are bioenergetic organelles that are believed to originate from a symbiotic relationship established between archebacteria and the ancestors of eukaryotic cells. They comprise an outer and an inner membrane that delineate an intermembrane space, and an inner matrix hosting a short, circular DNA and several enzymes orchestrating, e.g., the tricarboxylic acid (TCA) cycle.

In tumors, cancer cells (and host cells) strive to simultaneously ensure optimal energy production and biosynthesis with local resources that are often limited. The balance between these activities depends on mitochondrial functions that can oscillate between ATP production and biosynthesis. Mitochondria also participate in cancer cell immortalization and may act as metabolic sensors of the tumor microenvironment. Upon treatment, they can be damaged and repaired, thus participating in resistance to therapy. This Topic issue in *Cancers* aims to address these functions, with a key interest for the relationship between mitochondria and specific phenotypic changes occurring during tumor growth and treatment.





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## Message from the Editor-in-Chief

*Cancers* (ISSN 2072-6694) is an international, online journal addressing both clinical and basic science issues related to cancer research. The journal will continue its open access format, which will certainly evolve to ensure that the journal takes full advantage of the rapidly changing world of information and knowledge dissemination. It publishes high-quality clinical, translational, and basic science research on cancer prevention, initiation, progression, and treatment, as well as other related topics, particularly to capture the most seminal studies in the rapidly growing area of immunology, immunotherapy, and tumor microenvironment.

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