

Special Issue

Molecular Insights and Treatments for Gynecological Cancers

Message from the Guest Editor

Gynecological cancers, including ovarian, cervical, and endometrial cancers, present significant challenges in both diagnosis and treatment. Biochemistry and molecular biology play pivotal roles in understanding the molecular mechanisms underlying these cancers.

Advances in genomic profiling, proteomics, and metabolomics have revealed key biomarkers for early detection, prognosis, and therapeutic targets. Specific mutations, such as those in BRCA1/2 genes, have enhanced personalized treatment strategies, particularly in ovarian cancer. Additionally, molecular signaling pathways, such as those involving PI3K/AKT and MAPK, are critical in cancer progression and resistance to therapies. Understanding the tumor microenvironment, including immune evasion mechanisms, may also open up promising avenues for immunotherapy. This Special Issue explores the intersection of biochemistry and molecular biology in gynecological cancers, emphasizing the development of novel diagnostic tools, therapeutic approaches, and the exploration of molecular markers. These advancements offer hope for improved patient outcomes through targeted precision medicine strategies.

Guest Editor

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