



## Drug Resistance in Cancer: Molecular Mechanisms and Tackling Strategies, 2nd Edition

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### Message from the Guest Editor

Cancer is a highly complex, adaptive system that has the ability to rapidly evolve new phenotypic and genotypic profiles to circumvent therapy. Drug resistance threatens the longevity of drugs and restricts treatment options for patients, with high prevalence in all areas of oncology and infectious disease. With the knowledge that each cubic centimetre of tumour contains up to one billion cancer cells, novel insights into both primary and acquired resistance mechanisms, including drug detoxification, alterations in drug targets, genomic/epigenetic instability, increased ability to repair DNA damage, reduced susceptibility to apoptosis, as well as the influence of the tumour microenvironment and clonal cooperation, are required to substantially alter therapeutic treatment practices and increase overall survival. Some of these resistance pathways lead to multidrug resistance, generating an increasingly challenging clinical problem to overcome. This Special Issue of IJMS will highlight the recent advances in the field of drug resistance, particularly novel mechanisms and targeted strategies to tackle this global modern medicine concern.





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## Message from the Editor-in-Chief

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