Special Issue

Molecular Mechanisms of Cancer Drug Resistance

Message from the Guest Editors

Drug resistance, existing before treatment (intrinsic) or generated after therapy (acquired), is responsible for most cancer relapses and associated deaths. Drug resistance arises not only with classical chemotherapy but also, more recently, with tumor-target and immunotarget therapies. The heterogeneity among patients, tumors, and cancer microenvironments and the adaptability of cancer cells in evading therapies make it more challenging to address drug resistance. Although our knowledge in understanding drug resistance over the past decade has definitively grown, gaps remain in identifying the biological, pharmacodynamic, and pharmacokinetic causes behind drug resistance and designing cancer therapies and schedules to overcome it. This Special Issue aims to respond to this clinical need, with studies leading to the discovery of significant biomarkers for the development of a new combination of anticancer treatments that prevent or overcome potential resistance. Furthermore, emphasizing the pharmacological action of anticancer drugs may help to challenge complexity by better predicting optimal strategies.

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Biomedicines (ISSN 2227-9059) is an open access iournal devoted to all aspects of research on human health and disease, the discovery and characterization of new therapeutic targets, therapeutic strategies, and research of naturally driven biomedicines, pharmaceuticals, and biopharmaceutical products. Topics include pathogenesis mechanisms of diseases, translational medical research, biomaterial in biomedical research, natural bioactive molecules, biologics, vaccines, gene therapies, cell-based therapies, targeted specific antibodies, recombinant therapeutic proteins, nanobiotechnology driven products, targeted therapy, bioimaging, biosensors, biomarkers, and biosimilars. The journal is open for publication of studies conducted at the basic science and preclinical research levels. We invite you to consider submitting your work to Biomedicines, be it original research, review articles, or developing Special Issues of current key topics.

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