

Special Issue

Mechanisms of Drug Resistance in Cancer Cells

Message from the Guest Editors

Drug resistance is a significant challenge in anti-cancer treatments, driven by genetic, epigenetic, proteomic, metabolic, and microenvironmental factors. These mechanisms allow certain cancer cells to survive and proliferate under hostile conditions, reducing the effectiveness of current therapies. Existing strategies, including new drug discovery, combination therapy, and precision immunotherapy, remain insufficient in overcoming drug resistance. Understanding these mechanisms is crucial for developing advanced therapeutic options and more potent, target-based drugs. This Special Issue aims to explore and understand the molecular mechanisms of drug resistance in cancer cells and to highlight emerging therapeutic options with the potential to better address this problem. We welcome original research articles and reviews in areas such as factors contributing to drug resistance, novel approaches to overcoming resistance, the role of immunity and immune targets, mechanisms of apoptosis evasion, and the impact of microRNAs and lncRNAs on drug resistance.

Guest Editors

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Deadline for manuscript submissions

31 October 2025



Biology

an Open Access Journal
by MDPI

Impact Factor 3.5
CiteScore 7.4
Indexed in PubMed



mdpi.com/si/213956

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A major strength of biological science is the diversity of approaches that biological scientists apply to their research problems. *Biology* reflects this diversity and brings together studies employing the varied experimental and theoretical approaches that are fueling biological discovery. *Biology*, the journal, is a fully peer-reviewed publication with a rapid and economical route to open access publication and is listed on PubMed. All articles are peer-reviewed and the editorial focus is on determining that the work is scientifically sound rather than trying to predict its future impact.

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