

Special Issue

Molecular Biology of Lung Cancer: From Intrinsic to Acquired Resistance Mechanisms

Message from the Guest Editor

Dear colleagues, Overall, lung cancer remains one of the major causes of cancer-related deaths worldwide. Despite the big efforts in ameliorating therapeutic strategies, both intrinsic and acquired resistance represent a concrete obstacle to the effectiveness of long-term treatment, resulting in ineffective therapeutic action and poor prognosis of lung cancer patients. Resistance mechanisms currently include genetic mutations and/or epigenetic changes, unregulated overexpression of drug efflux pumps, reduced oxygen availability, genomic instability and other pathological molecular events. In this context, the deregulation of epigenetic mechanisms, as well as DNA methylation, histone modification, and non-coding RNA regulation, could contribute to tumor resistance. To this purpose, a comprehensive overview of the current knowledge about several mechanisms responsible for targeting genetic and/or epigenetic factors linked to therapeutic resistance could be an effective strategy to reverse or overcome acquired drug resistance in patients with solid cancer, particularly in lung cancer patients.

Guest Editor

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