Special Issue

Pancreatic Ductal Adenocarcinoma: Unveiling Pathogenic Mechanisms and Pioneering Novel Therapeutic Strategies

Message from the Guest Editor

Over the last five years, the incidence of pancreatic ductal adenocarcinoma has continued to rise globally. With no approved targeted therapy for the dominant KRAS driver and immune-checkpoint blockade largely ineffective, chemotherapy remains the standard of care for most patients. Yet marked intratumoral heterogeneity, lineage plasticity, and metabolic rewiring, including autophagy and nutrient scavenging, limit durable benefit. Recent advances, including single-cell and spatial multi-omics and patient-derived organoid and co-culture models, are deepening our understanding of the mechanisms that sustain PDAC fitness and exposing vulnerabilities. Our Special Issue welcomes mechanistic and translational studies that bridge biology to therapy: original work uncovering metabolic and epigenetic adaptations, drug-tolerant persister states, dissection of tumor-stroma-immune interactions and the development of biomarkers for early detection and treatment response. Reviews synthesizing recent progress and outlining priorities for clinical translation are also encouraged.

Guest Editor

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Editor-in-Chief

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