

Special Issue

Glioblastoma Horizons: Exploring Mechanisms and Advancing Therapeutic Strategies

Message from the Guest Editors

Glioblastoma (GBM), an aggressive adult brain tumor, is notorious for high recurrence and mortality, with median survival ~12-15 months despite surgery, radiation, and chemotherapy. However, efforts to find cures continue, driven by advances. Key progress includes immunotherapies like ultrasound-delivered CAR-T (breaching blood–brain barrier, rapid tumor regression in trials) and personalized vaccines (inducing immune memory in preclinical models). Mechanistic studies on GBM development—elucidating blood-tumor barrier regulation, IDH-wildtype features, immune evasion—are significant. These insights improve treatment efficacy, promote apoptosis, delay recurrence, enabling precision medicine. This Special Issue examines cell culture models, in vivo models (genetically engineered mice, patient-derived xenografts), and drug screening methods in glioma research. It explores tumor microenvironment, genetic/epigenetic/cellular factors driving glioma heterogeneity, and implications for progression/resistance. It highlights cell models for glioma stem cell differentiation, targeted screening, and mechanisms of development, progression, and therapeutic responses.

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About the Journal

Message from the Editorial Board

Cells has become a solid international scientific journal that is now indexed on SCIE and in other databases. We have successfully introduced a special issues format so that these issues serve as mini-forums in specific areas of cell science. *Cells* encourages researchers to suggest new special issues, serve as special issues editors, and volunteer to be reviewers. Our main focus will remain on cell anatomy and physiology, the structure and function of organelles, cell adhesion and motility, and the regulation of intracellular signaling, growth, differentiation, and aging. We are open to both original research papers and reviews.

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