Review Annu Rev Pathol. 2023 Oct 13. doi: 10.1146/annurev-pathmechdis-051122-110348.
Online ahead of print.

Role of the Microenvironment in Glioma Pathogenesis

Maya Anjali Jayaram [1], Joanna J Phillips [1 2]

Affiliations

PMID: 37832944 DOI: 10.1146/annurev-pathmechdis-051122-110348

Abstract

Gliomas are a diverse group of primary central nervous system tumors that affect both children and adults. Recent studies have revealed a dynamic cross talk that occurs between glioma cells and components of their microenvironment, including neurons, astrocytes, immune cells, and the extracellular matrix. This cross talk regulates fundamental aspects of glioma development and growth. In this review, we discuss recent discoveries about the impact of these interactions on gliomas and highlight how tumor cells actively remodel their microenvironment to promote disease. These studies provide a better understanding of the interactions in the microenvironment that are important in gliomas, offer insight into the cross talk that occurs, and identify potential therapeutic vulnerabilities that can be utilized to improve clinical outcomes. Expected final online publication date for the *Annual Review of Pathology: Mechanisms of Disease*, Volume 19 is January 2024. Please see http://www.annualreviews.org/page/journal/pubdates for revised estimates.