BioMed Research International

Special Issue on

Microglia-Glioma/Glioma Stem cell Interactions: The Role of the Microenvironment

CALL FOR PAPERS

Glioblastoma multiform (GBM) is the most malignant and aggressive among primary brain tumors, characterized by very low life expectancy. Neurosurgery, generally associated with radiotherapy and chemotherapy, represents the standard therapeutic approach, yet it is largely ineffective because of the frequent tumor recurrences characterized by severe invasiveness. High grade gliomas are heavily infiltrated with cells of myeloid origin, mainly microglia and macrophages. These glioma associated microglia/macrophages (GAM) can comprise up to 30% of total tumor mass and have been suggested to play several roles in GBM progression including proliferation, survival, motility, and immunosuppression. Although tumor microglia and macrophages can acquire proinflammatory (M1) phenotype, being capable of releasing proinflammatory cytokines, phagocytosis, and present antigens, their effector immune function in gliomas appears to be suppressed by the acquisition of an anti-inflammatory (M2) phenotype.

We invite authors to submit original research articles as well as review articles on glioma stem cell characterization and microglia-glioma/glioma stem cell interactions to highlight the close relationship between the two cell types and the factors that can influence their properties (chemokines, cytokines, and other factors). We are particularly interested in articles describing any kind of relationship between microglia and glioma cells in the tumor microenvironment to explore future therapeutic approaches simultaneously targeting glioma cells and microglia.

Potential topics include, but are not limited to:

- Glioma stem cell (GSC) functional characterization
- Microglia-glioma/glioma stem cell interactions
- Role of GAM and myeloid derived suppressor cells (MDSCs)
- Role of ion channel expression in the malignancy of glioblastoma
- M1-M2 transition in GAM
- Glioma microenvironment
- The perivascular niche in glioma
- S100 proteins in glioma

Authors can submit their manuscripts via the Manuscript Tracking System at http://mts.hindawi.com/submit/journals/bmri/cell.biology/mggs/.

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Friday, 18 March 2016

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