Researchers at the University of South Florida have discovered a method for the treatment of glioma by identifying a novel target for the treatment of the tumor growth.

Gliomas are tumors that arise from glial cells, such as astrocytes, oligodendrocytes, and ependymal cells. Gliomas account for about 32% of brain tumors, and 80% of malignant brain tumors. High grade (i.e. malignant) gliomas are highly lethal. Median patient survival is less than one year despite a combination of rigorous therapies including surgery, radiation, chemotherapy, and anti-tumor medications.

While therapies such as post-operative radiation may delay tumor regrowth and prolong survival, complete tumor control has rarely been achieved. This is due, at least in part, to the abundance of hypoxic or tumor stem cells, the rapidity of glioma proliferation, their low radiosensitivity, and the rapid emergence of resistant cells. Accordingly, there is a critical need for developing improved therapy for glioma.

Our inventors have discovered a novel PKC-iota inhibitor for treatment of glioma. This therapy will treat multiple glioma types including astrocytic tumors such as anaplastic astrocytoma, glioblastoma, and glioblastoma multiform; oligodendroglial tumors; gliomas containing different types of glial cells, such as oligoastrocytoma and oligodendroglioma.

**ADVANTAGES:**
- Effective anti-tumor therapy
- Inhibits multiple targets
- High specificity

**Graph Indicating ICA-1 Effectively Prevent the Growth of U87-MG Gioma Xenograft**

**Tech ID # 11B123**
**Patent #: 8,716,266**