Xiang Zhang, J Mol Biomark Diagn 2011, 2:4
doi: http://dx.doi.org/10.4172/2155-9929.S1.6

OMICS Group Conferences
Accelerating Scientific Discovery

2nd World Congress on
Biomarkers & Clinical Research

12-14 September 2011 Baltimore, USA

Molecular characterization and current treatment strategy of glioblastoma multiforme

Xiang Zhang, Wei Zhang, Weidong Cao, Gang Cheng, Yongqiang Zhang, Bo-lin Liu and Jin-xiang Cheng

Department of Neurosurgery, Xijing Hospital, China

Fourth Military Medical University, China

Glioblastoma multiforme (GBM) is the most frequent and aggressive primary brain tumor in human and is classified by the WHO in the group of diffusely infiltrative astrocytomas, representing the most malignant subtype of them. The aberrant genetic events and signaling pathways have been clearly demonstrated. They are cellular, highly anaplastic, and morphologically highly heterogeneous tumors. Understanding the genetic alterations, specific molecular biomarkers and proliferative pathways might promote therapeutic development for the management of GBM. In this article, we review the molecular characterization of GBM cells and current treatment strategy, including gross or near-total resection of the tumor, followed by radiotherapy and concurrent chemotherapy, stereotactic brachytherapy and new targeted therapies. The multimodal approaches for the treatment of GBM improve the prognosis.