

SPACE LIFE SCIENCES SYMPOSIUM (A1)
Radiation Fields, Effects and Risks in Human Space Missions (4)

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THE PROTECTIVE ROLE OF NF- κ B IN DIFFERENT GLIOMA CELLS UNDER RADIATION
STRESS CONDITIONS**Abstract**

Glioma, the most pervasive type of primary brain tumors, it represents one of the most antagonistic and fatal human cancer types. The scenario of glioma has remained poorly understood. In the pathogenesis of multiple myeloma, NF- κ B activation is closely linked to the cellular interactions but our focus is on the relationship between apoptosis and expression level of NF- κ B quantified in three different glioma cells (U251, U87, SF767) under the radiation stress. And we construct NF- κ B promoter system to evaluate the activity of NF- κ B by different methods including real-time PCR, western blotting and genomic analysis. Previous report showed that the NF- κ B family plays a central role in regulating apoptosis and the genes expression essential for the generation of both innate and adaptive immune responses, and NF- κ B promotes the proliferation, differentiation, and survival of lymphocytes. Our results indicates NF- κ B is regarded as transcription factor in the process of expression of apoptosis inhibition genes, and the expression level of NF- κ B in different glioma cells is different. At the same time, we observed the level of NF- κ B located in the nuclear can be increased following irradiation; the stronger the activity of human glioma cell radioresistance, the higher the NF- κ B level in the nuclear. These data indicated that the NF- κ B played important role in regulating the process of gliomas radioresistance, and therefore might represent a novel therapeutic target for human glioma.