Researchers identify potential therapeutic target for deadly brain cancer

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Researchers from the Geisel School of Medicine at Dartmouth will present a scientific poster on Tuesday, April 8, 2014 at the American Association of Cancer Researchers conference in San Diego, CA. The research identifies a potential characteristic for predicting outcome in a deadly form of brain cancer known as glioblastoma multiforme.

Existing therapies based on genetic information have failed to effectively treat glioblastomas. Therefore, researchers are aggressively looking to find new molecular targets for this aggressive brain tumor.

Dartmouth researchers previously demonstrated that STK17A is a protein that is induced when DNA is damaged by the chemotherapeutic drug cisplatin. Biopsied samples of glioblastoma tumors contain high level of STK17A. And the more STK17A a tumor has the poorer the outcome appears to be. Increased levels of STK17A are correlated with shorter survival time for glioblastoma patients.

In addition, when researchers tried to "turn off" the STK17A protein, they observed a reduced rate of cancer cell growth. Reducing STK17A also interfered with tumor cells' ability to move around and invade other areas of the brain.

Further investigation is required to understand the precise role of STK17A in glioblastoma, but the finding may reveal a potential Achilles' Heel for this deadly type of brain tumor that often times seems unstoppable.

More information: Poster #4605, "STK17A, Implications in Glioblastoma Multiforme," will be in Hall A-E Section 34 from 1:00-5:00 pm PT on April 8, 2014 at AACR Conference.

Provided by The Geisel School of Medicine at Dartmouth