Mutiny: Here's how glioblastoma uses the brain against itself to spread cancer and resist treatment

New research this week suggests that an aggressive brain cancer can hijack the brain's own circuitry to further spread and render itself unstoppable. Researchers in Germany studied glioblastoma cells in mice and in the lab, finding that these tumors use some of the same mechanisms behind normal neuron development and migration to systematically invade the brain. The research may one day allow scientists to develop better treatments for the almost always fatal condition.

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Treatment is rarely successful, and the cancer frequently recurs, with the <u>average length of survival</u> being less than a year.

One major reason for its invulnerability is that the cancer can seed itself widely throughout the brain, making precise eradication with surgery or other methods much more difficult. GBM tumors also appear to contain a diverse variety of cells, further complicating any treatment. But the exact role and function of these different populations of GBM cells has remained mysterious, according to study author Varun Venkataramani, a brain tumor researcher at Heidelberg University in Germany.

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"We believe that these findings will need to be best tested in clinical trials and we will need to further develop clinical imaging so that we can monitor the invasive nature of these brain tumors more specifically," said Venkataramani.

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