Pairing virus with "iron-mimic" peptide allows brain cancer therapy to cross blood-brain barrier in mice.

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The blood-brain barrier (BBB) is a tight seal that prevents most things from crossing over from blood vessels into the fluid surrounding our brains and spine. Although this unusually restrictive system works to prevent bacteria, and other large and/or hydrophilic molecules, from diffusing into the brain, the BBB can make it more difficult to deliver drugs to the sites of brain tumors. Researchers at the University of Texas MD Anderson Cancer Center have discovered a way to trick the body into allowing specific drugs to cross the BBB. They showed their findings in mouse models with glioblastoma, a cancer with an especially poor prognosis. By equipping viral particles with an "iron-mimic" peptide, they were able to deliver drugs across the BBB using the body's own iron transport system.

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