

BIOLOGY

From Miami Beach, Fla., at the Society for Neuroscience annual meeting

Stem cells track down brain cancer

Scientists are excited about the idea that transplants of immature nerve cells may provide a treatment for strokes, Parkinson's disease, and many other neurological conditions. Several studies presented in Miami Beach even hinted that these neural stem cells improve memory and learning skills when placed in the brains of aging rodents.

Karen S. Aboody of Children's Hospital in Boston and her colleagues now want to send such cells after brain tumors. Investigators have observed that neural stem cells, which are able to grow into any of the cell types in the brain, migrate to damaged areas. So, Aboody was curious whether these cells might home in on and infiltrate tumors. They do, even if injected on the opposite side of the brain from the cancer, according to her studies in rodents. The stem cells also seem to collect at the border where healthy tissue meets the tumor.

Moreover, Aboody has evidence that the stem cells follow and track down cancer cells that leave the primary tumor and invade the rest of the brain. If scientists can engineer neural stem cells to deliver a toxic compound to such wandering cancer cells, physicians might have a potent new weapon against invasive brain cancers, which are invariably fatal today, she says.

—J.T.