Can we 'cure' cancer by reprogramming our cells?

Most cancer patients don't die from their so-called primary tumor—the spot where it first develops. Once detected, surgeons cut it out or administer therapies to kill it—such as chemotherapy, radiation, or immunotherapy.

But cancer cells have an uncanny ability to travel. They slip through blood vessels' walls and catch a ride in the bloodstream to new places. Breast cancer's favorite destinations are the liver, lungs, bones, and brain, [oncology surgeon Karen] Kostroff says. Once there, they begin multiplying and become nearly impossible to extinguish.

"Patients die because cancers metastasize," says <u>David Spector</u>, a cell and molecular biologist at Cold Spring Harbor Laboratory on whose behalf Kostroff is asking for tumor donations.

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Spector focuses on deciphering the inner workings of the malignant cells that enable them to travel and invade other organs. In essence, he studies the <u>secret lives of breast cancer cells</u> and the ways to circumvent them. Spector thinks he can stop the perpetrators in their tracks with a drug currently under development. Cells can experience a kind of identity crisis; they forget who they are and run rampant through our bloodstreams. The drug, when perfected, would reprogram the cells to remember who they are and start behaving normally.

This is an excerpt. Read the original post here.