

Researchers may have found key to cancer cure in four-strand DNA

One problem with cancer treatments today is that they attack all cells indiscriminately. Chemotherapy for instance, hurts healthy cells and cancerous ones alike. With targeted therapy, only the cancer cells are damaged, leaving healthy ones alone. To do so, researchers must find what is unique about cancer cells. They may now have found one important aspect.

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Four-strand DNA is known as G-quadruplexes, because they occur in regions of DNA with a lot of guanine or [G](#).

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[Researchers] used small molecules to alter pre-cancerous cells, in order to search for G-quadruplexes. About 10,000 were located, mostly in areas that control gene behavior. They were particularly prominent around those genes associated with cancer.

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This study suggests that four-strand DNA could become the next target for novel and precision cancer treatment.

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Someday, cancer treatment may come down to flipping a few biochemical “switches,” stopping the cancer from multiplying and spreading. On this, Prof. [Shankar] Balasubramanian said, “Figuring out the fundamental processes...could help scientists develop new treatments that work against many types of the disease.”

The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion and analysis. Read full, original post: [Four-strand DNA May Hold the Secret to a Cancer Cure](#)