Cancer early warning system: Blood test looks for bits of DNA shed from tumors

In a bid to detect cancers early and in a noninvasive way, scientists at the Johns Hopkins Kimmel Cancer Center report they have developed a test that spots tiny amounts of cancer-specific DNA in blood and have used it to accurately identify more than half of 138 people with relatively early-stage colorectal, breast, lung and ovarian cancers. The test, the scientists say, is novel in that it can distinguish between DNA shed from tumors and other altered DNA that can be mistaken for cancer biomarkers.

• • •

The sequencing method is based on deep sequencing, which reads each chemical code in DNA 30,000 times. "We're trying to find the needle in the haystack, so when we do find a DNA alteration, we want to make sure it is what we think it is," says [Victor Velculescu, professor of oncology at the Johns Hopkins Kimmel Cancer Center].

Such deep sequencing, covering more than 80,000 base pairs of DNA, has the potential to be very costly, but Velculescu says sequencing technology is becoming cheaper, and his research team may eventually be able to reduce the number of DNA locations they screen while preserving the test's accuracy.

The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion, and analysis. Read full, original post: Scientists develop blood test that spots tumor-derived DNA in people with early stage cancers