'Chimeric RNA' reveals mistaken assumptions about cancer genes

Hui Li, PhD, of the Department of Pathology and the UVA Cancer Center, is a pioneer in a small but emerging field that is challenging fundamental assumptions about human genetics. He seeks to understand what is called chimeric RNA — genetic material that results when genes on two different chromosomes produce "fusion" RNA in a way scientists say shouldn't happen. Researchers have traditionally assumed these chimeric RNA are signs of cancer...But Li's work shows that's not always the case. Instead, these strange fusions can also be a normal, functional part of our genetic programming.

...

"There's a danger to assuming everything is cancer. That's actually dangerous. Don't rush to judgment about all of these chimera you find in cancer cells, because they could occur in normal cells," [Li said.]

. . .

[T]he scientists can't say how the fusions occur or why they occur or exactly how frequently they occur. And that speaks to how much there is to learn, Li noted. That knowledge will help us to better understand the human genome and to create better ways to detect...[and defeat] cancer.

The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion, and analysis. Read full, original post: <u>Strange 'chimeras' defy science's understanding of human genetics</u>