

Genes predisposing childhood cancer identified, point to future treatments

The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion and analysis.

As a doctor who treats young children affected by cancer, Dr. James Downing always gets asked the same question by distraught parents. “Every parent asks me why their child came down with cancer,” the president and CEO of St. Jude Children’s Research Hospital says. “I used to say by and large it was just bad luck. There are a lot of cells dividing, whether in utero, during early development or even puberty. Mistakes can occur, and you get cancer. It’s rare, but it’s bad luck.”

Now he knows that may not be entirely true. In a paper published in the *New England Journal of Medicine*, Downing and his colleagues report that there are a surprising number of genes that can predispose children to developing cancer, before they take their first breath. Such mutations in the cells they inherit from their mothers and fathers, called germ line mutations, can contribute to cancer even in families where there isn’t a strong family history of tumors.

Downing and his group began with the 565 genes identified by genetics experts as being implicated in cancer, and focused in on 60 genes that can cause cancer if a child inherits one mutated copy from one parent. They compared aberrations in these 60 genes among a group of 1,120 people who had childhood cancers and two other groups, one made up of healthy adults and another of people with autism, who were not diagnosed with cancer and served as controls.

Read full, original post: [Doctors Find ‘Crystal Ball for Childhood Cancer’ in Gene Study](#)