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Sibling study could lead to better treatments for inherited form of colon cancer

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Researchers at Huntsman Cancer Institute (HCI) believe they may be one step closer to understanding how certain forms of colon cancer develop.

In a study using siblings who have been diagnosed with colon cancer, scientists discovered similarities on a region of a particular chromosome, referred to as 7q31. Researchers believe that piece of genetic material may be causing a subset of colon cancers that run in families.

"It's those genetic similarities in colon cancer patients that would suggest that region holds a gene that's causing colon cancer," says Deborah Neklason, PhD and lead investigator on the study. Referred to as the Cancer Genetics Network "Sibling Pair Project," Neklason and other researchers analyzed the genetic material of 82 siblings. In addition to the discovery of a potential location of a cancer-causing gene, the research also shows siblings who share this genetic region tend to develop cancer 3.8 years earlier than siblings who do not. The study findings are published in the November 1, 2008 issue of *Cancer Research*.

Scientists already know roughly 30 percent of all colon cancers are a direct result of an inherited gene, but less than five percent of these genes have been identified. "Those cases where the genes have been identified tend to be pretty dramatic," says Neklason. "Colon cancer develops at young ages and the cases are easier to figure out. It's the other 25 percent that's tough. These cases are more like sporadic colon

cancer and are much more subtle," she says.

The findings could ultimately lead to a better understanding of the cellular process that results in cancer and its progression. It will likely pave the way for more targeted research that could someday result in a screening test to detect genetic forms of colon cancer.

Source: University of Utah