Analysis of breast and colon cancer genes finds many areas of differences between tumors

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Researchers from University Hospitals (UH) Ireland Cancer Center and Case Western Reserve University School of Medicine are part of a new national study that has analyzed more than 18,000 genes, including 5,000 previously unmapped genes, from breast and colorectal tumors.

The study, published online by the journal Science on Oct. 11, shows a great number of genetic differences between breast and colon cancer tumors, leading the researchers to conclude that new drugs must be developed that can hit these newly identified genetic targets in a manner specific to each different individual's tumor.

Sanford Markowitz, M.D., Ph.D., the Ingalls Professor of Cancer Research at the UH Ireland Cancer Center and Case Western Reserve University, said, “The new insights gained are important in that they indicate there is great genetic diversity from one tumor to the next. Only a handful of genes are common targets for damage, and it will accordingly be necessary to develop a panel of drugs that target specific mutant genes in order to be able to provide individualized cancer treatment to different individual patients.”

These results also have potential for tumor diagnosis, according to the researchers.

Source: University Hospitals of Cleveland