Medical Xpress

Gene identified in increasing pancreatic cancer risk

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Mutations in the ATM gene may increase the hereditary risk for pancreatic cancer, according to data published in *Cancer Discovery*, the newest journal of the American Association for Cancer Research.

Pancreatic cancer is one of the most morbid cancers, with less than 5 percent of those diagnosed with the disease surviving to five years. Approximately 10 percent of patients come from families with multiple cases of pancreatic cancer.

"There was significant reason to believe this clustering was due to genetics, but we had not, to this point, been able to find the causative genes that explained the cluster of pancreatic cancer for a majority of these families," said lead author Alison Klein, Ph.D., associate professor of oncology at the Sidney Kimmel Comprehensive Cancer Center at Johns Hopkins and director of the National Familial Pancreas Tumor Registry.

Klein and colleagues used next-generation sequencing, including whole genome and whole exome analyses, and identified ATM gene mutations in two kindreds with familial pancreatic cancer.

When these initial findings were examined in a large series for patients, ATM mutations were present in four of 166 subjects with pancreatic cancer but were absent in 190 spousal control subsets.

Klein said that knowledge of the presence of the ATM gene could lead

to better screening for pancreatic cancer, the fourth most common cause of cancer-related death. However, there are currently no recommended screening tests.

Many doctors use endoscopy as a screening tool for pancreatic cancer, but researchers are still evaluating this technique in clinical trials.

Provided by American Association for Cancer Research