

Not for Patient Use

PACGENE

*A Research Project
funded by the National
Cancer Institute*

(R01 CA 97075)

*Pancreatic Cancer Genetic
Epidemiology Consortium
(PACGENE Consortium)*



Tackling an important problem .

- Pancreatic cancer ranks in the top five among deaths due to cancer.
- In 2004, there will be 31,860 new patients with pancreatic cancer, and 31,270 deaths; 1 year survival is 24% and 5-year survival is 4%.
- Pancreatic cancer afflicts both men and women almost equally.
- Most patients are diagnosed too late for intervention.
- Treatments are not effective in substantially extending life.
- There is no widely accepted way to screen for pancreatic cancer.

Our mission .

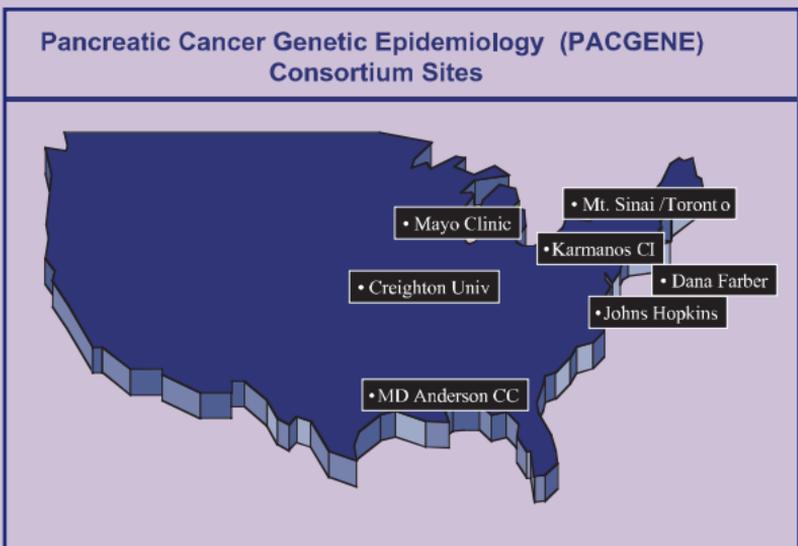
To identify susceptibility genes for pancreatic cancer in order to improve risk assessment and early detection of pancreatic cancer, and to help point to new strategies for screening, prevention, and treatment. Ten percent of patients with pancreatic cancer report having a relative who also has had this cancer.

Our strategy .

The PACGENE Consortium is designed to identify families in which multiple members have been diagnosed with pancreatic cancer. We study the families and their DNA, primarily using a method called genetic linkage analysis to help identify the actual genes that increase risk. The study also takes into account environmental exposures such as cigarette smoking.

How we function .

- Data collection centers perform the main task of screening family histories of pancreatic cancer patients and recruiting and studying families with multiple members affected with pancreatic cancer.
- Support cores manage the data and perform statistical analysis, and manage pathology samples and perform laboratory genetic studies.
- Genetic analysis of DNA from many pancreatic cancer patients utilizes the advances learned from the Human Genome Project.
- This project draws upon the expertise of geneticists, epidemiologists, gastroenterologists, oncologists, surgeons, pathologists, biostatisticians, laboratory scientists, and advocates. Resources are drawn from seven major research institutions.



How we are organized .

- Principal Investigator: Gloria M. Petersen, Ph.D., Mayo Clinic Rochester
- A Steering Committee composed of all key investigators from all sites meets regularly to review progress and design research strategy. Sites include:
 - Mayo Clinic, Rochester, MN
 - Johns Hopkins University, Baltimore, MD
 - Karmanos Cancer Institute, Detroit, MI
 - University of Texas/MD Anderson Cancer Center, Houston, TX
 - Creighton University, Omaha, NE
 - University of Toronto, Canada
 - Dana Farber Cancer Institute, Boston, MA
- An External Advisory Committee provides advice on important scientific and strategic planning issues. Members include:
 - Joan Bailey-Wilson, Ph.D., Chief of the Statistical Genetics Branch, National Human Genome Research Institute, Baltimore, MD
 - Albert Lowenfels, M.D., Professor of Surgery, New York Medical College, Valhalla, NY
 - Paula Kim, founder of Pancreatic Cancer Action Network (PANCAN), El Segundo, CA
 - James S. Howe, M.D., Professor of Surgery at University of Iowa, Iowa City, IA
 - David Klimstra, M.D., Associate Attending Pathologist, Memorial Sloan Kettering Cancer Center, New York, NY
 - John Potter, M.D., Ph.D. , Professor of Epidemiology, Fred Hutchinson Cancer Center, Seattle, WA

Who we are .

- Mayo Clinic, Rochester, MN: main administrative nexus and data management core for PACGENE; family studies. (Investigators: Gloria M. Petersen, Ph.D., Mariza de Andrade, Ph.D.)
- Johns Hopkins University, Baltimore, MD: pathology and laboratory support core; family studies. (Investigators: Ralph Hruban, M.D., Michael Goggins, M.D.)
- Karmanos Cancer Institute, Detroit, MI: family studies. (Investigators: Jeannette Korczak, Ph.D., Ann Schwartz, Ph.D.)
- University of Texas/MD Anderson Cancer Center, Houston, TX: family studies. (Investigator: Melissa Bondy, Ph.D.)
- Creighton University, Omaha, NE: family studies. (Investigator: Henry Lynch, M.D.)
- University of Toronto, Canada: family studies. (Investigator: Steven Gallinger, M.D.)
- Dana Farber Cancer Institute, Boston, MA: family studies. (Investigator: Sapna Syngal, M.D.)

Why we are committed .

- Pancreatic cancer is among the least understood major cancers; we can do better!
- Pancreatic cancer is very difficult to study; scientists who join forces and work together will achieve success faster.
- We are using what we know so far: cigarette smoking and family history are two main risk factors for pancreatic cancer.
- Family studies are an important key to unlocking the genetic basis of pancreatic cancer.

For more information
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<http://mayoresearch.mayo.edu/mayo/research/pacgene/index.cfm>