HOW YOU CAN HELP:

Most importantly, please return your update card!

**Sponsors** are eligible to donate a blood sample as a "control" (a person without pancreatic cancer to serve as a companion) for our research studies. Contact us at pancreas@jhmi.edu.

**Family members with at least one first degree relative with pancreatic cancer (sibling, parent, or child) as well as one other family member with pancreatic cancer are also eligible to donate a blood sample to aid our research. Contact us at pancreas@jhmi.edu.

**Interested in Screening?** Individuals with at least two other family members with pancreatic cancer MAY be eligible for a research screening study (CAPS 4) using endoscopic ultrasound here at Hopkins. For information, please contact the study coordinators, Hilary Costy or Verna Scheeler at caps4@jhmi.edu or 410-502-9795.

NEW PANCREATIC CANCER BLOG!

We encourage you to visit the new Johns Hopkins Pancreatic Cancer Blog at http://appp.pathology.jhu.edu/blogs/pancreas/

The blog was created to facilitate communication with patients, their families, and friends as they face health issues related to the pancreas. Johns Hopkins experts will regularly post blogs on "hot issues." We hope that you will read these blogs, get interested, and educational, and we encourage you to contribute your thoughts, experiences and expertise to the online blog.

Also, remember to follow our research progress throughout the year and keep up to date on exciting news by checking the "What's New" section of the Johns Hopkins Pancreatic Cancer Web at http://pathology.jhu.edu/pancreas/
Johns Hopkins has long been a site of revolutionary pancreatic cancer research. In an exciting advance, the complete genetic blueprint (the "genome") for pancreatic cancer was decoded by the pancreatic cancer research team at The Sol Goldman Pancreatic Cancer Research Center at Johns Hopkins. The study, led by Dr. Bert Vogelstein, Dr. Kenneth Kinzler and Dr. Victor Velculescu, is reported in the Sept. 26, 2008 issue of the journal Science.

This project had three main components: sequence analysis, copy number analysis, and expression analysis. After sequencing more than 20,000 genes in a series of 24 well-characterized pancreatic cancers, the team discovered over 1,500 DNA mutations in these cancers. Believed to be the most comprehensive genetic study to date for any tumor type, the new map evaluated mutations in virtually all known human protein-encoding genes in 24 pancreatic cancers. An average of 63 mutations was found in each cancer, supporting the growing body of evidence that cancer is fundamentally a disease caused by alterations in the DNA. The scientists identified 12 core cell signaling pathways and processes that were each altered in more than two-thirds of the cancers. These 12 core pathways provide the basis for novel diagnostic and therapeutic approaches in pancreatic cancer.

"This perspective changes the way we think about solid tumors and their management, because drugs or other agents that target the physiologic effects of these pathways, rather than individual gene components, are likely to be the most useful approach for developing new therapies," says Bert Vogelstein, M.D., co-director of the Ludwig Center at Johns Hopkins and a Howard Hughes Medical Institute investigator.

What does this mean for the average person? It means that we are making great strides in better understanding the basic science behind the development of pancreatic cancer. As director of The Sol Goldman Pancreatic Cancer Research Center, Dr. Ralph Hruban, said, "This landmark study characterizes the fundamental genetic components of pancreatic cancer and will guide research on this disease for the next decade. The enhanced understanding of pancreatic cancer gained from these studies and their follow-up work will hopefully lead to dramatic improvements in the prevention, detection, or treatment of pancreatic cancer." Your participation in this study gives us even more crucial information about the development of pancreas tumors in families.

NIFLOER AZAD, M.D. is an Assistant Professor of Oncology. She obtained her M.D. degree and Internal Medicine Fellowship from Baylor College of Medicine in Houston, Texas, followed by a fellowship in Medical Oncology at the National Cancer Institute.

We would like to welcome some new faces to the Pancreatic Cancer research team at Johns Hopkins. This year, two medical oncologists have joined the team, Drs. Nilo Azad and Dung Le.

Dung Le, M.D. is an oncologist whose primary focus is the treatment of patients with pancreatic cancer. She received her BS from Yale University and received all of her medical training at Johns Hopkins, including medical school, internal medicine residency, and medical oncology fellowship.

She has a special interest in immunotherapeutic approaches to pancreatic cancers. In the laboratory, she is studying immune effects in the tumor microenvironment to better understand the barriers to effective vaccination strategies. She works closely with Drs. Elizabeth Jaffee and Dan Laheru to translate various cancer vaccine approaches that have been developed in the laboratories at Hopkins into clinical trials. This includes evaluation of genetically modified Listeria monocytogenes that aim to prime an immune response to a protein (mesothelin) expressed on a majority of pancreatic cancers, as well as developing protocols that combine vaccines in a synergistic manner.

By working with a team of dedicated laboratory and clinical researchers, she is working to test the most efficient and effective vaccines in combination strategies that have strong scientific foundation in the hopes of providing more effective treatment options to her patients.

NILOFER AZAD, M.D. is an Assistant Professor of Oncology. She obtained her M.D. degree and Internal Medicine Fellowship from Baylor College of Medicine in Houston, Texas, followed by a fellowship in Medical Oncology at the National Cancer Institute.

Her research centers around finding new treatments for gastrointestinal cancer therapies using molecularly targeted drugs. The hope is that these targeted agents can attack cancer cells based on biological changes that are preferentially found in tumor cells over normal cells. The promise of targeted therapy is that we will be able to attack cancer cells while sparing normal tissue.

Dr. Azad has been pivotally involved in multiple trials of targeted agents alone and in combination. At the National Cancer Institute, Dr. Azad was instrumental in the design and implementation of a study using PARP inhibitors, agents that target the DNA repair pathway, with platinum-based chemotherapy in patients with BRCA2 gene mutations. Impaired DNA repair is an important characteristic of many GI malignancies, and Dr. Azad's clinical research will continue to explore agents that target DNA repair in treatment of GI cancers.

Both Dr. Le and Dr. Azad are a pivotal part of the pancreas cancer team at Johns Hopkins. To make an appointment with Dr. Le or Dr. Azad, contact the Sidney Kimmel Comprehensive Cancer Center at Johns Hopkins Hospital at 410-955-8644.

BRCA1 GENE MUTATION IS NOT A COMMON CAUSE OF FAMILIAL PANCREATIC CANCER

A recent study led by genetic counselor Jennifer Axibold and Dr. Alison Klein examined if inherited mutations in the first breast cancer gene, BRCA1, were a common cause of the familial clustering of pancreatic cancer. Several previous studies conducted have shown that individuals who inherit a mutation in the first breast cancer gene BRCA1 have a 2-fold increased risk of developing pancreatic cancer; this translates to about a 2% lifetime risk of developing pancreatic cancer.

Our investigators were interested in determining the frequency of BRCA1 mutations in families with 3 or more pancreatic cancers enrolled in the NFPTR. They sequenced DNA from 66 pancreatic cancer patients in these families. Overall, no deleterious mutations were detected. In contrast, in a similar study conducted by Drs. Kathy Murphy and Scott Kern in 2004 reported 17% of families with 3 or more pancreatic cancer carried deleterious mutations in BRCA2, the 2nd breast cancer gene.

These studies combined indicate that BRCA2 is a much more common cause of the familial clustering of pancreatic cancer than is BRCA1. Overall, we are continuing our efforts to look for the gene(s) responsible for the majority of the familial clustering of pancreatic cancer.

Dr. Alison Klein and Jennifer Axibold, MS

CERTIFICATE OF CONFIDENTIALITY

We want to remind participants that the NFPTR is protected by a Certificate of Confidentiality (NCI-01-062) from the National Institutes of Health, Department of Health and Human Services. This certificate further helps us protect the confidential information that you have provided by giving us legal protection from having to involuntarily release any information about you. With this certificate, we cannot be forced by court order to disclose any information for criminal, administrative, legislative, or other proceedings.

If you have any questions regarding this certificate or would like a copy, please contact us at 410-955-3502.