PANCREATIC CANCER NEWS & UPDATES – AUGUST 2013

PANCREATIC CANCER ACTION NETWORK AND COMMUNITY NEWS

Pancreatic Cancer Action Network news:

More than $5.1 million will be awarded through 2014 Pancreatic Cancer Action Network grants

http://www.pancan.org/section_research/research_grants_program/apply_for_a_grant.php

Pancreatic Cancer Action Network/AACR press release:

http://www.pancan.org/section_about/news_press_center/2013_press_releases/08_27_13_pr.php#.Uh03X5K1F8E

The Pancreatic Cancer Action Network will be awarding over $5.1 million in research funding in 2014. Applications are now being accepted for five of our grant mechanisms, which are administered in partnership with the American Association for Cancer Research (AACR). Click above for guidelines, deadlines, and fliers for posting and distribution. Spread the word!

Improved national clinical trial coordination, increased patient enrollment needed to speed advances

http://pancan.org/section_about/news_press_center/2013_press_releases/08_19_13_pr.php#.UhacrJK1GSo

The Pancreatic Cancer Action Network conducted a research study on the landscape of pancreatic cancer clinical trials in the United States in order to better understand how to accelerate clinical progress against pancreatic cancer and achieve the organization's goal to double the survival rate by 2020. The findings were published in the prestigious *Journal of Clinical Oncology*. Please see the "Treatment" section below for a link to the abstract of the paper.

Three leading biomedical researchers join our prestigious SAB and a new chair appointed to the MAB

http://pancan.org/section_about/news_press_center/2013_press_releases/08_13_13_pr.php#.Uhac7JK1GSo

The Pancreatic Cancer Action Network is pleased to welcome three new members to its prestigious Scientific Advisory Board: Sunil Hingorani, MD, PhD, Fred Hutchinson Cancer Research Center, Seattle, WA; Kimberly Kelly, PhD, University of Virginia, Charlottesville, VA; and Steven Leach, MD, Johns Hopkins University, Baltimore, MD. Vincent Picozzi, MD, Virginia Mason Medical Center, Seattle, WA, was appointed chair of the organization's Medical Advisory Board. Complete lists of our SAB and MAB can be found here: http://pancan.org/section_research/sci_med_advisors/.

Lynn Matrisian explains her evolutionary transition from science to advocacy

http://journals.lww.com/oncology-times/Fulltext/2013/08250/Lynn_Matrisian_Explains_Her_Evolutionary.5.aspx

This *Oncology Times* article features an interview with our very own Lynn Matrisian, PhD, vice president of scientific and medical affairs at the Pancreatic Cancer Action Network. The article concludes, "One of her major responsibilities at [the Pancreatic Cancer Action Network], she said, is to help the organization move closer to its goal of doubling the five-year survival rate for patients with pancreatic cancer to about 12 percent by 2020."

Please join us for the 16th annual An Evening with the Stars gala
http://pancan.org/section_get_involved/events_fundraising/evening_with_stars_gala.php
The 16th annual An Evening with the Stars gala is scheduled for October 19, 2013, at the Beverly Wilshire Hotel in Beverly Hills. As in years past, the evening will be filled with emotion, celebration and hope. We all look forward to seeing you there!

Funding opportunities:
New! **2014 Pancreatic Cancer Action Network research grants**
http://www.pancan.org/section_research/research_grants_program/apply_for_a_grant.php
Research Acceleration Network Grants: LOI deadline: October 7, 2013
Innovative Grants: LOI deadline: October 7, 2013
Career Development Awards: Application deadline: October 29, 2013
Pathway to Leadership Grants: Application deadline: October 29, 2013
Fellowships: Application deadline: October 29, 2013
Apply now! Spread the word!

New! **2014 NIH Director's Early Independence Awards**
http://commonfund.nih.gov/earlyindependence/index.aspx
Letters of intent deadline: Dec. 31, 2013
Applications deadline: January 31, 2014
The National Institutes of Health Common Fund announces the FY 2014 funding opportunity for the NIH Director's Early Independence Awards (EIA). The EIA initiative allows exceptional junior scientists to accelerate their transition to an independent research career by "skipping" the traditional postdoctoral training. To be eligible, candidates must be within one year (before or after) of completion of their terminal degree or clinical residency at the time of application. Each institution (as defined by a unique DUNS identifier) may submit up to two applications in response to this FOA.

New! **Clinical Studies of Safety and Effectiveness of Orphan Products Research Project Grant (R01)**
https://www.federalregister.gov/articles/2012/08/06/2012-19086/clinical-studies-of-safety-and-effectiveness-of-orphan-products-research-project-grant-r01#h-4
Applications deadline: February 5, 2014
The Food and Drug Administration (FDA) is announcing the availability of grant funds for the support of FDA's Office of Orphan Products Development (OPD) grant program. The goal of FDA's OPD grant program is to support the clinical development of products for use in rare diseases or conditions (defined as a disease or condition that has a prevalence, not incidence, of fewer than 200,000 people in the US) where no current therapy exists or where the proposed product will be superior to the existing therapy.

New! **Scientific information request: imaging tests for diagnosis, staging of pancreatic adenocarcinoma**
http://www.gpo.gov/fdsys/pkg/FR-2013-08-27/pdf/2013-20849.pdf
AGENCY: Agency for Healthcare Research and Quality (AHRQ), HHS
ACTION: Request for scientific information submissions
The Agency for Healthcare Research and Quality (AHRQ) is seeking scientific information submissions from the public on imaging tests for the diagnosis and staging of pancreatic adenocarcinoma. Scientific information is being solicited to inform our review of Imaging Tests for the Diagnosis and Staging of Pancreatic Adenocarcinoma, which is currently being conducted by the Evidence-based Practice Centers for the AHRQ Effective Health Care Program.

New grant empowers young researchers to find a cure for pancreatic cancer
http://www.gastro.org/news/articles/2013/07/30/new-grant-empowers-young-researchers-to-find-a-cure-for-pancreatic-cancer
Application deadline: Oct. 18, 2013
The American Gastroenterological Association (AGA) Research Foundation has announced a gift from the Bernard Lee Schwartz Foundation of $1,125,000 to the foundation's endowment. The AGA Institute will provide matching support, resulting in a $2,250,000 grant dedicated to advancing basic research in pancreatic cancer. Researchers interested in applying for the AGA-Bernard Lee Schwartz Designated Research Scholar Award in Pancreatic Cancer should visit www.gastro.org/foundation.

Lurie Prize in the Biomedical Sciences
http://www.fnih.org/content/lurie-prize-biomedical-sciences
Nominations deadline: October 1, 2013, 1:00 PM Eastern Daylight Time
Prize amount: $100,000
The Foundation for the National Institutes of Health (FNIH) is accepting nominations for the 2014 Lurie Prize in the Biomedical Sciences, an annual award recognizing outstanding achievement by a young scientist in biomedical research.

Clinical Assay Development Program (CADP)
http://cadp.cancer.gov/
Remaining 2013 application deadline: October 15
The NCI Clinical Assay Development Program (CADP) is requesting project applications from investigators in academia, government and industry seeking clinical assay validation resources. These resources are designed to assist with the development of assays that may predict therapy response or prognostic behavior of a diagnosed cancer, primarily for use in clinical trials.

Share your federal funding experiences: Help our advocacy efforts
http://www.pancan.org/section_research/resources_for_scientists/form_funding_experiences.php
Have you struggled to receive grants from the NCI or other federal institutions? Have you been successful? We're looking for information to help us understand what is working well for pancreatic cancer researchers and what could be improved (including, but not limited to, funding levels). We will use this information in our public policy efforts. Please click above and share your stories (they can be submitted anonymously).

Support of the Cancer Genome Atlas Program (TCGA): Funding opportunity
http://www.fdbdo.com/s12-335/
Financial support is available for submissions to the TCGA pancreas project. Please see the note from Kenna Shaw, PhD of the TCGA Program Office:
"Because of the poor prognosis and overall public health impact, pancreatic ductal adenocarcinoma has been selected to be studied by TCGA. However, the pancreatic cancer project might end before it even begins unless more collaborators provide tissue samples. The collapse of this research project would be a lost opportunity for the pancreatic cancer community ... If you have frozen, untreated samples in your tissue bank accompanied by blood, please help by providing them, either retrospectively or prospectively, to TCGA."

Meetings:

New! **Save the date: AACR Pancreatic Cancer special conference**

http://www.aacr.org/home/scientists/meetings--workshops/meetings--workshops-calendar.aspx

May 18-21, 2014, Hyatt Regency Hotel, New Orleans, LA

Offered for the first time in 2012, AACR is again hosting a special conference devoted to pancreatic cancer. Many Pancreatic Cancer Action Network research grant recipients, Scientific Advisory Board and Medical Advisory Board members will be integrally involved as meeting chairs, speakers, and presenters.

New! **AACR Annual Meeting call for abstracts**

http://www.aacr.org/Uploads/DocumentRepository/2014_AM/AM2014_CfA.pdf

April 5-9, 2014, San Diego, CA

Abstract submission opens: Tuesday, October 1

Registration and housing opens: Tuesday, September 24

The 105th Annual Meeting of the American Association for Cancer Research will highlight the latest and most exciting discoveries in every area of cancer research, and it will provide a unique opportunity for investigators from all over the world to meet, network, and forge new scientific interactions.

New! **AACR Annual Meeting 2014: Early-career speaker application**

http://www.aacr.org/home/scientists/meetings--workshops/aacr-annual-meeting-2014/early-career-speaker-application.aspx

Application deadline: Friday, October 18

New in 2014, the AACR invites Associate Members and early-career Active or Affiliate members to apply to give a talk in a major session at the AACR Annual Meeting 2014.

New! **2014 Gastrointestinal Cancers Symposium: Call for abstracts**

http://gicasym.org/?cmpid=db_gi_cfa_etoc_-_all_08-10-13_gihtml

January 16-18, 2014, San Francisco, CA

Abstract submission deadline: September 17, 2013, at 11:59 PM (EDT)

Abstracts are now being accepted for the 2014 Gastrointestinal Cancers Symposium, which will offer a fresh perspective on GI cancers, with a special focus on the most pertinent information oncologists of all subspecialties need to know now to provide the highest quality of care.

The Clinical Proteomic Tumor Analysis Consortium First Annual Scientific Symposium

http://www.capconcorp.com/meeting/2013/CPTAC/

November 13, 2013, Natcher Conference Facility, NIH, Bethesda, MD

The NCI is offering the first annual Clinical Proteomic Tumor Analysis Consortium (CPTAC) Scientific Symposium: Connecting Genome Alterations to Cancer Biology with Proteomics. The purpose of this symposium, which consists of plenary and poster sessions, is for investigators from CPTAC community and beyond to share and discuss novel biological discoveries, analytical methods, and translational approaches using CPTAC data. All scientists who use, or wish to use CPTAC data are welcome to participate.

Other community news:

US National Cancer Institute's new Ras project targets an old foe

http://www.nature.com/nm/journal/v19/n8/full/nm0813-949.html?WT.ec_id=NM-201308

A new initiative at the US National Cancer Institute (NCI) hopes to succeed where many have failed: to target the 'undruggable' oncogene, RAS. Frank McCormick, PhD, FRS stepped down as director of the Helen Diller Family Comprehensive Cancer Center at the University of California–San Francisco (UCSF) to help lead the NCI's new Ras initiative beginning 1 August. Dr. McCormick received a 2010 Innovative Grant funded by the Fredman Family Foundation, and is a member of our Scientific Advisory Board.

Selwyn Vickers, M.D., chosen to lead UAB School of Medicine

http://www.uab.edu/news/latest/item/3680-selwyn-vickers-md-chosen-to-lead-uab-school-of-medicine

Member of the Pancreatic Cancer Action Network's Emeritus Scientific Advisory Board, Selwyn Vickers, MD, has been named the next senior vice president for Medicine and dean of the University of Alabama at Birmingham (UAB) School of Medicine. Dr. Vickers, a member of the prestigious Institute of Medicine of the National Academy of Sciences, is a world-renowned surgeon, pancreatic cancer researcher, pioneer in health disparities research and a native of Alabama. He was recommended after an extensive national search.

New immunity-boosting drug helps body kill cancer

http://www.telegraph.co.uk/health/healthnews/10235296/New-immunity-boosting-drug-helps-body-kill-cancer.html

Scientists at the University of Southampton have developed the treatment in an attempt to tackle cancers, such as those of the pancreas, head and neck, that are particularly hard to deal with using available techniques. The new drug, which is called ChiLob 7/4, turns these cells back on and increases their numbers. By giving patients a vaccine at the same time that can train these immune cells to target cancer, doctors say they can focus the immune system's attacks on the tumour.

EMcision sells first units of groundbreaking minimally-invasive pancreatic tumor ablation device

http://www.newswire.ca/en/story/1209173/emcision-sells-first-units-of-groundbreaking-minimally-invasive-pancreatic-tumor-ablation-device

EMcision International Inc., a Montreal-based company specializing in advanced radiofrequency-based medical devices used in surgery, is pleased to announce it has sold its first units of the Habib™ RF DUO 13 catheter - a new device with immense potential to help abdominal cancer patients. The Habib™ RF DUO 13 is a long, thin tube that sends electric pulses to destroy malignant cells.

CANCER: The Emperor of All Maladies **documentary**

http://www.emperorofallmaladies.org/

CANCER: The Emperor of All Maladies is a three-part, six-hour major television event from preeminent documentary filmmaker Ken Burns, in partnership with WETA, the flagship public broadcasting station in Washington, D.C., based on the book by Siddharta Mukherjee, MD, DPhil. The documentary will be aired in the spring of 2015.

BIOLOGY OF CANCER

Macrophage-secreted cytokines drive pancreatic acinar-to-ductal metaplasia through NF-κB, MMPs
http://www.ncbi.nlm.nih.gov/pubmed/23918941

- Journal: *Journal of Cell Biology*
- Institution(s): Mayo Clinic, Jacksonville, FL
- Corresponding author(s): Peter Storz
- Pancreatic Cancer Action Network-affiliated author: Peter Storz, PhD: 2008 Patty Boshell – Career Development Award
- Major finding: The authors' results provide evidence that macrophages infiltrating the pancreas drive the transdifferentiation process of acinar-to-ductal metaplasia (ADM). In particular, they identify matrix metalloproteinases (MMPs) as targets that drive ADM and provide in vivo data suggesting that MMP inhibitors may be efficiently applied to block pancreatitis-induced ADM in therapy. See commentary about this article below.

Macrophages in pancreatic cancer: Starting things off on the wrong track
http://www.ncbi.nlm.nih.gov/pubmed/23918935

- Journal: *Journal of Cell Biology*
- Institution(s): Harvard Medical School, Boston, MA and others
- Corresponding author(s): Nabeel Bardeesy
- Pancreatic Cancer Action Network-affiliated author: Nabeel Bardeesy, PhD: 2008 Randy Pausch, PhD – Pilot Grant
- Major finding: This article provides commentary on the paper described above. The authors comment that the authors of the above article show that paracrine signals from the macrophages activate the nuclear factor κB transcriptional program in normal pancreatic acinar cells, resulting in acinar–ductal metaplasia, a dedifferentiated state that is poised for oncogenic transformation.

Transnuclear TRP1-specific CD8 T cells with high, low affinity TCRs show equivalent antitumor activity
http://cancerimmunolres.aacrjournals.org/content/1/2/99.abstract?sid=d22ede77-9bd4-40c1-80fd-9601b7b397e1

- Journal: *Cancer Immunology Research*
- Institution(s): Whitehead Institute for Biomedical Research, Cambridge, MA and others
- Corresponding author(s): Hidde Ploegh
- Pancreatic Cancer Action Network-affiliated authors:
    - Stephanie Dougan, PhD: 2012 Celgene Corporation – Pathway to Leadership Grant
    - Hidde Ploegh, PhD: 2011 Kovler – Innovative Grant
- Major finding: The tyrosinase related protein 1 (TRP1) transnuclear mice are an excellent model for examining the functional attributes of T cells conferred by T cell receptor (TCR) affinity, and they may serve as a platform for screening immunomodulatory cancer therapies.

Identification and manipulation of biliary metaplasia in pancreatic tumors
http://www.ncbi.nlm.nih.gov/pubmed/23999170

- Journal: *Gastroenterology*
- Institution(s): Mayo Clinic, Jacksonville, FL and others
- Corresponding author(s): Howard Crawford

- Pancreatic Cancer Action Network-affiliated author: Kenneth Olive, PhD: 2011 Tempur-Pedic® Retailers – Career Development Award
- Major finding: Expression of KrasG12D and the biliary progenitor marker SOX17 in mice induces development of metaplasias with a biliary phenotype, containing tuft cells. Tuft cells express a number of tumorigenic factors that can alter the microenvironment. Expression of SOX17 induces pancreatitis and promotes KrasG12D-induced tumorigenesis in mice.

Genetic alterations associated with progression from pancreatic intraepithelial neoplasia to invasive
http://www.ncbi.nlm.nih.gov/pubmed/23912084

- Journal: *Gastroenterology*
- Institution(s): Mayo Clinic, Rochester, MN and others
- Corresponding author(s): Stephen Murphy
- Pancreatic Cancer Action Network-affiliated author: Gloria Petersen, PhD: Member, Emeritus Scientific Advisory Board
- Major finding: Early-stage pancreatic intraepithelial neoplasia 2 (PanIN2) lesions appear to contain many of the somatic gene alterations required for PDAC development.

Integration of metabolomics, transcriptomics revealed a fatty acid network exerting growth inhibitory
http://www.ncbi.nlm.nih.gov/pubmed/23918603

- Journal: *Clinical Cancer Research*
- Institution(s): National Cancer Institute, NIH, Bethesda, MD and others
- Corresponding author(s): S. Perwez Hussain
- Pancreatic Cancer Action Network-affiliated author: Anirban Maitra, MBBS: 2004 Career Development Award and Chair, Scientific Advisory Board
- Major finding: The authors' results suggest that impairment in a lipolytic pathway involving lipases, and a unique set of free fatty acids (FFAs), may play an important role in the development and progression of pancreatic cancer and provide potential targets for therapeutic intervention.

MicroRNA-21 in pancreatic ductal adenocarcinoma tumor-associated fibroblasts promotes metastasis
http://www.ncbi.nlm.nih.gov/pubmed/23991015

- Journal: *PLoS One*
- Institution(s): David Geffen School of Medicine at University of California Los Angeles, Los Angeles, CA
- Corresponding author(s): Timothy Donahue
- Pancreatic Cancer Action Network-affiliated author: David Dawson, MD, PhD: 2008 Seena Magowitz – Career Development Award
- Major finding: miR-21 expression in pancreatic ductal adenocarcinoma (PDAC) tumor-associated fibroblasts (TAFs) is associated with decreased overall survival and promotes tumor cell invasion. Anti-miR-21 may represent a novel therapeutic strategy for dual targeting of both tumor and stroma in PDAC.

SOX2 promotes dedifferentiation and imparts stem cell-like features to pancreatic cancer cells
http://www.ncbi.nlm.nih.gov/pubmed/23917223

- Journal: *Oncogenesis*
- Institution(s): Mayo Clinic, Rochester, MN and others

- Corresponding author(s): Daniel Billadeau
- Pancreatic Cancer Action Network-affiliated author: Diane Simeone, MD: 2010 The Randy Pausch Family – Innovative Grant and Member, Scientific Advisory Board
- Major finding: The authors' findings show that SOX2 (Sex-determining region Y (SRY)-Box2) is aberrantly expressed in pancreatic cancer and contributes to cell proliferation and stemness/dedifferentiation through the regulation of a set of genes controlling G1/S transition and epithelial-to-mesenchymal transition (EMT) phenotype, suggesting that targeting SOX2-positive cancer cells could be a promising therapeutic strategy.

A tumorigenic factor interactome connected through tumor suppressor MicroRNA-198
http://www.ncbi.nlm.nih.gov/pubmed/23989979

- Journal: *Clinical Cancer Research*
- Institution(s): Baylor College of Medicine, Houston, TX and others
- Corresponding author(s): Qizhi Yao
- Major finding: MiR-198 acts as a central tumor suppressor and modulates the molecular makeup of a critical interactome in pancreatic cancer, indicating a potential prognostic marker signature and the therapeutic potential of attacking this tumorigenic network through a central vantage point.

Signatures of mutational processes in human cancer
http://www.ncbi.nlm.nih.gov/pubmed/23945592

- Journal: *Nature*
- Institution(s): Wellcome Trust Genome Campus, Hinxton, Cambridgeshire, UK and others
- Corresponding author(s): Michael Stratton
- Major finding: Here the authors analyzed 4,938,362 mutations from 7,042 cancers and extracted more than 20 distinct mutational signatures. The results reveal the diversity of mutational processes underlying the development of cancer, with potential implications for understanding of cancer etiology, prevention and therapy.

A tumorigenic factor interactome connected through tumor suppressor microRNA-198
http://www.ncbi.nlm.nih.gov/pubmed/23989979

- Journal: *Clinical Cancer Research*
- Institution(s): Baylor College of Medicine, Houston, TX and others
- Corresponding author(s): Qizhi Yao
- Major finding: MiR-198 acts as a central tumor suppressor and modulates the molecular makeup of a critical interactome in pancreatic cancer, indicating a potential prognostic marker signature and the therapeutic potential of attacking this tumorigenic network through a central vantage point.

MicroRNA-221 mediates the effects of PDGF-BB on migration, proliferation, and EMT
http://www.ncbi.nlm.nih.gov/pubmed/23967190

- Journal: *PLoS One*
- Institution(s): Sichuan University, Chengdu, P. R. China
- Corresponding author(s): Zhaoda Zhang
- Major finding: The authors' study demonstrates that miR-221 is essential for the platelet-derived growth factor (PDGF)-mediated epithelial-mesenchymal transition (EMT) phenotype, migration,

and growth of pancreatic cancer cells. Down-regulation of TRPS1 by miR-221 is critical for PDGF-mediated acquisition of the EMT phenotype. Additionally, the PDGF-dependent increase in cell proliferation appears to be mediated by inhibition of a specific target of miR-221 and down-regulation of p27Kip1.

IL-1α expression affects the tumor cell migration and is regulated by the p38MAPK signaling pathway
http://www.ncbi.nlm.nih.gov/pubmed/23951028

- Journal: *PLoS One*
- Institution(s): Linköping University, Linköping, Sweden and others
- Corresponding author(s): Marie Larsson
- Major finding: Taken together, the blockage of signaling pathways leading to IL-1α expression and/or neutralization of IL-1α in the pancreatic ductal adenocarcinoma microenvironment should be taken into consideration as possible treatment or complement to existing treatment of this cancer.

Simultaneous knock-down of Bcl-xL and Mcl-1 induces apoptosis through Bax activation
http://www.ncbi.nlm.nih.gov/pubmed/23954445

- Journal: *Biochimica et Biophysica Acta (BBA) - Molecular Cell Research*
- Institution(s): Nagoya City University Graduate School of Medical Sciences, Nagoya, Japan and others
- Corresponding author(s): Guido Eibl
- Major finding: The authors' results demonstrated that Bcl-xL and Mcl-1 play an important role in pancreatic cancer cell survival. Targeting both Bcl-xL and Mcl-1 may be an intriguing therapeutic strategy in pancreatic cancer.

miR-143 decreases COX-2 mRNA stability and expression in pancreatic cancer cells
http://www.ncbi.nlm.nih.gov/pubmed/23973710

- Journal: *Biochemical and Biophysical Research Communications*
- Institution(s): University of California – Los Angeles, Los Angeles, CA and others
- Corresponding author(s): Guido Eibl
- Major finding: Deregulated miRNA expression contributes to disease progression in several cancers types, including pancreatic cancers (PaCa). PaCa tissues and cells exhibit decreased miRNA, elevated cyclooxygenase (COX)-2 and increased prostaglandin E2 (PGE2) resulting in increased cancer growth and metastases.

Early epigenetic downregulation of WNK2 during pancreatic ductal adenocarcinoma development
http://www.ncbi.nlm.nih.gov/pubmed/23912455

- Journal: *Oncogene*
- Institution(s): German Cancer Research Center (DKFZ), Heidelberg, Germany
- Corresponding author(s): Peter Schmezer
- Major finding: The authors analyzed enriched, highly methylated DNAs from pancreatic ductal adenocarcinoma (PDAC), chronic pancreatitis (CP) and normal tissues using CpG island microarrays and identified WNK2 as a prominent candidate tumor suppressor gene being downregulated early in PDAC development.

Identification of genes and candidate agents associated with pancreatic cancer
http://www.ncbi.nlm.nih.gov/pubmed/23934415

- Journal: *Tumor Biology*
- Institution(s): Shengjing Hospital of China Medical University, Shenyang, China
- Corresponding author(s): Bao-sheng Wang
- Major finding: The authors' data provide a comprehensive bioinformatics analysis of genes and pathways which may be involved in the progression of pancreatic cancer.

Assessment of the stromal contribution to Sonic Hedgehog-dependent pancreatic adenocarcinoma
http://www.ncbi.nlm.nih.gov/pubmed/23998958

- Journal: *Molecular Oncology*
- Institution(s): University of Amsterdam, Amsterdam, The Netherlands and others
- Corresponding author(s): Maarten Bijlsma
- Major finding: The presented data provide insight into the role of the activated stroma in pancreatic ductal adenocarcinoma, and how Sonic Hedgehog (SHH) acts to mediate this response. In addition, the study has yielded several candidates that are interesting therapeutic targets for a disease for which treatment options are still inadequate.

ETIOLOGY

Family history of diabetes and pancreatic cancer as risk factors for pancreatic cancer: PACIFIC study
http://www.ncbi.nlm.nih.gov/pubmed/23966578

- Journal: *Cancer Epidemiology, Biomarkers & Prevention*
- Institution(s): University of Washington, Seattle, WA and others
- Corresponding author(s): Melissa Austin
- Pancreatic Cancer Action Network-affiliated authors:
    - Margaret Mandelson, PhD: Member, Emeritus Scientific Advisory Board
    - Teri Brentnall, MD: Member, Emeritus Scientific Advisory Board
- Major finding: The authors' results support need for ongoing studies of genetic influences on pancreatic cancer in large samples and investigations of possible pleiotropic genetic effects on diabetes and pancreatic cancer.

A high-fat diet activates oncogenic Kras and COX2 to induce pancreatic ductal adenocarcinoma in mice
http://www.ncbi.nlm.nih.gov/pubmed/23958541

- Journal: *Gastroenterology*
- Institution(s): M.D. Anderson Cancer Center, Houston, TX and others
- Corresponding author(s): Zobeida Cruz-Monserrate
- Pancreatic Cancer Action Network-affiliated authors:
    - Huamin Wang, MD, PhD: 2007 Skip Viragh – Career Development Award
    - Jason Fleming, MD: Member, Medical Advisory Board
    - Craig Logsdon, PhD: Member, Emeritus Scientific Advisory Board
- Major finding: In mice, a high-fat diet (HFD) can activate oncogenic Kras via cyclooxygenase-2 (COX2), leading to pancreatic inflammation and fibrosis, and development of pancreatic intraepithelial neoplasia (PanIN) and pancreatic ductal adenocarcinoma (PDAC). This mechanism could be involved in the association between risk for PDAC and HFDs.

The Healthy Eating Index 2005 and risk of pancreatic cancer in the NIH-AARP study
http://www.ncbi.nlm.nih.gov/pubmed/23949329

- Journal: *Journal of the National Cancer Institute*
- Institution(s): Yale School of Public Health, New Haven, CT and others
- Corresponding author(s): Hannah Arem
- Major finding: The authors' findings support the hypothesis that consuming a high-quality diet, as scored by the Healthy Eating Index 2005 (HEI-2005), may reduce the risk of pancreatic cancer.

Flavonoid apigenin modified gene expression associated with inflammation, cancer, apoptosis
http://www.ncbi.nlm.nih.gov/pubmed/23943362

- Journal: *Molecular Nutrition & Food Research*
- Institution(s): University of Illinois at Urbana-Champaign, IL
- Corresponding author(s): Elvira Gonzalez de Mejia
- Major finding: Flavonoids, limonoids, phenolic acids, and ascorbic acid were tested for cytotoxic effects on BxPC-3 and PANC-1 pancreatic cancer cells; apigenin was the most potent. The authors conclude that flavonoids have a protective role in pancreatic cancer tumorigenesis. This article and the one described above picked up a great deal of media attention.

The role of Mediterranean diet on the risk of pancreatic cancer
http://www.ncbi.nlm.nih.gov/pubmed/23928660

- Journal: *British Journal of Cancer*
- Institution(s): IRCCS-Istituto di Ricerche Farmacologiche 'Mario Negri', Milan, Italy
- Corresponding author(s): Maurice Zeegers
- Major finding: The authors' study provides evidence that a priori-defined scores measuring adherence to the Mediterranean diet are favorably associated with pancreatic cancer risk.

Lifetime adiposity and risk of pancreatic cancer in the NIH-AARP Diet and Health Study cohort
http://www.ncbi.nlm.nih.gov/pubmed/23985810

- Journal: *The American Journal of Clinical Nutrition*
- Institution(s): Department of Health and Human Services, Rockville, MD and others
- Corresponding author(s): Rachael Stolzenberg-Solomon
- Major finding: Overweight and obesity at any age are associated with increased pancreatic cancer.

Ulcer, gastric surgery and pancreatic cancer risk: an analysis from PanC4
http://www.ncbi.nlm.nih.gov/pubmed/23970016

- Journal: *Annals of Oncology*
- Institution(s): Istituto di Ricerche Farmacologiche 'Mario Negri', Milan and others
- Corresponding author(s): Cristina Bosetti
- Major finding: This uniquely large collaborative study does not support the hypothesis that peptic ulcer and its treatment materially affect pancreatic cancer risk. The increased risk for short-term history of ulcer and gastrectomy suggests that any such association is due to increased cancer surveillance.

Role of bacterial infections in pancreatic cancer
http://www.ncbi.nlm.nih.gov/pubmed/23843038

- Journal: *Carcinogenesis*
- Institution(s): Brown University, Providence, RI and others
- Corresponding author(s): Dominique Michaud
- Major finding: This review will summarize the literature on epidemiological studies examining infections that have been linked to pancreatic cancer and propose mechanistic pathways that may tie infections to pancreatic cancer.

PREVENTION

High fat, high calorie diet promotes early pancreatic neoplasia in conditional KrasG12D mouse model
http://www.ncbi.nlm.nih.gov/pubmed/23943783

- Journal: *Cancer Prevention Research*
- Institution(s): David Geffen School of Medicine at UCLA, Los Angeles, CA and others
- Corresponding author(s): Guido Eibl
- Pancreatic Cancer Action Network-affiliated author: David Dawson, MD, PhD: 2008 Seena Magowitz – Career Development Award
- Major finding: The authors' results demonstrate that a diet high in fats and calories leads to obesity and metabolic disturbances similar to humans and accelerates early pancreatic neoplasia in the conditional KrasG12D mouse model. This model and findings will provide the basis for more robust studies attempting to unravel the mechanisms underlying the cancer-promoting properties of obesity as well as to evaluate dietary- and chemo-preventive strategies targeting obesity-associated pancreatic cancer development.

Dietary energy balance modulation of Kras- and Ink4a/Arf+/--driven pancreatic cancer: Role of IGF-1
http://www.ncbi.nlm.nih.gov/pubmed/23980075

- Journal: *Cancer Prevention Research*
- Institution(s): University of Texas at Austin, Austin, TX and others
- Corresponding author(s): Stephen Hursting
- Pancreatic Cancer Action Network-affiliated author: Craig Logsdon, PhD: Member, Emeritus Scientific Advisory Board
- Major finding: Dietary energy balance modulation impacts spontaneous pancreatic tumorigenesis induced by mutant Kras and Ink4a deficiency, the most common genetic alterations in human pancreatic cancer. Furthermore, insulin-like growth factor (IGF) 1 and components of its downstream signaling pathway are promising mechanistic targets for breaking the obesity-pancreatic cancer link.

Vitamin E δ-tocotrienol prolongs survival in the KPC transgenic mouse model of pancreatic cancer
http://www.ncbi.nlm.nih.gov/pubmed/23963802

- Journal: *Cancer Prevention Research*
- Institution(s): H. Lee Moffitt Cancer Center, Tampa, FL and others
- Corresponding author(s): Mokenge Malafa
- Pancreatic Cancer Action Network-affiliated author: Mokenge Malafa, MD: Member, Medical Advisory Board

- Major finding: The authors' results strongly support further investigation of vitamin E δ-tocotrienol (VEDT) alone and in combination with gemcitabine for pancreatic cancer prevention and treatment.

Is pancreatic cancer a preventable disease?
http://www.ncbi.nlm.nih.gov/pubmed/11509062

- Journal: *Journal of the American Medical Association*
- Institution(s): Northwestern University Medical School, Chicago, IL
- Corresponding author(s): Susan Gapstur
- Major finding: It is both surprising and gratifying that pancreatic cancer should be emerging as a form of cancer that might be preventable, at least in part through modification of lifestyle habits such as diet, exercise, and smoking.

EARLY DETECTION, DIAGNOSIS, AND PROGNOSIS

Serum CA 19-9 represents a marker of response to neoadjuvant therapy
http://www.ncbi.nlm.nih.gov/pubmed/23991810

- Journal: *HPB*
- Institution(s): University of Texas MD Anderson Cancer Center, Houston, TX
- Corresponding author(s): Matthew Katz
- Pancreatic Cancer Action Network-affiliated authors:
    - Huamin Wang, MD, PhD: 2007 Skip Viragh – Career Development Award
    - Christopher Crane, MD: Member, Medical Advisory Board
    - Jason Fleming, MD: Member, Medical Advisory Board
- Major finding: The serum CA 19-9 level represents a dynamic preoperative marker of tumor biology and response to neoadjuvant therapy, and provides prognostic information in both non-resected and resected patients with borderline resectable pancreatic cancer.

Failure patterns in resected pancreas adenocarcinoma: Lack of predicted benefit to SMAD4 expression
http://www.ncbi.nlm.nih.gov/pubmed/23360922

- Journal: *Annals of Surgery*
- Institution(s): Thomas Jefferson University, Philadelphia, PA
- Corresponding author(s): Peter Allen
- Pancreatic Cancer Action Network-affiliated author: Eileen O'Reilly, MD: Member, Medical Advisory Board
- Major finding: Primary tumor SMAD4 expression status was not a predictor of recurrence pattern in a large cohort of patients with resected pancreatic ductal adenocarcinoma.

Pancreatic neuroendocrine tumours: hypoenhancement on arterial phase CT predicts aggressiveness
http://www.ncbi.nlm.nih.gov/pubmed/23991643

- Journal: *HPB*
- Institution(s): Stanford University Medical Center, Stanford, CA
- Corresponding author(s): George Poultsides
- Pancreatic Cancer Action Network-affiliated author: George Fisher, MD: Member, Medical Advisory Board

- Major finding: Hypoenhancement on phase computed tomography (APCT) was noted in 22% of well-differentiated pancreatic neuroendocrine tumors and was an independent predictor of poor outcome. This information can inform pre-operative decisions in the multidisciplinary treatment of these neoplasms.

Imaging tests for the diagnosis and staging of pancreatic adenocarcinoma
http://effectivehealthcare.ahrq.gov/index.cfm/search-for-guides-reviews-and-reports/?productid=1620&pageaction=displayproduct
The Effective Health Care Program of the Agency for Healthcare Research and Quality at the US Department of Health & Human Services prepared this review concerning imaging tests to identify and diagnose suspected pancreatic cancer and to determine stage and surgical resectability of the disease. The sections describe the roles of various imaging tests in informing these clinical decisions.

Molecular imaging in pancreatic cancer - A roadmap for therapeutic decisions
http://www.ncbi.nlm.nih.gov/pubmed/23941833

- Journal: *Cancer Letters*
- Institution(s): Indiana University School of Medicine, Indianapolis, IN
- Corresponding author(s): Murray Korc
- Major finding: In addition to standard imaging techniques, experimental imaging strategies, such as those utilizing molecular probes, nanoparticle-based agents, and tagged antibodies are actively being explored experimentally. It is hoped that advances in these technologies will allow for detecting pancreatic ductal adenocarcinoma at an early stage, and could serve to validate experimental therapies, rapidly identify non-responders, and assist in the design of novel therapeutic strategies tailored to the patient's molecular profile.

Biomarkers for pancreatic cancer: promising new markers and options beyond CA 19-9
http://www.ncbi.nlm.nih.gov/pubmed/23949878

- Journal: *Tumor Biology*
- Institution(s): Saint Barnabas Medical Center, Livingston, NJ and others
- Corresponding author(s): Ronald Chamberlain
- Major finding: This review provides an insight into exciting new areas of pancreatic biomarker research such as salivary, pancreatic juice, and stool markers that can be used as a noninvasive test to identify pancreatic cancer. This manuscript also provides a discussion on newer biomarkers, the role of microRNAs, and pancreatic cancer proteomics, which have the potential to identify a preferred tumor marker for pancreatic adenocarcinoma. This review further elaborates on important genetic changes associated with the development and progression of pancreatic cancer that holds the key for the identification of a sensitive biomarker and which could also serve as a therapeutic target.

Modular microsystem for the isolation, enumeration and phenotyping of circulating tumor cells
http://www.ncbi.nlm.nih.gov/pubmed/23947293

- Journal: *Analytical Chemistry*
- Institution(s): Louisiana State University, Baton Rouge, LA and others
- Corresponding author(s): J. J. Yeh and S. A. Soper
- Major finding: In this manuscript, the authors discuss the development and clinical use of a thermoplastic modular microsystem for the high-throughput analysis of circulating tumor cells (CTCs) directly from whole blood. The authors demonstrate the ability to select EpCAM positive

CTCs from pancreatic ductal adenocarcinoma (PDAC) patients in high purity and with excellent yields using their modular system. In addition, they demonstrate the ability to detect CTCs in PDAC patients with local resectable disease.

Cytological criteria of high-grade epithelial atypia in the cyst fluid of pancreatic IPMNs
http://www.ncbi.nlm.nih.gov/pubmed/23939829

- Journal: *Cancer Cytopathology*
- Institution(s): Harvard Medical School, Boston, MA and others
- Corresponding author(s): Martha Bishop Pitman
- Major finding: Intraductal papillary mucinous neoplasm (IPMN) cyst fluid at high-risk of malignancy can be recognized most accurately by the presence of epithelial cells with high-grade atypia (HGA) showing an increased nuclear-to-cytoplasmic ratio, an abnormal chromatin pattern, and background necrosis.

Impact of tumor grade on pancreatic cancer prognosis: Validation of a novel TNMG staging system
http://www.ncbi.nlm.nih.gov/pubmed/23943022

- Journal: *Annals of Surgical Oncology*
- Institution(s): Greater Los Angeles VA Healthcare System, Los Angeles, CA and others
- Corresponding author(s): James Tomlinson
- Major finding: The authors were able to demonstrate that grade is one of the strongest independent prognostic factors in pancreatic ductal adenocarcinoma. Restaging with their novel tumor, node, metastasis, grade (TNMG) system demonstrated improved prognostication. This system offers an effective and convenient way of adding grade to the current American Joint Committee on Cancer (AJCC) staging system.

Reduced expression of bone morphogenetic protein receptor IA is associated with a poor prognosis
http://www.ncbi.nlm.nih.gov/pubmed/23969729

- Journal: *British Journal of Cancer*
- Institution(s): Leiden University Medical Center, Leiden, The Netherlands
- Corresponding author(s): James Hardwick
- Major finding: The authors' data suggest that bone morphogenetic protein receptor IA (BMPRIA) expression is a good prognostic marker and that the BMP pathway is a potential target for future therapeutic interventions in pancreatic cancer.

IGF-1 receptor and IGF binding protein-3 might predict prognosis of resectable pancreatic cancer
http://www.ncbi.nlm.nih.gov/pubmed/23962053

- Journal: *BMC Cancer*
- Institution(s): Osaka City University Graduate School of Medicine, Osaka, Abeno-ku, Japan
- Corresponding author(s): Masakazu Yashiro
- Major finding: Insulin-like growth factor-1 receptor (IGF1R) signaling might be associated with tumor aggressiveness, and IGF binding protein-3 (IGFBP3) might show antiproliferative effects in pancreatic cancer. Both high IGF1R expression and low IGFBP3 expression represent useful prognostic markers for patients with curatively resected pancreatic cancer.

Immune infiltrates as predictive markers of survival in pancreatic cancer patients
http://www.ncbi.nlm.nih.gov/pubmed/23950747

- Journal: *Frontiers in Physiology*
- Institution(s): San Raffaele Scientific Institute, Milan, Italy
- Corresponding author(s): Maria Pia Protti
- Major finding: Specifically, in this review the authors focus on tumor infiltrating lymphocytes (TILs), mast cells (MCs) and macrophages that all contribute to a Th2-type inflammatory and immunosuppressive microenvironment. In these patients tumor immune infiltrates not only do not contribute to disease eradication but rather the features of Th2-type inflammation and immunosuppression is significantly associated with more rapid disease progression and reduced survival.

GeneDx introduces advanced genetic test panels for inherited cancer
http://online.wsj.com/article/PR-CO-20130826-901834.html

- Company: GeneDx, Gaitherburg, MD
- Major finding: GeneDx, one of the world's foremost genetic testing laboratories and a wholly-owned subsidiary of Bio-Reference Laboratories, Inc. has announced the launch of a comprehensive suite of genetic tests for inherited cancer, including a 26-gene panel for breast and ovarian cancer that includes BRCA1 and BRCA2 and next generation sequencing based multi-gene panels for colorectal cancer, pancreatic cancer, and endometrial cancer.

TREATMENT

Pancreatic cancer clinical trials and accrual in the United States
http://www.ncbi.nlm.nih.gov/pubmed/23960185
Pancreatic Cancer Action Network write-up:
http://pancan.org/section_research/strategic_research_program/viewpoints/jco-publishes-overview-of-clinical-trials.php#.UhacJZK1GSo

- Journal: *Journal of Clinical Oncology*
- Institution(s): Pancreatic Cancer Action Network, Manhattan Beach, CA
- Corresponding author(s): Lynn Matrisian
- Pancreatic Cancer Action Network-affiliated authors: This article was written by the Research & Scientific Affairs and Patient & Liaison Services teams at the Pancreatic Cancer Action Network
- Major finding: Overall trial enrollment indicates that pancreatic cancer trials open in 2011 would require 6.7 years on average to complete accrual. These results suggest that harmonizing patient supply and demand for clinical trials is required to accelerate progress toward improving survival in pancreatic cancer. Also see editorial below.

Timely completion of scientifically rigorous cancer clinical trials: An unfulfilled priority
http://www.ncbi.nlm.nih.gov/pubmed/23960175

- Journal: *Journal of Clinical Oncology*
- Institution(s): National Cancer Institute, National Institutes of Health, Bethesda, MD
- Corresponding author(s): James Doroshow
- Major finding: This editorial discusses the findings described in the Pancreatic Cancer Action Network's article above. Dr. Doroshow concludes that progress in facilitating the development, activation, and evaluation of clinical investigations will fall short of improving the lives of cancer patients unless prioritized trials are completed on time and in a fashion that allows for a clear

and scientifically rigorous interpretation of their results. To do so will require a substantively renewed effort to increase clinical trial support levels, thus helping to fulfill the unfulfilled priority of rapid clinical trial accrual.

Evaluation of ipilimumab with allogeneic pancreatic tumor cells transfected with a GM-CSF gene
http://www.ncbi.nlm.nih.gov/pubmed/23924790

- Journal: *Journal of Immunotherapy*
- Institution(s): Johns Hopkins University, Baltimore, MD
- Corresponding author(s): Daniel Laheru
- Pancreatic Cancer Action Network-affiliated authors:
    - Eric Lutz, PhD: 2013 Career Development Award
    - Elizabeth Jaffee, MD: Member, Emeritus Scientific Advisory Board
- Major finding: Checkpoint blockade with the cytotoxic T lymphocyte-associated antigen-4 (CTLA-4) antibody ipilimumab in combination with GM-CSF cell-based vaccines (GVAX) has the potential for clinical benefit in patients with previously treated pancreatic ductal adenocarcinoma, and should be evaluated in a larger study.

Subtype specific MEK - PI3 kinase feedback as a therapeutic target in pancreatic adenocarcinoma
http://www.ncbi.nlm.nih.gov/pubmed/23918833

- Journal: *Molecular Cancer Therapeutics*
- Institution(s): University of California San Francisco, San Francisco, CA
- Corresponding author(s): W. Michael Korn
- Pancreatic Cancer Action Network-affiliated authors:
    - Eric Collisson, MD: 2012 Skip Viragh – Career Development Award
    - Andrew Ko, MD: 2003 Career Development Award
- Major finding: Knock-down of HER3 in epithelial-type and ZEB1 in mesenchymal-type PDA cell lines resulted in sensitization to the combination of MEK and EGFR inhibitors. Thus, the authors' findings suggest a new, subtype-specific and personalized therapeutic strategy for pancreatic cancer.

A phase I study of an agonist CD40 monoclonal antibody (CP-870,893) with gemcitabine
http://www.ncbi.nlm.nih.gov/pubmed/23983255

- Journal: *Clinical Cancer Research*
- Institution(s): University of Pennsylvania, Philadelphia, PA and others
- Corresponding author(s): Gregory Beatty
- Pancreatic Cancer Action Network-affiliated author: Bob Vonderheide, MD, DPhil: 2013 Tempur-Pedic – Inaugural Research Acceleration Network Grant in Memory of Tim Miller and Member, Scientific Advisory Board
- Major finding: CP-870,893, an agonist CD40 antibody, in combination with gemcitabine was well-tolerated and associated with anti-tumor activity in patients with pancreatic ductal adenocarcinoma. Changes in [18F]-fluorodeoxyglucose (FDG) uptake detected on positron emission tomography/computed tomography (PET/CT) imaging provide insight into therapeutic benefit. Phase II studies are warranted.

Contribution of FKBP5 genetic variation to gemcitabine treatment and survival
http://www.ncbi.nlm.nih.gov/pubmed/23936393

- Journal: *PLoS One*
- Institution(s): Mayo Clinic, Rochester, MN
- Corresponding author(s): Liewei Wang
- Pancreatic Cancer Action Network-affiliated author: Gloria Petersen, PhD: Member, Emeritus Scientific Advisory Board
- Major finding: FKBP51, (FKBP5), is a negative regulator of Akt. Variability in FKBP5 expression level is a major factor contributing to variation in response to chemotherapeutic agents including gemcitabine. This comprehensive FKBP5 resequencing study provides insights into the role of genetic variation in variation of gemcitabine response in pancreatic cancer.

Phase II study of induction fixed-dose rate gemcitabine and bevacizumab followed radiotherapy
http://www.ncbi.nlm.nih.gov/pubmed/23904005

- Journal: *Annals of Surgical Oncology*
- Institution(s): UPMC Pancreatic Cancer Center, Pittsburgh, PA and others
- Corresponding author(s): Herbert Zeh and A. James Moser
- Major finding: Induction therapy with fixed-dose rate (FDR) gemcitabine (GEM) combined with the angiogenesis inhibitor bevacizumab (BEV), followed by accelerated BEV/radiotherapy (RT), was well tolerated. Although both effectiveness criteria were achieved, survival outcomes were equivalent to published regimens. Also see commentary below

Rational endpoint(s) for preoperative trials: Pathologic response rate, margin negative resection, OS?
http://www.ncbi.nlm.nih.gov/pubmed/23943023

- Journal: *Annals of Surgical Oncology*
- Institution(s): The University of Texas MD Anderson Cancer Center, Houston, TX and others
- Corresponding author(s): Douglas Evans
- Major finding: This provides commentary on the article described above. Ultimately, to make progress, all preoperative clinical trial designs for pancreatic ductal adenocarcinoma should have standardized valid study endpoints, agreed on by consensus, which then allows meaningful comparisons between studies. In that regard, the authors look forward to the results of the intergroup Alliance (A0211101) trial, a pilot multi-institutional preoperative study in borderline patients, which will hopefully establish a research infrastructure upon which future trials can be based.

Phase II study on combined IV and intra-arterial chemotherapy with gemcitabine and mitomycin C
http://www.ncbi.nlm.nih.gov/pubmed/23933944

- Journal: *Hepato-Gastroenterology*
- Institution(s): University Hospital of Frankfurt, Germany
- Corresponding author(s): Matthias Lorenz
- Major finding: Combined intravenous and intra-arterial chemotherapy with gemcitabine and mitomycin C in patients with advanced pancreatic cancer was well tolerated and resulted in tumor response rates, median overall- and progression-free survival times superior to systemic gemcitabine chemotherapy, and comparable to the more toxic FOLFIRINOX regimen.

Phase II trial of gemcitabine and S-1 for patients with advanced pancreatic cancer
http://www.ncbi.nlm.nih.gov/pubmed/23978987

- Journal: *Cancer Chemotherapy and Pharmacology*
- Institution(s): Hallym University College of Medicine, GyeongGi-Do, Republic of Korea
- Corresponding author(s): Dae Young Zang
- Major finding: Combination chemotherapy with gemcitabine and S-1 was effective, convenient, and safe in patients with advanced pancreatic cancer.

A randomized controlled trial of gemcitabine plus cisplatin versus gemcitabine alone
http://www.ncbi.nlm.nih.gov/pubmed/23912692

- Journal: *Cancer Chemotherapy and Pharmacology*
- Institution(s): Taipei Veterans General Hospital, Taipei, Taiwan and others
- Corresponding author(s): Chung-Pin Li
- Major finding: Gemcitabine alone and gemcitabine plus cisplatin (G + C) had comparable and modest response rates in metastatic pancreatic cancer, but gemcitabine alone produced less toxicities than did G + C.

Phase I dose escalation study of PKCι inhibitor aurothiomalate for advanced pancreatic, other cancers
http://www.ncbi.nlm.nih.gov/pubmed/23962904

- Journal: *Anti-Cancer Drugs*
- Institution(s): Mayo Clinic, Rochester, MN and others
- Corresponding author(s): Julian Molina
- Major finding: This phase I study was successful in identifying the protein kinase C iota (PKCι) inhibitor aurothiomalate (ATM) 50 mg intramuscularly weekly as the maximum tolerated dose. Future clinical investigations targeting PKCι are currently in progress.

Stromal disrupting effects of nab-paclitaxel in pancreatic cancer
http://www.ncbi.nlm.nih.gov/pubmed/23907428

- Journal: *British Journal of Cancer*
- Institution(s): Centro Integral Oncológico Clara Campal (CIOCC), Madrid, Spain
- Corresponding author(s): Manuel Hidalgo
- Major finding: The authors' data suggest that nab-paclitaxel and gemcitabine decreases cancer-associated fibroblast (CAF) content inducing a marked alteration in cancer stroma that results in tumor softening. This regimen should be studied in patients with operable pancreatic ductal adenocarcinoma.

The winning FORMULA-tion: the development of paclitaxel in pancreatic cancer
http://www.ncbi.nlm.nih.gov/pubmed/23918602

- Journal: *Clinical Cancer Research*
- Institution(s): Roswell Park Cancer Institute, Buffalo, NY and others
- Corresponding author(s): Wen Wee Ma
- Major finding: In the era of biological and molecularly-targeted agents, the success of nab-paclitaxel in the recalcitrant pancreatic cancer is a timely reminder of the importance and relevance of pharmacology and novel drug delivery technology in the development of anti-cancer drugs.

Gemcitabine adjuvant therapy for resected pancreatic cancer: A meta-analysis
http://www.ncbi.nlm.nih.gov/pubmed/23934134

- Journal: *American Journal of Clinical Oncology*
- Institution(s): Sun Yat-Sen University, Guangzhou, China
- Corresponding author(s): Yu-Hong Yuan
- Major finding: The results indicate that gemcitabine prolongs overall survival compared with other treatments after the resection of pancreatic cancer.

Splenic vein thrombosis is associated with pancreas-specific complications and reduced survival
http://www.ncbi.nlm.nih.gov/pubmed/23797883

- Journal: *Journal of Gastrointestinal Surgery*
- Institution(s): Thomas Jefferson University, Philadelphia, PA
- Corresponding author(s): Harish Lavu
- Major finding: Distal pancreatectomy and splenectomy (DPS) for pancreatic ductal adenocarcinoma can be performed safely in patients with splenic vein thrombosis, but with higher intraoperative blood loss, increased pancreas-specific complications, and a trend towards lower long-term survival rates. This paper was presented as a poster at the 53rd annual meeting of the Society for Surgery of the Alimentary Tract and at the 46th annual meeting of the Pancreas Club, San Diego, CA, May 2012.

Pancreaticoduodenectomy combined with vascular resection and reconstruction
http://www.ncbi.nlm.nih.gov/pubmed/23936411

- Journal: *PLoS One*
- Institution(s): Third Military Medical University, Chongqing, P. R. China and others
- Corresponding author(s): Huaizhi Wang
- Major finding: Compared with pancreaticoduodenectomy (PD) without vascular resection, PD combined with vascular resection and reconstruction increased the incidence of postoperative complications. However, PD combined with vascular resection and reconstruction could achieve the complete removal of tumors without significantly increasing the mortality rate, and the median survival time was higher than that of patients who underwent palliative treatment. In addition, the two independent factors affecting the postoperative survival time were the degree of tumor differentiation and the presence or absence of postoperative complications.

Influence of preoperative anti-cancer therapy on resectability and perioperative outcomes
http://www.ncbi.nlm.nih.gov/pubmed/23913634

- Journal: *Journal of Hepato-Biliary-Pancreatic Sciences*
- Institution(s): Tohoku University Graduate School of Medicine, Sendai, Japan and others
- Corresponding author(s): Michiaki Unno
- Major finding: Neoadjuvant therapy may not increase the mortality and morbidity rate and may be able to increase the chance for curative resection against resectable tumor.

Pancreatic cancer in the remnant pancreas following primary pancreatic resection
http://www.ncbi.nlm.nih.gov/pubmed/23975591

- Journal: *Surgery Today*
- Institution(s): Kumamoto University Graduate School of Medical Sciences, Kumamoto, Japan
- Corresponding author(s): Hideo Baba

- Major finding: The authors' results suggest that both local recurrence and a new primary cancer can develop in the pancreatic remnant, and repeated pancreatectomy can prolong survival.

Margin status, recurrence pattern, and prognosis after resection of pancreatic cancer
http://www.ncbi.nlm.nih.gov/pubmed/23973112

- Journal: *Surgery*
- Institution(s): Shizuoka Cancer Center, Shizuoka, Japan
- Corresponding author(s): Teiichi Sugiura
- Major finding: In the setting of pancreatectomy, when the authors evaluated the definitions of R0 resection, the margin status influenced the local recurrence rate but had no impact on the patients' survival.

Do hENT1 and RRM1 predict the clinical benefit of gemcitabine in pancreatic cancer?
http://www.ncbi.nlm.nih.gov/pubmed/23905902

- Journal: *Biomarkers in Medicine*
- Institution(s): University of Lyon, Lyon, France
- Corresponding author(s): Lars Petter Jordheim
- Major finding: The authors have analyzed the majority of studies of hENT1 and RRM1 on pancreatic cancer, and will discuss the further directions that might be followed in order to integrate these proteins in routine clinical practice. The data that is currently available would benefit from the completion of well-designed randomized trials in order to confirm the clinical value of hENT1 and RRM1 as biomarkers in pancreatic cancer patients.

Mechanism of MEK inhibition determines efficacy in mutant KRAS- versus BRAF-driven cancers
http://www.ncbi.nlm.nih.gov/pubmed/23934108

- Journal: *Nature*
- Institution(s): Genentech, Inc., South San Francisco, CA and others
- Corresponding author(s): Marcia Belvin and Georgia Hatzivassiliou
- Major finding: The authors' study highlights that differences in the activation state of MEK in KRAS-mutant tumors versus BRAF-mutant tumors can be exploited through the design of inhibitors that uniquely target these distinct activation states of MEK. These inhibitors are currently being evaluated in clinical trials to determine whether improvements in therapeutic index within KRAS versus BRAF preclinical models translate to improved clinical responses in patients.

Clinical and molecular characterization of HER2 amplified pancreatic cancer
http://www.ncbi.nlm.nih.gov/pubmed/24004612

- Journal: *Genome Medicine*
- Institution(s): Kinghorn Cancer Centre and Garvan Institute of Medical Research, Darlinghurst, Sydney, Australia and others
- Corresponding author(s): Andrew Biankin
- Major finding: HER2 amplification occurs in 2% of pancreatic ductal adenocarcinoma (PDAC) and has distinct features with implications for clinical practice. The molecular heterogeneity of PDAC implies that even an incidence of 2% represents an attractive target for anti-HER2 therapies, as options for PDAC are limited. Recruiting patients based on HER2 amplification, rather than organ of origin, could make trials of anti-HER2 therapies feasible in less common cancer types.

Guggulsterone decreases proliferation and metastatic behavior by JAK/STAT and Src/FAK signaling
http://www.ncbi.nlm.nih.gov/pubmed/23920124

- Journal: *Cancer Letters*
- Institution(s): University of Nebraska Medical Center, Omaha, NE
- Corresponding author(s): Maneesh Jain
- Major finding: The authors studied the effect of the plant steroid guggulsterone (GS) on pancreatic cancer cell growth, motility and invasion and elucidated the molecular mechanisms associated with its anti-tumor effects. Their results support the utility of GS as a potential therapeutic agent for lethal pancreatic cancer.

PARP-1 regulates resistance of pancreatic cancer to TRAIL therapy
http://www.ncbi.nlm.nih.gov/pubmed/23833311

- Journal: *Clinical Cancer Research*
- Institution(s): University of Alabama at Birmingham, Birmingham, AL
- Corresponding author(s): Yabing Chen
- Major finding: The authors' studies provide molecular insights into a novel function of PARP-1 in regulating the extrinsic apoptosis machinery and also support interventions combining PARP-1 inhibitors with death receptor (DR) agonists for pancreatic cancer therapy.

Preclinical evaluation of herpes simplex virus with granulocyte-macrophage colony-stimulating factor
http://www.ncbi.nlm.nih.gov/pubmed/23964149

- Journal: *World Journal of Gastroenterology*
- Institution(s): Peking Union Medical College, Beijing, China
- Corresponding author(s): Yan-Tao Tian
- Major finding: The authors' study provides the first evidence that oncolytic-herpes-simplex-virus encoding granulocyte-macrophage colony-stimulating factor ($HSV^{GM\text{-}CSF}$) could inhibit the growth of pancreatic cancer. The enhanced GM-CSF expression might be responsible for the phenomenon.

A novel epidermal growth factor receptor-signaling platform, targeted translation in pancreatic cancer
http://www.ncbi.nlm.nih.gov/pubmed/23993964

- Journal: *Cellular Signalling*
- Institution(s): Queen's University, Kingston, ON, Canada
- Corresponding author(s): Myron Szewczuk
- Major finding: Therapeutic targeting Neu1 with Tamiflu impedes pancreatic tumor growth and spread. Neu1 sialidase is a novel cancer-targeting enzyme with promising therapeutic outcomes.

Phase II study: pazopanib monotherapy in metastatic gastroenteropancreatic neuroendocrine tumour
http://www.ncbi.nlm.nih.gov/pubmed/23989950

- Journal: *British Journal of Cancer*
- Institution(s): Sungkyunkwan University School of Medicine, Seoul, Korea and others
- Corresponding author(s): Y.S. Park
- Major finding: Pazopanib (a multitarget drug with anti-angiogenic activity) showed a comparable efficacy to other targeted agents not only in pancreatic neuroendocrine tumors (NETs) but also in NETs originating from gastrointestinal (GI) tract.

OncoGenex announces that Rainier™ clinical trial evaluating apatorsen (OGX-427) with ABRAXANE®
http://ir.oncogenex.com/releasedetail.cfm?ReleaseID=787283

- Company: OncoGenex Pharmaceuticals, Inc., Bothell, WA and Vancouver, BC
- Major finding: OncoGenex Pharmaceuticals, Inc. announced initiation of the Rainier™ clinical trial, an investigator-sponsored, randomized, placebo-controlled Phase 2 trial evaluating apatorsen (OGX-427) in combination with ABRAXANE® (paclitaxel protein-bound particles for injectable suspension)(albumin-bound) and gemcitabine in patients with previously untreated metastatic pancreatic cancer. Apatorsen (OGX-427) is a once-weekly intravenous (IV) experimental drug that is designed to inhibit production of heat shock protein 27 (Hsp27) to disable cancer cells' defenses and overcome treatment resistance. Note that Andrew Ko, MD (2003 Career Development Award) is quoted in the article as a co-principal investigator of the study.

Incyte provides top-line results from Phase II proof-of-concept trial of ruxolitinib
http://investor.incyte.com/phoenix.zhtml?c=69764&p=irol-newsArticle&ID=1848898&highlight=

- Company: Incyte Corporation, Wilmington, DE
- Major finding: Incyte Corporation announced top-line results of the Phase II, randomized, double-blind, placebo-controlled RECAP trial of ruxolitinib, its oral JAK1 and JAK2 inhibitor, in combination with capecitabine in patients with recurrent or treatment refractory metastatic pancreatic cancer. The hazard ratio (HR) for overall survival (OS) in the intent to treat population was 0.79, and in a pre-specified subgroup analysis conducted in patients identified prospectively as most likely to benefit from JAK pathway inhibition, the HR for OS was 0.47. Full results of the RECAP trial are expected to be presented at a future scientific meeting.

Merrimack reaches patient enrollment goal in the Phase 3 NAPOLI-1 study of MM-398
http://investors.merrimackpharma.com/releasedetail.cfm?ReleaseID=787582

- Company: Merrimack Pharmaceuticals, Inc., Cambridge, MA
- Major finding: Merrimack Pharmaceuticals, Inc. announced that the enrollment goal has been reached in the NAPOLI-1 trial. NAPOLI-1 is a randomized Phase 3 study of MM-398, with or without 5-fluorouracil (5-FU) and leucovorin (LV), versus 5-FU and LV, in patients with metastatic pancreatic cancer previously treated with gemcitabine-based therapy. MM-398 is a novel nanoliposomal encapsulation of irinotecan sucrosofate.

CANCER CONTROL, SURVIVORSHIP, AND OUTCOMES RESEARCH

Cachexia in patients with chronic pancreatitis and pancreatic cancer: impact on survival and outcome
http://www.ncbi.nlm.nih.gov/pubmed/23909726

- Journal: *Nutrition and Cancer*
- Institution(s): Technische Universität München, Munich, Germany
- Corresponding author(s): Marc E. Martignoni
- Major finding: Cachexia had a significant impact on survival and the postoperative course in patients with pancreatic ductal adenocarcinoma and tumor resection. The development of cachexia is faster in patients with a malignant disease and the systemic effects are more pronounced. Therefore, tumor cachexia should be considered as a different entity than cachexia in benign diseases.