PANCREATIC CANCER NEWS & UPDATES – JULY 2013

PANCREATIC CANCER ACTION NETWORK AND COMMUNITY NEWS

Pancreatic Cancer Action Network news:

Seven-year pancreatic cancer survivor named Chair of the National Board of Directors

http://pancan.org/section_about/news_press_center/2013_press_releases/07_09_13_pr.php#.UgkbjJK1F8E

The Pancreatic Cancer Action Network is pleased to announce Laurie MacCaskill has been appointed Chair of the National Board of Directors of the organization, effective July 1. MacCaskill is the first pancreatic cancer patient to hold this position. She has defied the odds in her fight against pancreatic cancer, which has a five year survival rate of just six percent. Since her diagnosis in 2006, MacCaskill has served as a tireless volunteer and advocate for the Pancreatic Cancer Action Network, and has funded two research grants.

Important role for researchers and healthcare professionals at Advocacy Day 2013

http://www.pancan.org/section_about/pancreas_matters_articles/july/researchers-ad2013-july-2013.php#.UecmlY21F8E

Among the hundreds of participants at the Pancreatic Cancer Action Network's Seventh Annual Advocacy Day were 15 scientists and healthcare professionals, representing 11 states across the country. Current and former research grant recipients, members of our Scientific and Medical Advisory Boards and other researchers passionate about the disease and our cause were in attendance.

Funding opportunities:

New! **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

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. The application deadline is Oct. 18, 2013.

New! **Lurie Prize in the Biomedical Sciences**

http://www.fnih.org/content/lurie-prize-biomedical-sciences

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. The deadline for nominations is October 1, 2013, 1:00 PM Eastern Daylight Time. The prize amount is $100,000.

ASCO's community survey on cuts to research funding and federally funded research
https://www.surveymonkey.com/s/QTHQKD3
ASCO is engaged in advocacy work to maintain our nation's federal support for research. ASCO needs your assistance to articulate the impact of these cuts on federally supported cancer research. Your involvement is critical to describe the impact on patients and advancement of new cancer treatments, as well as the effect on the investigator workforce and research infrastructure. Thank you for taking 7-10 minutes to answer this 11-question survey and help us work on behalf of cancer patients, investigators, and clinicians. The survey is open until Sunday, August 18.

Clinical Assay Development Program (CADP)
http://cadp.cancer.gov/
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. Remaining 2013 application deadline: October 15.

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! **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.

Save the date: 2013 Gigi Shaw Arledge Conference on Pancreatic Disease
http://pancreasmd.org/pdf/event_pancreatic_disease_flyer_20130909.pdf

- Monday, September 9, 2013, 8:00am–7:00pm, NewYork-Presbyterian/Columbia University Medical Center
- This event is co-chaired by Ken Olive, PhD (2011 Tempur-Pedics Retailers – Career Development Award) and Tim Wang, MD (2013 Innovative Grant). The keynote speaker is Ralph Hruban, MD (Emeritus Scientific Advisory Board), and other speakers include many other Pancreatic Cancer Action Network research grant recipients and Scientific Advisory Board members.

The best of Digestive Disease Week 2013: Part 1
http://www.gastroendonews.com/ViewArticle.aspx?d=In%2Bthe%2BNews&d_id=187&i=July+2013&i_id=975&a_id=23606
Gastroenterology & Endoscopy News asked three experts: What were your favorite abstracts presented at this year's Digestive Disease Week meeting? Following is a collection of selected abstracts and comments on the meeting as provided by three experts in the field.

Other community news:

The science of pancreatic cancer advances
http://www.huffingtonpost.com/david-tuveson-md-phd/the-science-of-pancreatic_b_3618810.html
David Tuveson, MD, PhD, recipient of a 2003 Career Development Award and Pancreatic Cancer Action Network Emeritus Scientific Advisory Board member contributed a *Huffington Post* blog. Dr. Tuveson writes, "We now understand why pancreatic cancer occurs, why it's hard to detect, and why it's hard to treat. With that understanding, we are at a turning point in fighting the disease and are well-positioned to change its outcome."

Serve on the AACR Associate Member Council
http://www.aacr.org/home/scientists/associate-member-council.aspx
Application deadline is Wednesday, August 28, 2013. Since its inception in 1996, the Associate Member Council has served as the leadership body of the associate members of the AACR -- more than 13,000 graduate students, medical students and residents, and clinical and postdoctoral fellows who are enrolled in educational or training programs leading to careers in cancer research. The members of the council, who serve three-year terms, develop programs that address the particular needs of early-career scientists. Additionally, the council acts as an advisory body to the AACR leadership on issues of concern to the next generation of cancer researchers.

New developments that could change the face of cancer forever
http://www.katiecouric.com/videos/new-cancer-treatments/
Pancreatic Cancer Action Network Scientific Advisory Board member Craig Thompson, MD is interviewed by Katie Couric. Dr. Thompson discusses promising treatment and diagnostic updates of several cancer types, immunotherapy, targeted therapy, and hope for the future of cancer medicine.

Cancer and chemotherapy linked with decreased risk of Alzheimer's disease in veterans
https://www.alz.org/aaic/_releases_2013/mon_830am_cancer_chemo.asp
Most kinds of cancer are associated with a significantly decreased risk of Alzheimer's disease, according to a study of 3.5 million veterans reported today at the Alzheimer's Association International Conference® 2013 (AAIC® 2013) in Boston. In addition, the study suggested that chemotherapy treatment for almost all of those cancers conferred an additional decrease in Alzheimer's risk. Reduced

risk was greatest among survivors of liver cancer (51 percent lower risk), cancer of the pancreas (44 percent), cancer of the esophagus (33 percent), myeloma (26 percent), lung cancer (25 percent) and leukemia (23 percent).

Mitchell Stoller appointed as executive director of AACR Foundation
http://www.aacr.org/home/public--media/aacr-in-the-news.aspx?d=3135
The American Association for Cancer Research (AACR) is pleased to announce the appointment of Mitchell R. Stoller as executive director of the AACR Foundation for the Prevention and Cure of Cancer. In his role, Stoller will lead strategy and work closely with the AACR Foundation Board of Trustees to manage the development and expansion of fundraising and program activities for the foundation.

BIOLOGY OF CANCER

Numb regulates acinar cell dedifferentiation, survival during pancreatic damage and ADM
http://www.ncbi.nlm.nih.gov/pubmed/23891977

- Journal: *Gastroenterology*
- Institution(s): University of California, San Francisco, San Francisco, CA
- Corresponding author(s): Matthias Hebrok
- Pancreatic Cancer Action Network-affiliated author: Matthias Hebrok, PhD: 2011 Abby Sobrato – Innovative Grant and 2008 Michael C. Sandler – Pilot Grant
- Major finding: Numb is an important regulator of acinar cell differentiation and viability during metaplasia. In mice with pancreatitis or pancreatic injury, elimination of Numb causes dedifferentiated acinar cells to undergo apoptosis—a process that is not mitigated by oncogenic Kras.

A novel epigenetic CREB-miR-373 axis mediates ZIP4-induced pancreatic cancer growth
http://www.ncbi.nlm.nih.gov/pubmed/23857777

- Journal: *EMBO Molecular Medicine*
- Institution(s): Baylor College of Medicine, Houston, TX and others
- Corresponding author(s): Min Li
- Pancreatic Cancer Action Network-affiliated author: Martin Fernandez-Zapico, MD: 2007 Carole and Bob Daly – Career Development Award
- Major finding: The authors' results define a novel ZIP4-CREB-miR-373 signaling axis promoting pancreatic cancer growth, providing mechanistic insights explaining in part how a zinc transporter functions in cancer cells and may have broader implications as inappropriate regulation of intracellular zinc levels plays an important role in many other diseases.

Deciphering the role of stroma in pancreatic cancer
http://www.ncbi.nlm.nih.gov/pubmed/23892539

- Journal: *Current Opinion in Gastroenterology*
- Institution(s): University of Michigan Medical Center, Ann Arbor, MI
- Corresponding author(s): Diane Simeone
- Pancreatic Cancer Action Network-affiliated authors:
    - Marina Pasca di Magliano, PhD: 2009 Paul Mitchell – Career Development Award
    - Diane Simeone, MD: 2010 The Randy Pausch Family – Innovative Grant and member, Scientific Advisory Board

- Major finding: This review intends to describe recent studies on pancreatic tumor-associated stroma and potential opportunities and limitations to its targeting. Recent studies have shed new light on the contribution of the pancreatic cancer fibroinflammatory stroma to pancreatic cancer biology. Additional studies are needed to better define its full contribution to tumor behavior and how to best understand the optimal ways to develop therapies that counteract its pro-neoplastic properties.

Cooperation among Numb, MDM2 and p53 in the development and progression of pancreatic cancer
http://www.ncbi.nlm.nih.gov/pubmed/23881403

- Journal: *Cell and Tissue Research*
- Institution(s): China Medical University, Shenyang, China
- Corresponding author(s): Ming Dong
- Major finding: The authors' study is the first to demonstrate the clinical significance and functional cooperation among Numb, MDM2 and p53 involved in the development and progression of PC.

Functions of TAp63 and p53 in restraining the development of metastatic cancer
http://www.ncbi.nlm.nih.gov/pubmed/23873029

- Journal: *Oncogene*
- Institution(s): Cancer Research UK Beatson Institute, Glasgow, UK
- Corresponding author(s): Patricia Muller
- Major finding: To investigate whether simultaneous depletion of both p53 and TAp63 can recapitulate the effect of mutant p53 expression in vivo, the authors used a mouse model of pancreatic cancer in which the expression of mutant p53 resulted in the rapid appearance of primary tumors and metastases. The authors' data suggest that depletion of TAp63 in a p53-null tumor can promote metastasis and recapitulate - to some extent - the consequences of mutant p53 expression.

The CX3CL1/CX3CR1 reprogrammes glucose metabolism through HIF-1 pathway
http://www.ncbi.nlm.nih.gov/pubmed/23857671

- Journal: *Journal of Cellular Biology*
- Institution(s): Tianjin Medical University Cancer Institute and Hospital, Tianjin, China
- Corresponding author(s): Jihui Hao
- Major finding: The CX3CL1/CX3CR1 reprograms glucose metabolism through HIF-1 pathway in pancreatic cancer cells.

Activated pancreatic stellate cells sequester CD8+ T-cells to reduce infiltration of juxtatumoral
http://www.ncbi.nlm.nih.gov/pubmed/23891972

- Journal: *Gastroenterology*
- Institution(s): Queen Mary University of London, London, UK
- Corresponding author(s): Hemant Kocher
- Major finding: Based on studies of human pancreatic ductal adenocarcinoma samples and KPC mice, activated pancreatic stellate cells (PSCs) appear to reduce migration of CD8+ T-cells to juxtatumoral stromal compartments, preventing their access to cancer cells. Deregulated signaling by activated PSCs could prevent an effective anti-tumor immune response.

Changes in the immune cell population and cell proliferation in peripheral blood after gemcitabine
http://www.ncbi.nlm.nih.gov/pubmed/23860726

- Journal: *Clinical and Translational Oncology*
- Institution(s): Yokohama City University School of Medicine, Yokahama, Kanagawa, Japan
- Corresponding author(s): Itaru Endo
- Major finding: This study showed that gemcitabine-based chemotherapy produced an immunomodulatory effect via the depletion of regulatory T cells.

Reg3β deficiency impairs pancreatic tumor growth by skewing macrophage polarization
http://www.ncbi.nlm.nih.gov/pubmed/23867474

- Journal: *Cancer Research*
- Institution(s): Hospital Clínic of Barcelona/CIBERehd, Barcelona, Spain
- Corresponding author(s): Emma Folch-Puy
- Major finding: The authors' studies reveal a novel role for the lectin Reg3β as a tumor promoter in pancreatic adenocarcinoma through the regulation of tumor stroma. Thus, inhibition of this protein may be a useful strategy in treatment of pancreatic cancer.

Targeting cancer-related inflammation: Chinese herbal medicine inhibits EMT in pancreatic cancer
http://www.ncbi.nlm.nih.gov/pubmed/23922983

- Journal: *PLoS One*
- Institution(s): Fudan University Shanghai Cancer Center, Shanghai, China and others
- Corresponding author(s): Chunzheng Ma and Luming Liu
- Major finding: The authors' previous studies have shown that Qingyihuaji Formula (QYHJ), a seven-herb Chinese medicine formula, had significant anti-cancer effects in pancreatic cancer. These results suggested that the Chinese herbal medicine QYHJ could inhibit pancreatic cancer cell invasion and metastasis in part by reversing tumor-supporting inflammation.

The immune network in pancreatic cancer development and progression
http://www.ncbi.nlm.nih.gov/pubmed/23851493

- Journal: *Oncogene*
- Institution(s): Technische Universität München, Munich, Germany
- Corresponding author(s): Hana Algül
- Major finding: Only recently, the immune system has entered the pathophysiology of pancreatic ductal adenocarcinoma development. Tumor cells in the pancreas seem to dysbalance the immune system, thus facilitating spontaneous cancer development. This review will try to assemble all relevant data to demonstrate the implications of the immune network on spontaneous cancer development.

Inflammatory cytokines in human pancreatic cancer
http://www.ncbi.nlm.nih.gov/pubmed/23879960

- Journal: *Cancer Letters*
- Institution(s): Queen Mary, University of London, London, UK
- Corresponding author(s): Rozita Roshani and Thorsten Hagemann
- Major finding: In this review the authors provide an overview of current understanding of pro- and anti-inflammatory cytokines in pancreatic cancer and their potential as therapeutic targets.

Biological features of PanIN initiated from oncogenic Kras mutation in genetically engineered mice
http://www.ncbi.nlm.nih.gov/pubmed/23887057

- Journal: *Cancer Letters*
- Institution(s): Shanghai Jiao Tong University, School of Medicine, Shanghai, China
- Corresponding author(s): Lifu Wang
- Major finding: Taken together, KrasG12D - driven pancreatic intraepithelial neoplasms (PanIN) showed the tumorigenic ability, however, did not undergo a malignant transformation. Decreased expression of protein phosphatase 2, regulatory subunit B, alpha (PPP2R2A) in pancreatic ductal adenocarcinomas may provide a new target for pancreatic carcinoma intervention.

Calorie restriction delays progression of lesions in LSL-KrasG12D; Pdx-1/Cre mouse model
http://www.ncbi.nlm.nih.gov/pubmed/23828595

- Journal: *Experimental Biology and Medicine*
- Institution(s): Thomas Jefferson University, Philadelphia, PA
- Corresponding author(s): Susan Lanza-Jacoby
- Major finding: This is the first study to show in LSL-KrasG12D; Pdx-1/Cre mice that intermittently calorie restricted (ICR) and chronically calorie restricted (CCR) delay the progression of lesions to pancreatic ductal adenocarcinoma.

Lamin B1 is a novel therapeutic target of betulinic acid in pancreatic cancer
http://www.ncbi.nlm.nih.gov/pubmed/23857605

- Journal: *Clinical Cancer Research*
- Institution(s): MD Anderson Cancer Center, Houston, TX and others
- Corresponding author(s): Keping Xie
- Major finding: Betulinic acid (BA), a naturally occurring pentacyclic triterpenoid, exhibits potent anti-tumor activities, whereas the underlying mechanisms remain unclear. Lamin B1 plays an important role in pancreatic cancer pathogenesis and is a novel therapeutic target of BA treatment.

Structure-activity relationship of withanolides to inhibit Hsp90 for activity in pancreatic cancer cells
http://www.ncbi.nlm.nih.gov/pubmed/23887853

- Journal: *Investigational New Drugs*
- Institution(s): University of Michigan, Ann Arbor, MI and others
- Corresponding author(s): Duxin Sun
- Major finding: Withaferin A (WA), a naturally occurring steroidal lactone, directly binds to Hsp90 and leads to the degradation of Hsp90 client protein. The purpose of this study is to investigate the structure activity relationship (SAR) of withanolides for their inhibition of Hsp90 and anti-proliferative activities in pancreatic cancer cells. The SAR data provide possible mechanisms of anti-proliferative action of withanolides.

Reolysin is a novel reovirus-based agent that induces endoplasmic reticular stress-mediated apoptosis
http://www.ncbi.nlm.nih.gov/pubmed/23868061

- Journal: *Cell Death & Disease*
- Institution(s): University of Texas Health Science Center at San Antonio, San Antonio, TX and others

- Corresponding author(s): Stefan Nawrocki
- Major finding: The ability of reoviruses to preferentially replicate and induce cell death in transformed cells that express activated Ras prompted the development of a reovirus-based formulation for cancer therapy called Reolysin. The authors' collective results demonstrate that the abnormal protein accumulation induced by the combination of Reolysin and bortezomib (BZ) promotes heightened endoplasmic reticular (ER) stress and apoptosis in pancreatic cancer cells and provides the rationale for a phase I clinical trial further investigating the safety and efficacy of this novel strategy.

Claudin 18.2 is a target for IMAB362 antibody in pancreatic neoplasms
http://www.ncbi.nlm.nih.gov/pubmed/23900716

- Journal: *International Journal of Cancer*
- Institution(s): Ganymed Pharmaceuticals AG, Mainz, Germany and others
- Corresponding author(s): Özlem Türeci
- Major finding: The rate of CLDN18.2 positivity is high in pancreatic neoplasms whereby the expression is not limited to the primaries but is also maintained upon metastasis. Thus a considerable number of patients with pancreatic neoplasms would be in principle eligible for a CLDN18.2-ta29rgeting approach.

Inactivating mutations of *RNF43* confer Wnt dependency in pancreatic ductal adenocarcinoma
http://www.ncbi.nlm.nih.gov/pubmed/23847203

- Journal: *Proceedings of the National Academy of Sciences*
- Institution(s): Novartis Institutes for Biomedical Research, Cambridge, MA and others
- Corresponding author(s): Feng Cong
- Major finding: The authors' data suggest that mutational inactivation of *RNF43* in pancreatic adenocarcinoma confers Wnt dependency, and the presence of *RNF43* mutations could be used as a predictive biomarker for patient selection supporting the clinical development of Wnt inhibitors in subtypes of cancer.

Basic research: Wnt signalling required for pancreatic carcinogenesis
http://www.ncbi.nlm.nih.gov/pubmed/23820642

- Journal: *Nature Reviews Clinical Oncology*
- Institution(s): [no authors listed]
- Corresponding author(s): [no authors listed]
- Major finding: Although signaling through the Wnt/β-catenin pathway is associated with pancreatic ductal adenocarcinoma, only now has this pathway been shown to be critical for tumorigenesis. This was shown through experiments on β-catenin-null acinar cells, which could not undergo metaplastic transformation to ductal cells—a process central to the development of premalignant lesions.

Mucins in pancreatic cancer and its microenvironment
http://www.ncbi.nlm.nih.gov/pubmed/23856888

- Journal: *Nature Reviews Gastroenterology & Hepatology*
- Institution(s): Nebraska Medical Centre, Omaha, NE
- Corresponding author(s): Surinder Batra

- Major finding: This Review discusses: the expression pattern of various mucins in the pancreas under healthy, inflammatory, and cancerous conditions; the context-dependent attributes of mucins that differ under healthy and pathological conditions; the contribution of the tumor microenvironment in pancreatic cancer development and/or progression; diagnostic and/or prognostic efficacy of mucins; and mucin-based therapeutic strategies. Overall, this information should help to delineate the intricacies of pancreatic cancer by exploring the family of mucins, which, through various mechanisms in both tumor cells and the microenvironment, worsen disease outcome.

Current understanding of the molecular biology of pancreatic neuroendocrine tumors
http://www.ncbi.nlm.nih.gov/pubmed/23840053

- Journal: *Journal of the National Cancer Institute*
- Institution(s): Roswell Park Cancer Institute, Buffalo, NY and others
- Corresponding author(s): Steven Hochwald
- Major finding: Further advances in our understanding of the molecular mechanisms of pancreatic neuroendocrine tumors and improved preclinical models will assist in developing personalized therapy utilizing novel drugs to provide prolonged control or even cure the disease.

ETIOLOGY

Allergies and risk of pancreatic cancer: A pooled analysis
http://www.ncbi.nlm.nih.gov/pubmed/23820785

- Journal: *American Journal of Epidemiology*
- Institution(s): Memorial Sloan-Kettering Cancer Center, New York, NY and others
- Corresponding author(s): Sara Olson
- Pancreatic Cancer Action Network-affiliated author: Gloria Petersen, PhD: member, Scientific Advisory Board
- Major finding: In order to quantify the risk of pancreatic cancer associated with history of any allergy and specific allergies, to investigate differences in the association with risk according to age, gender, smoking status, or body mass index, and to study the influence of age at onset, the authors pooled data from 10 case-control studies. There were no major differences among subgroups defined by age, gender, smoking status, or body mass index. Older age at onset of allergies was slightly more protective than earlier age.

FDA sides with EMA on incretin diabetes drugs
http://www.medscape.com/viewarticle/808830
The US Food and Drug Administration (FDA) agrees with the European Medicines Agency (EMA) that available data do not confirm recent concerns over an increased risk for pancreatic side effects with glucagonlike peptide-1 (GLP-1)-based diabetes therapies.

Investigation into GLP-1 based diabetes therapies concluded
http://www.ema.europa.eu/ema/index.jsp?curl=pages/news_and_events/news/2013/07/news_detail_001856.jsp&mid=WC0b01ac058004d5c1
The European Medicines Agency's Committee for Medicinal Products for Human Use (CHMP) has finalized a review of GLP-1-based diabetes therapies. The Committee concluded that presently available data do not confirm recent concerns over an increased risk of pancreatic adverse events with these medicines.

Report of Japan Diabetes Society/Japanese Cancer Association joint committee on diabetes, cancer
http://www.ncbi.nlm.nih.gov/pubmed/23879470

- Journal: *Cancer Science*
- Institution(s): National Center for Global Health and Medicine, Tokyo, Japan and others
- Corresponding author(s): Kohzoh Imai
- Major finding: In recent years, diabetes has been shown to be associated with cancer risk, and this has led to a joint committee being formed, enlisting experts from the Japan Diabetes Society and the Japanese Cancer Association to address this issue. There is as yet limited evidence as to whether any particular antidiabetic agents may influence cancer risk.

Hyperglycemia, insulin resistance, impaired pancreatic β-cell function, and risk of pancreatic cancer
http://www.ncbi.nlm.nih.gov/pubmed/23847240

- Journal: *Journal of the National Cancer Institute*
- Institution(s): Brigham and Women's Hospital, Boston, MA and others
- Corresponding author(s): Brian Wolpin
- Major finding: Among participants from five large prospective cohorts, circulating markers of peripheral insulin resistance, rather than hyperglycemia or pancreatic β-cell dysfunction, were independently associated with pancreatic cancer risk.

Association between variations in the fat mass and obesity-associated gene and pancreatic cancer risk
http://www.ncbi.nlm.nih.gov/pubmed/23835106

- Journal: *BMC Cancer*
- Institution(s): Aichi Medical University School of Medicine, Nagakute, Aichi, Japan and others
- Corresponding author(s): Shogo Kikuchi
- Major finding: The authors' findings indicate that rs9939609 in the fat mass and obesity-associated (FTO) gene is associated with pancreatic cancer risk in Japanese subjects, possibly through a mechanism that is independent of obesity. Further investigation and replication of the authors' results is required in other independent samples.

Family history of cancer and the risk of cancer: a network of case-control studies
http://www.ncbi.nlm.nih.gov/pubmed/23884440

- Journal: *Annals of Oncology*
- Institution(s): IRCCS – Istituto di Ricerche Farmacologiche Mario Negri, Milan, Italy and others
- Corresponding author(s): Eva Negri
- Major finding: The authors' results point to several potential cancer syndromes that appear among close relatives and may indicate the presence of genetic factors influencing multiple cancer sites.

Hepatitis B virus status and the risk of pancreatic cancer: a meta-analysis
http://www.ncbi.nlm.nih.gov/pubmed/23165286

- Journal: *European Journal of Cancer Prevention*
- Institution(s): Huazhong University of Science and Technology, Wuhan, People's Republic of China
- Major finding: Inactive hepatitis B virus surface antigen (HBsAg) carrier status and possible occult HBV infection may increase the risk of pancreatic cancer. Large population-based multicenter prospective studies are required to further confirm this finding.

Hepatitis B or C viral infection and risk of pancreatic cancer: A meta-analysis of observational studies
http://www.ncbi.nlm.nih.gov/pubmed/23864789

- Journal: *World Journal of Gastroenterology*
- Institution(s): Southern Medical University, Guangdong Province, China and others
- Major finding: Chronic hepatitis B and C infection increases pancreatic cancer risk. The authors' findings underscore the need for more studies to confirm this potential relationship.

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

- Journal: *Carcinogenesis*
- Institution(s): Brown University, Providence, RI
- 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.

Dietary fat intake and risk of pancreatic cancer
http://www.ncbi.nlm.nih.gov/pubmed/23890797

- Journal: *Annals of Epidemiology*
- Institution(s): Yale University School of Public Health, New Haven, CT and others
- Corresponding author(s): Hannah Arem
- Major finding: The authors' results do not support the hypothesis of increased pancreatic cancer risk with higher fat consumption overall or by specific fat type or source. Dietary changes owing to undetected disease may explain the observed inverse association with saturated fat.

Dietary intake of acrylamide and pancreatic cancer risk in the EPIC cohort
http://www.ncbi.nlm.nih.gov/pubmed/23857962

- Journal: *Annals of Oncology*
- Institution(s): Catalan Institute of Oncology (ICO-IDIBELL), Barcelona, Spain and others
- Corresponding author(s): Eric Duell
- Major finding: Dietary intake of acrylamide was not associated with an increased risk of pancreatic cancer in the European Prospective Investigation into Cancer and Nutrition (EPIC) cohort.

Lack of association between occupational exposure to diesel exhaust and risk of pancreatic cancer
http://www.ncbi.nlm.nih.gov/pubmed/23851578

- Journal: *International Archives of Occupational and Environmental Health*
- Institution(s): Mount Sinai School of Medicine, New York, NY
- Corresponding author(s): Paolo Boffetta
- Major finding: The overall evidence from studies on occupational exposure to diesel exhaust and risk of pancreatic cancer leads to the conclusion of the absence of such association.

EARLY DETECTION, DIAGNOSIS, AND PROGNOSIS

Clinicopathological correlates of activating *GNAS* mutations in IPMN of the pancreas
http://www.ncbi.nlm.nih.gov/pubmed/23846778

- Journal: *Annals of Surgical Oncology*
- Institution(s): Johns Hopkins School of Medicine, Baltimore, MD and others
- Corresponding author(s): Anirban Maitra
- Pancreatic Cancer Action Network-affiliated authors:
    - Michael Goggins, MD: PI, 2013 Skip Viragh – Inaugural Research Acceleration Network Grant
    - James Eshleman, MD, PhD: 2011 Innovative Grant
    - Anirban Maitra, MBBS: 2004 Career Development Award and chair, Scientific Advisory Board
- Major finding: *GNAS* activating mutations can be reliably detected in Intraductal papillary mucinous neoplasms (IPMNs) by pyrosequencing. In terms of clinicopathological parameters, only histological subtype was correlated with mutational frequency, with the intestinal phenotype always associated with *GNAS* mutations.

Specific glycoforms of MUC5AC and endorepellin accurately distinguish mucinous from non-mucinous
http://www.ncbi.nlm.nih.gov/pubmed/23836919

- Journal: *Molecular & Cellular Proteomics*
- Institution(s): Van Andel Research Institute, Grand Rapids, MI and others
- Corresponding author(s): Brian Haab
- Pancreatic Cancer Action Network-affiliated author: Diane Simeone, MD: 2010 The Randy Pausch Family – Innovative Grant and member, Scientific Advisory Board
- Major finding: MUC5AC and endorepellin glycoforms may be highly specific and sensitive biomarkers for the differentiation of mucinous from non-mucinous pancreatic cysts.

Targeting cathepsin e in pancreatic cancer by a small molecule allows in vivo detection
http://www.ncbi.nlm.nih.gov/pubmed/23814481

- Journal: *Neoplasia*
- Institution(s): Massachusetts General Hospital, Boston, MA and others
- Corresponding author(s): Ralph Weissleder
- Pancreatic Cancer Action Network-affiliated authors:
    - Nabeel Bardeesy, PhD: 2008 Randy Pausch, PhD – Pilot Grant
    - Douglas Hanahan, PhD: 2007 Pilot Grant
- Major finding: On the basis of observations that cathepsin E (CTSE) is overexpressed in pancreatic ductal adenocarcinoma and that a United States Food and Drug Administration (FDA)-approved protease inhibitor has high affinity for CTSE, the authors have developed a CTSE optical imaging agent [ritonavir tetramethyl-BODIPY (RIT-TMB)] for potential intraoperative use. They show nanomolar affinity against CTSE of the RIT-TMB in biochemical assays and intracellular accumulation and target-to-background ratios that allow specific delineation of individual cancer cells. This approach should be useful for more refined surgical staging, planning, and resection with curative intent.

Role of pancreatic cancer-derived exosomes in salivary biomarker development
http://www.ncbi.nlm.nih.gov/pubmed/23880764

- Journal: *Journal of Biological Chemistry*
- Institution(s): University of California, Los Angeles, Los Angeles, CA
- Corresponding author(s): David Wong
- Pancreatic Cancer Action Network-affiliated author: James Farrell, MD: member, Medical Advisory Board
- Major finding: The authors examine the hypothesis that pancreatic tumor-derived exosomes are mechanistically involved in the development of pancreatic cancer-discriminatory salivary transcriptomic biomarkers. This study supports that tumor-derived exosomes provide a mechanism in the development of discriminatory biomarkers in saliva and distal systemic diseases.

KRAS mutational analysis, IHC can help distinguish pancreatic metastases from primary lung cancers
http://www.ncbi.nlm.nih.gov/pubmed/23887294

- Journal: *Modern Pathology*
- Institution(s): University of Pittsburgh Medical Center, Pittsburgh, PA
- Corresponding author(s): Sanja Dacic
- Major finding: The authors explored the potential utility of KRAS mutational status and immunohistochemical studies in the evaluation of adenocarcinomas in the lungs of patients with known pancreatic cancer. Differences in KRAS mutations reflect differences in exposure to tobacco smoking and highlight biological differences between two KRAS oncogene-driven cancers.

Clinical next-generation sequencing applied to fine-needle aspirations of pulmonary, pancreatic
http://www.ncbi.nlm.nih.gov/pubmed/23893923

- Journal: *Cancer Cytopathology*
- Institution(s): Foundation Medicine, Inc., Cambridge, MA and others
- Corresponding author(s): Jeffrey Ross
- Major finding: The authors were able to perform next-generation sequencing reliably on fine-needle aspirations of pulmonary and pancreatic tumors, and the genomic alterations discovered correlated well with those identified in matched resected pancreatic tumors.

MicroRNA from pancreatic duct aspirate differentiates cystic lesions of the pancreas
http://www.ncbi.nlm.nih.gov/pubmed/23884752

- Journal: *Annals of Surgical Oncology*
- Institution(s): Ohio State University Wexner Medical Center, Columbus, OH and others
- Corresponding author(s): Mark Bloomston
- Major finding: The presence of RNA in the duct aspirate from patients with pancreatic cystic neoplasms may be a predictor of premalignancy or malignancy. miRNA may be utilized to further differentiate between benign, premalignant, and malignant cystic lesions of the pancreas.

Differential expression of cytochrome P450 omega-hydroxylase isoforms, clinicopathological features
http://www.ncbi.nlm.nih.gov/pubmed/23846787

- Journal: *Annals of Surgical Oncology*
- Institution(s): Thomas Jefferson University, Philadelphia, PA
- Corresponding author(s): Hwyda Arafat
- Major finding: Transcriptional upregulation of cytochrome P450 ω-hydroxylase suggests that these enzymes have the potential to be used as distinguishing markers in pancreatic pathology.

Feasibility of newly developed endoscopic ultrasound with zone sonography technology
http://www.ncbi.nlm.nih.gov/pubmed/23898392

- Journal: *Gut and Liver*
- Institution(s): Nagoya University Hospital, Nagoya, Japan
- Corresponding author(s): Yoshiki Hirooka
- Major finding: Endoscopic ultrasound (EUS) with Zone sonography™ technology (ZST) was shown to be feasible in this preliminary experiment. Further evaluation of this novel technology is necessary and awaited.

PanIN in patients with IPMN: The interest of endoscopic ultrasonography
http://www.ncbi.nlm.nih.gov/pubmed/23899939

- Journal: *Pancreas*
- Institution(s): Hôpital Beaujon, Clichy, France and others
- Corresponding author(s): Philippe Ruszniewski
- Major finding: Pancreatic intraepithelial neoplasia (PanIN) lesions are very frequently associated with intraductal papillary mucinous neoplasm (IPMN), and 19% of patients with IPMN had PanIN-3 lesions. In two thirds of patients, endoscopic ultrasound can detect minimal changes in the pancreas corresponding to PanIN lesions.

Risk of gastric or peritoneal recurrence, long-term outcomes, following pancreatic cancer resection
http://www.ncbi.nlm.nih.gov/pubmed/23881804

- Journal: *Endoscopy*
- Institution(s): Mayo Clinic Florida, Jacksonville, FL and others
- Corresponding author(s): Michael Wallace
- Major finding: Pre-operative endoscopic ultrasound-guided fine-needle aspiration (EUS-FNA) was not associated with an increased rate of gastric or peritoneal cancer recurrence in patients with resected pancreatic cancer. Two patients had gastric wall recurrence following the procedure, but this may be explained by direct tumor extension. This suggests that EUS-FNA is not associated with an increased risk of needle track seeding.

Clinical impact of pentraxin family expression on prognosis of pancreatic carcinoma
http://www.ncbi.nlm.nih.gov/pubmed/23828517

- Journal: *British Journal of Cancer*
- Institution(s): National Cancer Center Hospital, Tsukiji Chuo-ku, Tokyo, Japan
- Corresponding author(s): Takuji Okusaka
- Major finding: Pentraxin family members, especially PTX3, may be used as promising biomarkers in the prognosis of pancreatic carcinoma patients.

A gene expression signature of epithelial tubulogenesis; ASPM in pancreatic tumor progression
http://www.ncbi.nlm.nih.gov/pubmed/23896173

- Journal: *Gastroenterology*
- Institution(s): National Health Research Institutes, Tainan, Taiwan and others
- Corresponding author(s): Kelvin K.-C. Tsai
- Major finding: The authors identified a gene expression profile associated with pancreatic epithelial tubulogenesis and a tissue architecture-specific signature of pancreatic ductal adenocarcinoma cells that is associated with patient outcome following surgery.

Notch1 contributes to chemoresistance to gemcitabine and serves as unfavorable prognostic indicator
http://www.ncbi.nlm.nih.gov/pubmed/23568245

- Journal: *World Journal of Surgery*
- Institution(s): Chinese Academy of Medical Sciences and Peking Union Medical College, Beijing, China
- Corresponding author(s): Yu-Pei Zhao
- Major finding: Notch1 contributes to chemoresistance to gemcitabine, and serves as a significant indicator of unfavorable prognosis in pancreatic cancer.

iTRAQ-based quantitative proteomics reveals myoferlin as a novel prognostic predictor in pancreatic
http://www.ncbi.nlm.nih.gov/pubmed/23851313

- Journal: *Journal of Proteomics*
- Institution(s): Soochow University, Suzhou, China and others
- Corresponding author(s): Xiao-Lin Wang
- Major finding: The authors used isobaric tags for relative and absolute quantitation (iTRAQ) coupled with two-dimensional liquid chromatography–tandem mass spectrometry to compare protein expression in pancreatic adenocarcinoma (PAC) tissues with different degrees of histological differentiation. ITRAQ-based quantitative proteomics revealed the prognostic value of myoferlin in PAC.

MAL2 expression predicts distant metastasis and short survival in pancreatic cancer
http://www.ncbi.nlm.nih.gov/pubmed/23876361

- Journal: *Surgery*
- Institution(s): Kyushu University, Fukuoka, Japan
- Corresponding author(s): Kenoki Ohuchida
- Major finding: The authors characterized a newly established pancreatic cancer cell line with highly metastatic potential. Mal, T-cell differentiation protein 2 (MAL2) is a promising predictive marker for distant metastasis and short survival in patients with resected pancreatic cancer.

Disease-specific mortality among patients with intraductal papillary mucinous neoplasm of pancreas
http://www.ncbi.nlm.nih.gov/pubmed/23892276

- Journal: *Clinical Gastroenterology and Hepatology*
- Institution(s): The University of Tokyo, Tokyo, Japan
- Corresponding author(s): Minoru Tada
- Major finding: Detection of a hypo-attenuating area by computed tomography significantly increases risk for pancreatic cancer-specific mortality among intraductal papillary mucinous

neoplasm (IPMN) patients with consensus indications for surgery. Surgical resection significantly reduces this risk.

Impact of preoperative diabetes mellitus on clinical outcome after pancreatectomy
http://www.ncbi.nlm.nih.gov/pubmed/23891775

- Journal: *International Journal of Surgery*
- Institution(s): Kashiwara Municipal Hospital, Kashiwara City, Osaka, Japan and others
- Corresponding author(s): Bunzo Nakata
- Major finding: The occurrence rates of postoperative mortality and morbidities including pancreatic fistula and renal failure of moderate to severe degrees were almost same between patients with and without preoperative diabetes mellitus (DM). The influence of preoperative DM on long term survival after pancreatectomy should be elucidated by future studies under accurate and consistent definitions of DM.

Knockdown of Oct4 and Nanog expression inhibits the stemness of pancreatic cancer cells
http://www.ncbi.nlm.nih.gov/pubmed/23872274

- Journal: *Cancer Letters*
- Institution(s): Affiliated Hospital of Nantong University, Nantong, PR China and others
- Corresponding author(s): Zhiwei Wang
- Major finding: The authors' results suggest that Oct4 and Nanog may serve as a potential marker of prognosis and a novel target of therapy for pancreatic cancer.

A 92-gene cancer classifier predicts the site of origin for neuroendocrine tumors
http://www.ncbi.nlm.nih.gov/pubmed/23846576

- Journal: *Modern Pathology*
- Institution(s): Mayo Clinic, Rochester, MN
- Corresponding author(s): Sarah Dry
- Major finding: The 92-gene classifier demonstrated excellent accuracy for classifying and determining the site of origin in tumors with neuroendocrine differentiation. These results show promise for use of this test to aid in classifying neuroendocrine tumors of indeterminate primary site, particularly in the metastatic setting.

TREATMENT

A multinational phase 2 study of nanoliposomal irinotecan sucrosofate (PEP02, MM-398)
http://www.ncbi.nlm.nih.gov/pubmed/23880820

- Journal: *British Journal of Cancer*
- Institution(s): University of California, San Francisco, San Francisco, CA
- Corresponding author(s): L-T Chen
- Pancreatic Cancer Action Network-affiliated authors:
    - Andrew Ko, MD: 2003 Career Development Award and member, Medical Advisory Board
    - Margaret Tempero, MD – member, Scientific Advisory Board
- Major finding: PEP02, also known as MM-398, is a novel nanoliposomal irinotecan that has improved pharmacokinetics and tumor bio-distribution of the free drug. This phase 2 study evaluated PEP02 monotherapy as second-line treatment for pancreatic cancer. PEP02 demonstrates moderate antitumor activity with a manageable side effect profile for metastatic,

gemcitabine-refractory pancreatic cancer patients. Given the limited treatment options available to this patient population, a phase 3 trial of PEP02 (MM-398), referred to as NAPOLI-1, is currently underway.

Phase 2 study of erlotinib combined with adjuvant chemoradiation and chemotherapy
http://www.ncbi.nlm.nih.gov/pubmed/23773391

- Journal: *International Journal of Radiation Oncology*
- Institution(s): Johns Hopkins School of Medicine, Baltimore, MD and others
- Corresponding author(s): Joseph Herman
- Pancreatic Cancer Action Network-affiliated authors:
    - Joseph Herman, MD: 2008 Blum-Kovler – Career Development Award and member, Medical Advisory Board
    - Ralph Hruban, MD – member, Emeritus Scientific Advisory Board
- Major finding: Erlotinib can be safely administered with adjuvant intensity modulated radiation therapy (IMRT)-based chemoradiotherapy and chemotherapy. The efficacy of this regimen appears comparable to that of existing adjuvant regimens. Radiation Therapy Oncology Group 0848 will ultimately determine whether erlotinib produces a survival benefit in patients with resected pancreatic cancer.

CTGF antagonism with mAb FG-3019 enhances chemotherapy without increasing drug delivery
http://www.ncbi.nlm.nih.gov/pubmed/23836645

- Journal: *Proceedings of the National Academy of Sciences*
- Institution(s): Cancer Research UK Cambridge Institute, Cambridge, UK and others
- Corresponding author(s): David Tuveson
- Pancreatic Cancer Action Network-affiliated author: David Tuveson, MD, PhD: 2003 Career Development Award and member, Emeritus Scientific Advisory Board
- Major finding: Prior studies could not determine whether chemotherapy delivery or microenvironment modulation per se were the dominant features in treatment response, and such information could guide the optimal translation of these preclinical findings to patients. Alterations in survival cues following targeting of tumor microenvironmental factors may play an important role in treatment responses in animal models, and by extension in pancreatic ductal adenocarcinoma patients.

Recent progress in pancreatic cancer
http://www.ncbi.nlm.nih.gov/pubmed/23856911

- Journal: *CA: A Cancer Journal for Clinicians*
- Institution(s): The Johns Hopkins University School of Medicine, Baltimore, MD
- Corresponding author(s): Ralph Hruban
- Pancreatic Cancer Action Network-affiliated authors:
    - Joseph Herman, MD: 2008 Blum-Kovler – Career Development Award and member, Medical Advisory Board
    - Ralph Hruban, MD: member, Emeritus Scientific Advisory Board
- Major finding: It is clear that multidisciplinary care that provides comprehensive and coordinated evaluation and treatment is the most effective way to manage patients with pancreatic cancer. In this article the authors will review recent progress in pancreatic cancer, with emphasis on genetic advances and the multidisciplinary team approach to patient care.

Pancreatic cancer: why is it so hard to treat?
http://www.ncbi.nlm.nih.gov/pubmed/23814611

- Journal: *Therapeutic Advances in Gastroenterology*
- Institution(s): Columbia University Medical Center, New York, NY
- Corresponding author(s): Kenneth Olive
- Pancreatic Cancer Action Network-affiliated author: Kenneth Olive, PhD: 2011 Tempur-Pedic Retailers – Career Development Award
- Major finding: As reviewed here, reflecting on the fundamental question of why pancreatic cancer is so difficult to treat is a necessary and informative exercise that will aid our efforts to improve patient outcomes. These efforts will lead to improvements in clinical trial design, expand our focus to include the molecular and histologic implications of novel treatment paradigms, and ultimately change the lives of our patients.

Maintenance sunitinib or observation in metastatic pancreatic cancer: A phase II randomised trial
http://www.ncbi.nlm.nih.gov/pubmed/23899530

- Journal: *European Journal of Cancer*
- Institution(s): S. Raffaele Scientific Institute, Milan, Italy and others
- Corresponding author(s): Michele Reni
- Major finding: This is the first randomized trial on maintenance therapy in metastatic pancreatic adenocarcinoma. The primary end-point was fulfilled and 2y overall survival was remarkably high, suggesting that maintenance sunitinib is promising and should be further explored in this patient population.

***Viscum album* [L.] extract therapy in patients with locally advanced or metastatic pancreatic cancer**
http://www.ncbi.nlm.nih.gov/pubmed/23890767

- Journal: *European Journal of Cancer*
- Institution(s): Clinical Research Dr. Tröger, Freiburg, Germany and others
- Corresponding author(s): Wilfried Tröger
- Major finding: An extract of *Viscum album* [L.] (VaL) therapy showed a significant and clinically relevant prolongation of overall survival (OS). The study findings suggest VaL to be a non-toxic and effective second-line therapy that offers a prolongation of OS as well as less disease-related symptoms for patients with locally advanced or metastatic pancreatic cancer.

Multicenter phase II trial to investigate safety, efficacy of gemcitabine, cetuximab as adjuvant therapy
http://www.ncbi.nlm.nih.gov/pubmed/23897705

- Journal: *Annals of Oncology*
- Institution(s): Philipps-University of Marburg, Marburg, Germany and others
- Corresponding author(s): Thomas Mathias Gress
- Major finding: Addition of cetuximab to adjuvant gemcitabine does not seem to improve disease-free survival (DFS) or overall survival (OS) of unstratified pancreatic cancer patients. Trends for improved DFS in patients with wild-type K-Ras and skin toxic effect remain to be confirmed.

First-line erlotinib and fixed dose-rate gemcitabine for advanced pancreatic cancer
http://www.ncbi.nlm.nih.gov/pubmed/23901226

- Journal: *World Journal of Gastroenterology*
- Institution(s): Regina Elena National Cancer Institute, Rome, Italy and others

- Corresponding author(s): Michele Milella
- Major finding: The authors designed a single-arm prospective, multicenter, open-label phase II study to evaluate the combination of erlotinib and weekly fixed dose-rate gemcitabine in a population of previously untreated patients with locally advanced, inoperable, or metastatic pancreatic cancer. Primary study endpoint was not met. However, skin rash strongly predicted erlotinib efficacy, suggesting that a pharmacodynamic-based strategy for patient selection deserves further investigation.

Inhibition of checkpoint kinase 2 enhances sensitivity of pancreatic adenocarcinoma to gemcitabine
http://www.ncbi.nlm.nih.gov/pubmed/23855452

- Journal: *Journal of Cellular and Molecular Medicine*
- Institution(s): Georgetown University, Washington, DC and others
- Corresponding author(s): Yeon-Sun Seong and Insoo Bae
- Major finding: Checkpoint kinase 2 (CHK2) plays pivotal function as an effector of cell cycle checkpoint arrest following DNA damage. The authors' findings suggest that inhibition of CHK2 would be a beneficial therapeutic approach for pancreatic cancer therapy in clinical treatment.

MicroRNA-29a induces resistance to gemcitabine through the Wnt/β-catenin signaling pathway
http://www.ncbi.nlm.nih.gov/pubmed/23900458

- Journal: *International Journal of Oncology*
- Institution(s): Osaka University, Suita, Osaka, Japan
- Corresponding author(s): Yeon-Sun Seong and Insoo Bae
- Major finding: The authors' findings suggest that miR-29a expression correlates significantly with the growth-inhibitory effect of gemcitabine and that activation of the Wnt/β-catenin signaling pathway mediated the miR-29a-induced resistance to gemcitabine in pancreatic cancer cell lines.

Drug-eluting scaffold to deliver chemotherapeutic medication for management after surgery
http://www.ncbi.nlm.nih.gov/pubmed/23885173

- Journal: *International Journal of Nanomedicine*
- Institution(s): Shanghai Jiao Tong University, Shanghai, People's Republic of China and others
- Corresponding author(s): Hongwei Li
- Major finding: The authors explored the local delivery of a reduced dosage of FOLFIRINOX, a four-drug regimen comprising oxaliplatin, leucovorin, irinotecan, and fluorouracil, for pancreatic cancer using a biocompatible drug-eluting scaffold as a novel chemotherapy strategy after palliative surgery. This clinically oriented study gives rise to a promising alternative strategy for postsurgical management of pancreatic cancer, featuring a local chemotherapeutic effect with considerable attenuation of side effects.

Aspirin: A potential therapeutic approach in pancreatic cancer
http://www.ncbi.nlm.nih.gov/pubmed/23895681

- Journal: *Current Medicinal Chemistry*
- Institution(s): Xi'an Jiaotong University, Shaanxi, China
- Corresponding author(s): Qingyong Ma
- Major finding: The COX-dependent and COX-independent mechanisms will be described in this review. In addition, the authors discuss future research directions on the risks and benefits of

the use of aspirin to treat pancreatic cancer and the potential cellular/molecular mechanisms and cellular targets that are involved in its activity.

IMRT neoadjuvant chemoradiation, locally advanced: Outcome analysis, comparison with 3D-treated
http://www.ncbi.nlm.nih.gov/pubmed/23896630

- Journal: *Strahlentherapie und Onkologie*
- Institution(s): University Hospital of Heidelberg, Heidelberg, Germany
- Corresponding author(s): Stephanie Combs
- Major finding: Intensity modulated radiotherapy (IMRT) leads to a comparable outcome compared to 3D conformal radiotherapy (3D-RT) in patients with locally advanced pancreatic cancer. In the future, the improved dose distribution, as well as advances in image-guided radiotherapy (IGRT) techniques, may improve the use of IMRT in local dose escalation strategies to potentially improve outcome.

miR-99b-targeted mTOR induction contributes to irradiation resistance in pancreatic cancer
http://www.ncbi.nlm.nih.gov/pubmed/23886294

- Journal: *Molecular Cancer*
- Institution(s): Jilin University, Changchun, China and others
- Corresponding author(s): Xiaochang Xue and Zifan Lu
- Major finding: The authors' data provide a rationale for overcoming radio-resistance by combining with the mTOR inhibitor AZD8055 in pancreatic cancer therapy.

S100A4 mRNA expression level is a predictor of radioresistance of pancreatic cancer cells
http://www.ncbi.nlm.nih.gov/pubmed/23900547

- Journal: *Oncology Reports*
- Institution(s): Kyushu University, Fukuoka, Japan
- Corresponding author(s): Masao Tanaka
- Major finding: S100 calcium binding protein A4 (S100A4) mRNA expression may predict radioresistance of pancreatic cancer cells and may play an important role in the poor response of pancreatic cancer cells to radiation therapy.

Cyclopamine increases the radiosensitivity by regulating the DNA repair signal pathway through EGFR
http://www.ncbi.nlm.nih.gov/pubmed/23903906

- Journal: *Molecular Medicine Reports*
- Institution(s): Kunshan First People's Hospital Affiliated to Jiangsu University, Kunshan, Jiangsu, P.R. China
- Corresponding author(s): Hua Zhao
- Major finding: Cyclopamine enhanced the radiosensitivity of human pancreatic cancer cells, in part, through an EGFR‑dependent pathway, indicating a rational approach in combination with radiotherapy.

Combination treatment with comprehensive cryoablation and immunotherapy
http://www.ncbi.nlm.nih.gov/pubmed/23899940

- Journal: *Pancreas*
- Institution(s): Jinan University, Guangzhou, China
- Corresponding author(s): Kecheng Xu

- Major finding: Cryoimmunotherapy significantly increased overall survival in metastatic pancreatic cancer. Multiple cryoablations and normal pretreatment immunologic function were associated with better prognosis.

Neoadjuvant treatment of borderline resectable and non-resectable pancreatic cancer
http://www.ncbi.nlm.nih.gov/pubmed/23852311

- Journal: *Annals of Oncology*
- Institution(s): Ludwig-Maximilians-University of Munich, Munich, Germany
- Corresponding author(s): Volker Heinemann
- Major finding: Patient selection evolves as an important aspect of neoadjuvant therapy; retrospective analyses identified induction chemotherapy as an appropriate tool to define locally advanced pancreatic cancer patients who may benefit most from subsequent treatment with chemoradiotherapy. The clinical importance of induction chemotherapy may further increase once highly active protocols such as the FOLFIRINOX or the gemcitabine plus nab-paclitaxel regimen are introduced into novel multimodality treatment concepts.

Sonoporation-enhanced chemotherapy significantly reduces tumour burden in orthotopic xenograft
http://www.ncbi.nlm.nih.gov/pubmed/23877869

- Journal: *Molecular Imaging and Biology*
- Institution(s): Haukeland University Hospital, Bergen, Norway and others
- Corresponding author(s): Emmet McCormack
- Major finding: Combined sonoporation and gemcitabine therapy significantly impedes primary tumor development in an orthotopic xenograft model of human pancreatic cancer, suggesting additional clinical benefits for patients treated with gemcitabine in combination with sonoporation.

Treatment of human pancreatic cancer using combined ultrasound, microbubbles, and gemcitabine
http://www.ncbi.nlm.nih.gov/pubmed/23822453

- Journal: *Medical Physics*
- Institution(s): University of Bergen, Bergen, Norway
- Corresponding author(s): Michiel Postema
- Major finding: It is possible to combine ultrasound, microbubbles, and chemotherapy in a clinical setting using commercially available clinical ultrasound scanners to increase the number of treatment cycles, prolonging the quality of life in patients with pancreatic adenocarcinoma compared to chemotherapy alone.

Perspective: Opportunities in recalcitrant, rare and neglected tumors
http://www.ncbi.nlm.nih.gov/pubmed/23820887

- Journal: *Oncology Reports*
- Institution(s): National Cancer Institute, Rockville, MD
- Corresponding author(s): Beverly Teicher
- Major finding: This article references the *Recalcitrant Cancer Research Act* passed by President Obama earlier this year. The NCI has active Specialized Programs of Research Excellence (SPORE) programs and an internal effort focused on recalcitrant, rare and neglected cancers which are generating data toward improving treatment of these difficult diseases.

Public availability of results of trials assessing cancer drugs in the United States
http://www.ncbi.nlm.nih.gov/pubmed/23878298

- Journal: *Journal of Clinical Oncology*
- Institution(s): French Cochrane Centre, Paris, France
- Corresponding author(s): Agnes Dechartres
- Major finding: Despite the Food and Drug Administration Amendments Act (FDAAA), results for nearly half the trials of cancer drugs in the United States were not publicly available 3 years after completion of the trials.

Tumour-stroma interactions: Rationale and current evidence for new therapeutic strategies
http://www.ncbi.nlm.nih.gov/pubmed/23849556

- Journal: *Cancer Treatment Reviews*
- Institution(s): Ludwig-Maximilians-Universität München, Germany and others
- Corresponding author(s): Michel Ducreux
- Major finding: It is thought that some key characteristics of pancreatic cancer, such as the desmoplasia, restricted vasculature and hypoxic environment, may prevent the delivery of chemotherapy to the tumor thereby explaining the limited benefits observed to-date. Moreover, there is evidence to suggest that the stroma is not only a mechanical barrier but also constitutes a dynamic compartment of pancreatic tumors that is critically involved in tumor formation, progression and metastasis. Thus, targeting the stroma and the tumor represents a promising therapeutic strategy.

Evolutionary dynamics of cancer in response to targeted combination therapy
http://www.ncbi.nlm.nih.gov/pubmed/23805382

- Journal: *eLIFE*
- Institution(s): Harvard University, Cambridge, MA and others
- Corresponding author(s): Martin Nowak
- Major finding: The authors' results provide realistic expectations for the efficacy of new drug combinations and inform the design of trials for new cancer therapeutics.

CANCER CONTROL, SURVIVORSHIP, AND OUTCOMES RESEARCH

The rise and fall of cancer mortality in the USA: Why does pancreatic cancer not follow the trend?
http://www.ncbi.nlm.nih.gov/pubmed/23837751

- Journal: *Future Oncology*
- Institution(s): American Cancer Society, Atlanta, GA
- Corresponding author(s): Jiemin Ma
- Major finding: After decades of increase, death rates from all cancers combined have been decreasing since the early 1990s among both men and women in the USA. By contrast, the fourth-leading cause of cancer death in the USA – pancreatic cancer – has not been following the general cancer mortality trend over the years. Reasons for this trend discrepancy between all cancer and pancreatic cancer mortality can be found in all segments of the cancer continuum, from etiology and primary prevention through early detection and screening to treatment and survival.

Considerations for the prediction of survival time in pancreatic cancer based on registry data
http://www.ncbi.nlm.nih.gov/pubmed/23846417

- Journal: *Journal of Pharmacokinetics and Pharmacodynamics*
- Institution(s): he Children's Hospital of Philadelphia, Philadelphia, PA and others
- Corresponding author(s): Jeffrey Barrett
- Major finding: Semi-parametric and parametric survival models in patients with pancreatic adenocarcinoma using data from Surveillance, Epidemiology, and End Result (SEER) registry were developed to identify relevant covariates affecting survival, verify against external patient data and predict disease outcome. These models can evolve to incorporate predictive biomarker and pharmacogenetic correlates once adequate causal data is established.

Modest improvement in overall survival for patients with metastatic pancreatic cancer: Trend analysis
http://www.ncbi.nlm.nih.gov/pubmed/23867367

- Journal: *Pancreas*
- Institution(s): Duke University Medical Center, Durham, NC and others
- Corresponding author(s): Dieter Koeberle
- Major finding: The improvement in overall survival over the past 2 decades among patients with metastatic pancreatic adenocarcinoma is modest and disappointing. More effective therapeutic strategies for advanced disease are desperately needed.

Pancreaticoduodenectomy in elderly adults: Mortality, long-term morbidity, and quality of life?
http://www.ncbi.nlm.nih.gov/pubmed/23865843

- Journal: *Journal of the American Geriatrics Society*
- Institution(s): Tel-Aviv Sourasky Medical Center, Tel-Aviv, Israel
- Corresponding author(s): Fabian Gerstenhaber
- Major finding: Most elderly adults with pancreatic cancer survive longer than 1 year after pancreaticoduodenectomy; 36% survive longer than 2 years. These individuals are likely to have acceptable long-term morbidity and overall good quality of life, corresponding with their age.