



Research

PANCREATIC CANCER ACTION NETWORK

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PANCREATIC CANCER NEWS & UPDATES – AUGUST 2012

PANCREATIC CANCER ACTION NETWORK AND COMMUNITY NEWS

Apply now for a 2013 Pancreatic Cancer Action Network – AACR research grant

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

Press release:

http://www.pancan.org/section_about/news_press_center/2012_press_releases/08_29_12_pr.php

Applications are now being accepted for the 2013 Pancreatic Cancer Action Network – AACR research grants program. More than \$4 million will be awarded this year, including a new \$1 million grant mechanism called the Research Acceleration Network grant. Click the link above for more information about our mechanisms, application criteria, and deadlines to apply. Spread the word!

New York Academy of Sciences symposium: Pancreatic Cancer: Translation of New Ideas

<http://www.nyas.org/Events/Detail.aspx?cid=69ef8d62-85ef-461a-943f-5353cdc3228d>

This symposium on October 12 will cover the latest research developments in pancreatic cancer, with a focus on preclinical and early clinical investigations of rationally targeted drugs that were translated from basic science observations. The event is co-organized by Ken Olive, PhD, 2011 Tempur-Pedic® Retailers – Career Development Award recipient, and features talks by Drs. Dafna Bar-Sagi, Dave Tuveson, Alec Kimmelman, and others.

New pancreatic cancer guidelines for patients available from NCCN

<http://www.nccn.org/about/news/ebulletin/2012-09-04/pancreatic.asp>

The National Comprehensive Cancer Network® (NCCN®), with the support of the Pancreatic Cancer Action Network, announces the latest addition to the library of NCCN Guidelines for Patients™, patient-friendly translations of the NCCN Clinical Practice Guidelines in Oncology. The NCCN Guidelines for Patients™ are designed to provide people with cancer and their caregivers with state-of-the-art treatment information in easy-to-understand language. The press release quotes Julie Fleshman, President and CEO of the Pancreatic Cancer Action Network.

Genes now tell doctors secrets they can't utter

http://www.nytimes.com/2012/08/26/health/research/with-rise-of-gene-sequencing-ethical-puzzles.html?_r=3&pagewanted=all

This *NY Times* article describes a dilemma whereby genetic researchers who are using tools that are ever more sophisticated to peer into the DNA of cells are increasingly finding things they were not looking for, including information that could make a big difference to an anonymous donor. Scientific Advisory Board member Gloria Petersen, PhD is interviewed to discuss a disclosure problem in a study of genes that predispose people to pancreatic cancer.

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).

New! Clinical studies of safety and effectiveness of Orphan Products Research Project Grant (R01)

<http://www.fda.gov/ForIndustry/DevelopingProductsforRareDiseasesConditions/WhomtoContactaboutOrphanProductDevelopment/ucm134580.htm>

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 where no current therapy exists or where the proposed product will be superior to the existing therapy.

New! Funding opportunities in extracellular RNA communication

<http://commonfund.nih.gov/exrna/grants.aspx>

The recent finding that RNA molecules are secreted in the extracellular space and act as endocrine signals to alter the phenotypes of target cells represents a novel paradigm in intracellular signaling. Extracellular RNAs (exRNAs) have both protective and pathogenic roles in a variety of human disease. To address critical needs and opportunities in this nascent field, the NIH Common Fund has launched the Extracellular RNA Communication program.

New! Abstract submitter now open: 2013 Gastrointestinal Cancers Symposium

<http://www.gicasym.org/>

The 2013 Gastrointestinal Cancers Symposium is a specialized conference designed for the exchange of research and science in the field of gastrointestinal (GI) oncology, and will take place January 24-26, 2013, at the Moscone West Building in San Francisco. Abstract submission deadline is September 25, 2012 at 11:59 PM (EDT).

Funding Opportunity Announcements for the new NCI National Clinical Trials Network Program

<http://ctep.cancer.gov/investigatorResources/default.htm>

The NIH released the 6 Funding Opportunity Announcements (FOAs) for the new NCI National Clinical Trials Network (NCTN) Program. The website includes links to the new FOAs and NCTN Program Guidelines. Each FOA lists the NCI/DCTD (Division of Cancer Treatment and Diagnosis) staff and other NCI staff (along with the appropriate email addresses) to which questions may be addressed.

Pancreas Cancer Research Fellowship at Virginia Mason Cancer Center

<http://jobs.virginiamason.org/job/Seattle-Pancreas-Cancer-Research-Fellowship-Job-WA-98101/1913701/>

Virginia Mason Cancer Center in Seattle is now accepting applications for a Pancreas Cancer Research Fellowship (PCRF) program and hopes to have their first PCRF fellow start on July 1, 2013 (the beginning of the next academic year). Vincent J. Picozzi, Jr., MD (Medical Advisory Board) is the Fellowship Director for this program. More information about the Digestive Disease Institute can be found here: <https://www.virginiamason.org/ddi>.

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."

Transgenomic is awarded NIH STTR Grant for pancreatic cancer research

http://www.transgenomic.com/Press/PR_NIH_STTR_Grant_for_Pancreatic_Cancer_Research_Final_8_2_2012_wci.pdf

Transgenomic, Inc. has been awarded a \$100,000 Small Business Technology Transfer Program (STTR) Phase I Grant by the National Institutes of Health's National Center For Advancing Translational Sciences. This grant, entitled "Early Detection of Pancreatic Cancer Using ICE COLD-PCR," is a joint project with Tony Hollingsworth, PhD, Pancreatic Cancer Action Network Scientific Advisory Board member.

New pancreatic cancer clinical trial applies immunotherapy approach that genetically modifies T cells

<http://www.cancerresearch.org/pressroom/2012/08/15/new-pancreatic-cancer-clinical-trial-applies-revolutionary-immunotherapy-approach-that-genetically-modifies-T-cells/>

The Lustgarten Foundation and the Cancer Research are co-sponsoring a new approach to the treatment of pancreatic cancer: a new clinical trial at the Perelman School of Medicine at the University of Pennsylvania that will focus on altering and training a patient's immune system to target and eliminate cancer cells. This trial is expected to open this fall and continue throughout the next year.

Ohio State leads international pancreatic cancer treatment development effort

<http://cancer.osu.edu/mediaroom/releases/Pages/Ohio-State-Leads-International-Pancreatic-Cancer-Treatment-Development-Effort.aspx>

The Ohio State University Comprehensive Cancer Center – Arthur G. James Cancer Hospital and Richard J. Solove Research Institute is leading a an international pancreatic cancer research effort in collaboration with scientific investigators based in Taiwan and Germany to develop new targeted therapies and novel biomarkers for pancreatic cancer. The initial support for this international pancreatic cancer research program will amount to at least \$1.3 million from various sources including National Cheng-Kung University, OSU-James, the government of Taiwan, and philanthropic funds.

Penn Medicine's Abramson Cancer Center stands up to cancer

<http://news.pennmedicine.org/blog/2012/08/penn-medicines-abramson-cancer-center-stands-up-to-cancer.html>

University of Pennsylvania issued this press release prior to the September 7 SU2C telethon. One of the Dream Team projects, a Penn-led tumor tissue banking study of guitar pick-sized pieces of tissue from pancreatic cancer tumors, is a nationwide scavenger hunt that, bit by bit, is yielding new information that stands to shape a new, hopeful generation of treatments.

BIOLOGY OF CANCER

HuR's post-transcriptional regulation of Death Receptor 5 in pancreatic cancer cells

<http://www.ncbi.nlm.nih.gov/pubmed/22785201>

- Journal: *Cancer Biology & Therapy*
- Institution(s): Thomas Jefferson University, Philadelphia, PA and others
- Corresponding author(s): Jonathan Brody
- PanCAN affiliated authors: Final/corresponding author Jonathan Brody, PhD: 2010 Skip Viragh – Career Development Award
- Major finding: Dr. Brody and his colleagues present evidence that human antigen R (HuR), an RNA-binding protein, plays a role in a core apoptotic pathway disrupted in pancreatic ductal adenocarcinoma cells at least in part by binding to death receptor 5 (DR5) mRNA and regulating DR5 protein expression.

A central role for RAF->MEK->ERK signaling in the genesis of pancreatic ductal adenocarcinoma

<http://www.ncbi.nlm.nih.gov/pubmed/22628411>

- Journal: *Cancer Discovery*
- Institution(s): UCSF and others
- Corresponding author(s): Martin McMahon
- PanCAN affiliated author: First author Eric Collisson, MD: 2012 Skip Viragh – Career Development Award
- Major finding: The authors showed that expression of BRAF(V600E), but not PIK3CA(H1047R), in the mouse pancreas leads to pancreatic intraepithelial neoplasia (PanIN) lesions, and concomitant expression of BRAF(V600E) and TP53(R270H) result in lethal pancreatic ductal adenocarcinoma. Also, mitogen-activated protein (MAP)/extracellular signal-regulated (ERK) kinase (MEK) inhibition was highly effective both in vivo and in vitro and was synergistic with AKT inhibition in most cell lines tested.
- *Please also see Commentary on this article below:*

RAF/MEK dependence of KRAS-mutant pancreatic ductal adenocarcinomas

<http://www.ncbi.nlm.nih.gov/pubmed/22886659>

- Journal: *Cancer Discovery*
- Institution(s): Memorial Sloan-Kettering Cancer Center, New York, NY
- Corresponding author(s): David Solit
- Major finding: *This Commentary discusses the Collisson, et al paper above.* Studies using genetically engineered mouse models indicate that RAF activation is sufficient to induce pancreatic intraepithelial neoplasms, suggesting that mitogen-activated protein kinase MEK inhibitor-based combination approaches may have clinical use in patients with pancreatic ductal adenocarcinomas.

KRASG12D- and BRAFV600E-induced transformation of murine pancreatic epithelial cells

<http://www.ncbi.nlm.nih.gov/pubmed/22871572>

- Journal: *Molecular Cancer Research*
- Institution(s): University of Massachusetts Medical School, Worcester, MA and others
- Corresponding author(s): Brian Lewis
- PanCAN affiliated author: Final/corresponding author Brian Lewis, PhD: 2006 Michael Landon – Career Development Award and 2009 Constance Williams – Pilot Grant
- Major finding: The authors' findings identify a novel mechanism of PI3K/AKT activation downstream of activated KRAS, illustrate the importance of MEK/ERK, PI3K/AKT, and IGF1R signaling in pancreatic tumor initiation, and suggest potential therapeutic strategies for this malignancy.

MUC1 mucin stabilizes and activates hypoxia-inducible factor 1 alpha to regulate metabolism

<http://www.ncbi.nlm.nih.gov/pubmed/22869720>

- Journal: *PNAS*
- Institution(s): University of Nebraska Medical Center, Omaha, NE
- Corresponding author(s): Pankaj Singh
- PanCAN affiliated author: Middle author Tony Hollingsworth, PhD: Scientific Advisory Board member
- Major finding: The authors' studies indicate that MUC1 acts as a master regulator of the metabolic program and facilitates metabolic alterations in the hypoxic environments that help tumor cells survive and proliferate under such conditions.

MyD88 inhibition amplifies dendritic cell capacity to promote pancreatic carcinogenesis via Th2 cells

<http://www.ncbi.nlm.nih.gov/pubmed/22908323>

- **Journal:** *Journal of Experimental Medicine*
- **Institution(s):** NYU, New York, NY
- **Corresponding author(s):** George Miller
- **PanCAN affiliated author:** Middle author Dafna Bar Sagi, PhD: 2008 Pilot Grant and Scientific Advisory Board member
- **Major finding:** The authors' data implicate a primary role for dendritic cells (DCs) in pancreatic carcinogenesis and illustrate divergent pathways in which blockade of TLR4 signaling via TRIF is protective against pancreatic cancer and, conversely, MyD88 inhibition exacerbates pancreatic inflammation and neoplastic transformation by augmenting the DC–Th2 axis.

Inhibition of the hedgehog pathway targets the tumor-associated stroma in pancreatic cancer

<http://www.ncbi.nlm.nih.gov/pubmed/22859707>

- **Journal:** *Molecular Cancer Research*
- **Institution(s):** The University of Texas M.D. Anderson Cancer Center, Houston, TX and others
- **Corresponding author(s):** Rosa Hwang
- **PanCAN affiliated author:** Middle author Craig Logsdon, PhD: Scientific Advisory Board member
- **Major finding:** Based on the use of novel human-derived pancreatic cancer stellate cells, the authors' results suggest that hedgehog-targeted therapies primarily affect the tumor-associated stroma, rather than the epithelial compartment.

PDX-1 Is a therapeutic target for pancreatic cancer, insulinoma and islet neoplasia

<http://www.ncbi.nlm.nih.gov/pubmed/22905092>

- **Journal:** *PLoS One*
- **Institution(s):** University of California, Los Angeles, CA and others
- **Corresponding author(s):** F. Charles Brunicardi
- **PanCAN affiliated author:** Middle author Dave Dawson, MD, PhD: 2008 Seena Magowitz – Career Development Award
- **Major finding:** The authors' data demonstrate that PDX-1 RNAi therapy controls hormonal symptoms and tumor volume in mouse models of pancreatic cancer, insulinoma, and islet neoplasia, therefore, PDX-1 is a potential therapeutic target for these pancreatic diseases.

MUC1c regulates cell survival in pancreatic cancer by preventing lysosomal permeabilization

<http://www.ncbi.nlm.nih.gov/pubmed/22912777>

- **Journal:** *PLoS One*
- **Institution(s):** University of Minnesota, Minneapolis, MN
- **Corresponding author(s):** Ashok Saluja
- **PanCAN affiliated author:** Middle author Selwyn Vickers, MD: Emeritus Scientific Advisory Board
- **Major finding:** This study indicates that the cytosolic end of MUC1, a type I transmembrane glycoprotein (MUC1-c), interacted with HSP70 in the cytosol of pancreatic cancer cells and localized to the lysosomes in these cells. Further, the authors' results showed that MUC1-c protects pancreatic cancer cells from cell death by stabilizing lysosomes and preventing release of Cathepsin B in the cytosol.

Overexpressed galectin-3 in pancreatic cancer induces cell proliferation and invasion

<http://www.ncbi.nlm.nih.gov/pubmed/22900040>

- **Journal:** *PLoS One*
- **Institution(s):** MD Anderson Cancer Center, Houston, TX
- **Corresponding author(s):** Shumei Song
- **PanCAN affiliated author:** Middle author Craig Logsdon, PhD: Scientific Advisory Board member
- **Major finding:** The authors' results suggest that galectin-3 (Gal-3) contributes to pancreatic cancer progression, in part, by binding Ras and activating Ras signaling. Gal-3 may therefore be a potential novel target for this deadly disease.

Grape proanthocyanidin inhibit pancreatic cancer growth through apoptosis and targeting PI3K/Akt

<http://www.ncbi.nlm.nih.gov/pubmed/22905202>

- **Journal:** *PLoS One*
- **Institution(s):** Birmingham Veterans Affairs Medical Center, Birmingham, AL and others
- **Corresponding author(s):** Santosh Katiyar
- **Major finding:** Dietary administration of bioactive proanthocyanidins from grape seeds (GSPs) was associated with (i) inhibition of cell proliferation, (ii) induction of apoptosis of tumor cells, (iii) increased expression of Bax, reduced expression of anti-apoptotic proteins and activation of caspase-3-positive cells, and (iv) decreased expression of PI3K and p-Akt in tumor xenograft tissues. The authors' results suggest that GSPs may have a potential chemotherapeutic effect on pancreatic cancer cell growth.

Antitumor activity of emodin against pancreatic cancer depends on its dual role

<http://www.ncbi.nlm.nih.gov/pubmed/22876305>

- **Journal:** *PLoS One*
- **Institution(s):** Zhejiang University School of Medicine, Hangzhou, China and others
- **Corresponding author(s):** Sheng-Zhang Lin
- **Major finding:** The authors' results suggested that emodin has potential anti-tumor effect on pancreatic cancer via its dual role in the promotion of apoptosis and suppression of angiogenesis, probably through regulating the expression of NF- κ B and NF- κ B-regulated angiogenesis-associated factors.

Celecoxib and GABA cooperatively prevent the progression of pancreatic cancer

<http://www.ncbi.nlm.nih.gov/pubmed/22916251>

- **Journal:** *PLoS One*
- **Institution(s):** University of Tennessee, Knoxville, TN and others
- **Corresponding author(s):** Hildegard Schuller
- **Major finding:** The authors' findings identify the targeted inhibition of stress-induced pathways, such as with the combination of celecoxib and γ -aminobutyric acid (GABA), as a promising area for more effective cancer intervention in pancreatic cancer.

Spatio-temporal patterns of pancreatic cancer cells expressing CD44 isoforms, supported membranes

<http://www.ncbi.nlm.nih.gov/pubmed/22916191>

- **Journal:** *PLoS One*
- **Institution(s):** University of Heidelberg, Heidelberg, Germany and others
- **Corresponding author(s):** Jonathan Sleeman and Motomu Tanaka
- **Major finding:** In this paper, the authors describe a quantitative model of biological membranes by the deposition of planar lipid membranes on solid substrates (called supported membranes), and immobilized biotinylated oligomers of hyaluronic acid (oligo-HA) to the membrane surface via neutravidin cross-linkers. The combination of label-free, time-lapse imaging of living

pancreatic cancer cells and statistical analysis suggests that the static morphology of cells, their stochastic morphological dynamics, and the probability of directed motion reflect the metastatic behavior of the cancer cells.

Genome-wide screening reveals an EMT molecular network mediated by sonic hedgehog-Gli1

<http://www.ncbi.nlm.nih.gov/pubmed/22900095>

- Journal: *PLoS One*
- Institution(s): Tongji University, Shanghai, China and others
- Corresponding author(s): Chuanyong Guo
- Major finding: The authors' results suggest that targeting the molecular connections established between sonic hedgehog-Gli1 signaling and epithelial mesenchymal transition could provide effective therapies for pancreatic cancer.

Inhibition of hedgehog signaling depresses self-renewal of stem cells and reverses chemoresistance

<http://www.ncbi.nlm.nih.gov/pubmed/22923052>

- Journal: *International Journal of Oncology*
- Institution(s): Sun Yat-Sen University, Guangzhou, Guangdong, China and others
- Corresponding author(s): Shi-Neng Zhang
- Major finding: The authors' data indicate that tumorspheres derived from the PANC-1 pancreatic cancer cell line have "stemness" potential, and hedgehog signaling pathway plays an important role in the regulation of self-renewal and reversal of chemoresistance in cancer stem cells in pancreatic adenocarcinoma.

Pancreatic adenocarcinoma upregulated factor, a novel endothelial activator, promotes angiogenesis

<http://www.ncbi.nlm.nih.gov/pubmed/22907431>

- Journal: *Oncogene*
- Institution(s): Korea Research Institute of Bioscience and Biotechnology, Daejeon, Korea and others
- Corresponding author(s): Sang Seok Koh
- Major finding: The authors' data demonstrate that pancreatic adenocarcinoma upregulated factor (PAUF) has a novel function in promoting angiogenesis and vascular permeability. Their findings suggest new possibilities for PAUF's role in the pathogenesis of angiogenesis-dependent diseases.

Heterogeneity in signaling pathways of gastroenteropancreatic neuroendocrine tumors

<http://www.ncbi.nlm.nih.gov/pubmed/22918166>

- Journal: *Modern Pathology*
- Institution(s): Massachusetts General Hospital, Boston, MA
- Corresponding author(s): Vikram Deshpande
- Major finding: The authors' results confirm the heterogeneity in signaling pathways of gastroenteropancreatic neuroendocrine tumors. NOTCH1 inhibitors are unlikely to provide benefit in ileal neuroendocrine tumors; conversely, their efficacy in rectal neuroendocrine tumors needs further study. Further analysis of signaling pathways is critical for designing clinical trials in gastroenteropancreatic neuroendocrine tumors.

Cdk4/6 inhibition induces epithelial-mesenchymal transition and enhances invasiveness

<http://www.ncbi.nlm.nih.gov/pubmed/22869556>

- Journal: *Molecular Cancer Therapeutics*
- Institution(s): Indiana University School of Medicine, Indianapolis, IN
- Corresponding author(s): Murray Korc
- Major finding: Taken together, the authors' data suggest that anti-Cdk4/6 therapy could induce epithelial-mesenchymal transition and enhance pancreatic cancer cell invasion by activating Smad-dependent TGF- β signaling, and that combining PD-0332991 (an inhibitor for Cdk4 and Cdk6) and SB-505124 (an inhibitor of the type I TGF- β receptor kinase) may represent a novel therapeutic strategy in pancreatic ductal adenocarcinoma.

Apricoxib, a novel inhibitor of COX-2, improves standard therapy response in pancreatic cancer

<http://www.ncbi.nlm.nih.gov/pubmed/22829202>

- Journal: *Clinical Cancer Research*
- Institution(s): University of Texas Southwestern Medical Center, Dallas, TX and others
- Corresponding author(s): Rolf Brekken
- Major finding: Apricoxib, a novel COX-2 inhibitor in phase II clinical trials, was found to robustly reverse epithelial-to-mesenchymal transition and augment standard therapy (gemcitabine +/- erlotinib) without reducing microvessel density, and warrants further clinical evaluation in patients with pancreatic cancer.

A Nupr1-Aurora kinase A pathway provides protection against metabolic stress-mediated cell death

<http://www.ncbi.nlm.nih.gov/pubmed/22899799>

- Journal: *Clinical Cancer Research*
- Institution(s): INSERM, Marseilles, France and others
- Corresponding author(s): Juan Iovanna
- Major finding: The authors' data reveal that nuclear protein 1 (Nupr1) is involved in a defense mechanism that promotes pancreatic cancer cell survival when exposed to metabolic stress.

Apigenin inhibits NNK-induced focal adhesion kinase activation in pancreatic cancer cells

<http://www.ncbi.nlm.nih.gov/pubmed/22889981>

- Journal: *Pancreas*
- Institution(s): UCLA
- Corresponding author(s): Guido Eibl
- Major finding: This study was designed to determine the effects of apigenin (4', 5, 7-trihydroxyflavone) on the tobacco-derived carcinogen 4-(methylnitrosamino)-1-(3-pyridyl)-1-butanone (NNK)-induced procarcinogenesis using human pancreatic cancer cell lines. Apigenin suppressed the effects of NNK on pancreatic cancer cell proliferation and migration that are mediated through the β -adrenergic receptor and its downstream signals FAK and ERK activation.

Exome sequencing and digital PCR analyses reveal novel mutated genes related to the metastasis

<http://www.ncbi.nlm.nih.gov/pubmed/22797009>

- Journal: *Cancer Biology & Therapy*
- Institution(s): Chinese Academy of Medical Sciences, Beijing, China and others
- Corresponding author(s): Yu-Pei Zhao
- Major finding: The authors analyzed matched tumor and normal tissue samples from a patient diagnosed with liver metastatic pancreatic ductal adenocarcinoma using intensive exome capture-sequencing analysis, and identified 12 genes with higher allele frequencies of functional mutations in the metastatic tumor. These results show the possibility that personalized genomic profiling may provide new biological insight into the metastasis of pancreatic cancer.

The evolving concept of cancer and metastasis stem cells

<http://www.ncbi.nlm.nih.gov/pubmed/22869594>

- **Journal:** *Journal of Cell Biology*
- **Institution(s):** Heidelberg Institute for Stem Cell Technology and Experimental Medicine, Heidelberg, Germany and others
- **Corresponding author(s):** Andreas Trumpp
- **Major finding:** The cancer stem cell (CSC) concept, which arose more than a decade ago, proposed that tumor growth is sustained by a subpopulation of highly malignant cancerous cells. These cells, termed CSCs, comprise the top of the tumor cell hierarchy and have been isolated from many leukemias and solid tumors, including pancreatic. The authors review the CSC concept that has evolved to better model the complex and highly dynamic processes of tumorigenesis, tumor relapse, and metastasis.

The bidirectional interaction between pancreatic cancer and diabetes

<http://www.ncbi.nlm.nih.gov/pubmed/22920886>

- **Journal:** *World Journal of Surgical Oncology*
- **Institution(s):** Xi'an Jiaotong University, Xi'an, People's Republic of China
- **Corresponding author(s):** Gang Cao
- **Major finding:** The bidirectional interaction between pancreatic cancer and diabetes is involved in the occurrence, proliferation, invasion, metastasis, and prognosis of pancreatic cancer with diabetes. The authors review how the discovery of biomarkers for the early diagnosis of pancreatic cancer, as well as the novel usage of metformin for its antitumor effects and determining the potential mechanisms of these effects, may be the next direction for pancreatic cancer research and treatment.

Nature Reviews Gastroenterology & Hepatology – Focus on: Pancreatic Cancer

http://www.nature.com/nrgastro/journal/v9/n8/index.html?WT.ec_id=NRGASTRO-201208

- **Journal:** *Nature Reviews Gastroenterology & Hepatology*
- **Review articles:**
 - **New biomarkers and targets in pancreatic cancer and their application to treatment**
 - **Institution(s):** University of Liverpool, Liverpool, UK
 - **Corresponding author(s):** John P. Neoptolemos
 - **Familial pancreatic cancer—current knowledge**
 - **Institution(s):** Philipps–University Marburg, Marburg, Germany
 - **Corresponding author(s):** Detlef Bartsch
 - **The role of stroma in pancreatic cancer: diagnostic and therapeutic implications**
 - **Institution(s):** Technische Universität München, Munich, Germany
 - **Corresponding author(s):** Mert Erkan
 - **The current state of robotic-assisted pancreatic surgery**
 - **Institution(s):** University of Pittsburgh, Pittsburgh, PA and others
 - **Corresponding author(s):** Amer Zureikat
 - **Applying next-generation sequencing to pancreatic cancer treatment**
 - **Institution(s):** Washington University School of Medicine, St. Louis, MO
 - **Corresponding author(s):** Elaine Mardis

ETIOLOGY

Alcohol & tobacco lower age of presentation in sporadic pancreatic cancer in dose-dependent manner

<http://www.ncbi.nlm.nih.gov/pubmed/22929760>

- **Journal:** *The American Journal of Gastroenterology*
- **Institution(s):** University of Michigan Health System, Ann Arbor, MI
- **Corresponding author(s):** Randall Brand
- **Major finding:** Alcohol and tobacco use are associated with a dose-related increased risk for earlier age of onset of pancreatic cancer. Although beer drinkers develop pancreatic cancer at an earlier age than nondrinkers, alcohol type did not have a significant effect after controlling for alcohol dose.

Green tea drinking and risk of pancreatic cancer: A large-scale, population-based case-control study

<http://www.ncbi.nlm.nih.gov/pubmed/22944495>

- **Journal:** *Cancer Epidemiology*
- **Institution(s):** Shanghai Jiaotong University School of Medicine, Shanghai, China and others
- **Corresponding author(s):** Yu-Tang Gao
- **Major finding:** Based on a population-based case-control study conducted in urban Shanghai, the authors found that habits of green tea drinking, including regular drinking, amount of consumption, persistence of the habit, and tea temperature, may lower pancreatic cancer risk.

Intake of fruits and vegetables and risk of pancreatic cancer in a pooled analysis of 14 cohort studies

<http://www.ncbi.nlm.nih.gov/pubmed/22875754>

- **Journal:** *American Journal of Epidemiology*
- **Institution(s):** University of Montreal Hospital Research Centre, Montreal, Quebec, Canada
- **Corresponding author(s):** Anita Koushik
- **Major finding:** The authors' results suggest that fruit and vegetable intake during adulthood is not associated with a reduced pancreatic cancer risk. Associations were similar for men and women separately and across studies.

Coffee consumption and risk of gastric and pancreatic cancer-a prospective cohort study

<http://www.ncbi.nlm.nih.gov/pubmed/22886387>

- **Journal:** *International Journal of Cancer*
- **Institution(s):** National Institute for Health and Welfare, Helsinki, Finland and others
- **Corresponding author(s):** Siamak Bidel
- **Major finding:** The authors did not find a significant association between coffee consumption and the risk of gastric and/or pancreatic cancers.

Raf-1 kinase inhibitory protein-mediates ethanol-induced sensitization of secretagogue signaling

<http://www.ncbi.nlm.nih.gov/pubmed/22859298>

- **Journal:** *Journal of Biological Chemistry*
- **Institution(s):** University of Texas Medical Branch, Galveston, TX
- **Corresponding author(s):** Mark Hellmich
- **Major finding:** The authors show that either suppression of Raf-1 kinase inhibitory protein (RKIP) expression, using short hairpin RNA (shRNA), or gene ablation (RKIP null mice), prevented the sensitizing effects of ethanol on signaling in pancreatic acinar cells, suggesting that the modulation of RKIP expression may have future therapeutic utility in the prevention or treatment of alcohol-associated pancreatitis.

Dietary folates and cancer risk in a network of case-control studies

<http://www.ncbi.nlm.nih.gov/pubmed/22898036>

- Journal: *Annals of Oncology*
- Institution(s): Istituto di Ricerche Farmacologiche 'Mario Negri', Milan, Italy and others
- Corresponding author(s): Alessandra Tavani
- Major finding: Based on a network of case-control studies conducted in Italy and Switzerland in 1991-2009, the authors' data support a real inverse association of dietary folate intake with the risk of several common cancers, including pancreatic.

PREVENTION

Daily aspirin use and cancer mortality in a large US cohort

<http://www.ncbi.nlm.nih.gov/pubmed/22888140>

Media coverage: Study: can daily aspirin help ward off cancer?

<http://www.reuters.com/article/2012/08/13/us-aspirin-idUSBRE87C01620120813>

- Journal: *JNCI*
- Institution(s): American Cancer Society, Atlanta, GA
- Corresponding author(s): Eric Jacobs
- Major finding: The authors' results are consistent with an association between recent daily aspirin use and modestly lower cancer mortality, but suggest that any reduction in cancer mortality may be smaller than that observed with long-term aspirin use in the pooled trial analysis.

EARLY DETECTION, DIAGNOSIS, AND PROGNOSIS

Comparison of conventional and 3D-CT against histopathologic examination in tumor size

<http://www.ncbi.nlm.nih.gov/pubmed/22883106>

- Journal: *Radiotherapy & Oncology*
- Institution(s): Johns Hopkins University, Baltimore, MD
- Corresponding author(s): Joseph Herman
- PanCAN affiliated authors:
 - Final/corresponding author Joseph Herman, MD: 2008 Blum-Kovler – Career Development Award
 - Middle author Ralph Hruban, MD: Emeritus Scientific Advisory Board member
- Major finding: Three-dimensional computed tomography (3D-CT) may allow for more accurate contouring of pancreatic tumors than conventional CT (C-CT). Patients with certain clinicopathologic characteristics may require expanded margins relative to tumor size estimates on C-CT during radiotherapy planning.

Mutant GNAS detected in duodenal collections of secretin-stimulated pancreatic juice

<http://www.ncbi.nlm.nih.gov/pubmed/22859495>

- Journal: *Gut*
- Institution(s): Johns Hopkins University, Baltimore, MD and others
- Corresponding author(s): Michael Goggins
- PanCAN affiliated authors:
 - Middle author Jim Eshelman, MD, PhD: 2011 Innovative Grant
 - Middle author Ralph Hruban, MD: Emeritus Scientific Advisory Board member
 - Middle author Mimi Canto, MD: Medical Advisory Board member
- Major finding: Duodenal collections of secretin-stimulated pancreatic juice from patients with intraductal papillary mucinous neoplasms (IPMNs) have a similar prevalence of mutant GNAS to primary IPMNs, indicating that these samples are an excellent source of mutant DNA from the pancreas. The detection of GNAS mutations before an IPMN is visible suggests that analysis of

pancreatic juice has the potential to help in the risk stratification and surveillance of patients undergoing pancreatic screening.

PAM4 enzyme immunoassay alone and in combination with CA 19-9

<http://www.ncbi.nlm.nih.gov/pubmed/22898932>

- Journal: *Cancer*
- Institution(s): Garden State Cancer Center, Morris Plains, NJ and others
- Corresponding author(s): David Gold
- PanCAN affiliated author: Middle author Ralph Hruban, MD: Emeritus Scientific Advisory Board member
- Major finding: The PAM4 enzyme immunoassay identified approximately two-thirds of patients with stage I pancreatic ductal adenocarcinoma (PDAC) with high discriminatory power with respect to benign, nonneoplastic pancreatic disease. These results provide a rationale for testing patient groups considered to be at high risk for PDAC with a combined PAM4 and CA 19-9 biomarker serum assay for the detection of early stage PDAC.

HOXB7 promotes invasion and predicts survival in pancreatic adenocarcinoma

<http://www.ncbi.nlm.nih.gov/pubmed/22914903>

- Journal: *Cancer*
- Institution(s): University of California, Los Angeles, California
- Corresponding author(s): David Dawson
- PanCAN affiliated author: Final/corresponding author Dave Dawson, MD, PhD: 2008 Seena Magowitz – Career Development Award
- Major finding: The homeobox gene HOXB7 is frequently overexpressed in pancreatic ductal adenocarcinoma, specifically promotes invasive phenotype, and is associated with lymph node metastasis and worse survival outcome. HOXB7 and its downstream targets may represent novel clinical biomarkers or targets of therapy for inhibiting the invasive and metastatic capacity of pancreatic cancer.

Microscopic margins and patterns of treatment failure in resected pancreatic adenocarcinoma

<http://www.ncbi.nlm.nih.gov/pubmed/22911074>

- Journal: *Archives of Surgery*
- Institution(s): Washington University in St Louis, MO
- Corresponding author(s): David Linehan
- PanCAN affiliated author: Middle author William Hawkins, MD: 2005 Skip Viragh – Career Development Award
- Major finding: When systematically assessed, the incidence of positive microscopic margins in patients who underwent pancreaticoduodenectomy is high. Positive posterior margins and lymph node involvement were each independently and significantly associated with local recurrence.

MicroRNA dissects out dangerous pancreatic cysts from all the rest

<http://www.ncbi.nlm.nih.gov/pubmed/22919002>

Commentary on: <http://clincancerres.aacrjournals.org/content/18/17/4713>

- Journal: *Clinical Cancer Research*
- Institution(s): The University of Texas MD Anderson Cancer Center, Houston, TX
- Corresponding author(s): Jason Fleming
- PanCAN affiliated author: Final/corresponding author Jason Fleming, MD: Medical Advisory Board member

- **Major finding:** Malignant transformation of pancreatic cysts occurs in only a fraction of patients. The diagnostic dilemma is identifying which cysts pose a cancerous threat. Cyst fluid has been analyzed in a variety of ways to answer this question, but the microRNA profile of the fluid may finally hold the answer.

MicroRNA expression profiles associated with pancreatic and ampullary adenocarcinoma

<http://www.ncbi.nlm.nih.gov/pubmed/22878649>

- **Journal:** *Modern Pathology*
- **Institution(s):** Copenhagen University Hospital, Copenhagen, Denmark
- **Corresponding author(s):** Julia Johansen
- **Major finding:** A diagnostic 19 microRNA classifier was constructed which without micro-dissection could discriminate pancreatic and ampullary adenocarcinomas from chronic pancreatitis and normal pancreas with high sensitivity and accuracy. Ongoing prospective studies will evaluate if these microRNA profiles are useful on fine-needle biopsies for early diagnosis of pancreatic cancer.

MicroRNA profiling of diagnostic needle aspirates from patients with pancreatic cancer

<http://www.ncbi.nlm.nih.gov/pubmed/22929886>

- **Journal:** *British Journal of Cancer*
- **Institution(s):** Wayne State University School of Medicine, Detroit, MI
- **Corresponding author(s):** Philip Philip
- **Major finding:** This study demonstrated the feasibility of using archival formalin-fixed paraffin-embedded cell blocks from fine-needle aspirates to establish RNA-based molecular signatures unique to pancreatic adenocarcinoma with potential applications in clinical trials for risk stratification, patient selection, and target validation.

Feasibility of fecal microRNAs as novel biomarkers for pancreatic cancer

<http://www.ncbi.nlm.nih.gov/pubmed/22905187>

- **Journal:** *PLoS One*
- **Institution(s):** Otto-von-Guericke University, Magdeburg, Germany and others
- **Corresponding author(s):** Alexander Link
- **Major finding:** The authors' data provide novel evidence for the differential expression of miRNAs in feces of patients with pancreatic cancer. If successfully validated in large-scale prospective studies, the fecal miRNA biomarkers may offer novel tools for pancreatic cancer screening research.

Prognostic microRNAs in cancer tissue from patients operated for pancreatic cancer

<http://www.ncbi.nlm.nih.gov/pubmed/22851141>

- **Journal:** *World Journal of Surgery*
- **Institution(s):** Copenhagen University Hospital, Copenhagen, Denmark
- **Corresponding author(s):** Julia Johansen
- **Major finding:** The combination of five miRNAs' expression in non-micro-dissected formalin-fixed paraffin-embedded pancreatic cancer tissue specimens can identify patients with short overall survival after radical surgery. The results are independent of chemotherapy treatment. Patients with a prognostic index greater than the median had a very short median overall survival of only one year.

Effectiveness of combined endoscopic ultrasound-guided fine-needle aspiration biopsy and stenting
<http://www.ncbi.nlm.nih.gov/pubmed/22890210>

- **Journal:** *European Journal of Gastroenterology and Hepatology*
- **Institution(s):** Paris-Decartes University, Paris, France
- **Corresponding author(s):** Frederic Prat
- **Major finding:** The authors found that combined endoscopic ultrasound-guided fine-needle aspiration biopsy and biliary and/or duodenal stenting is feasible in almost all patients with suspected pancreatic cancer, with no additional hazard and a high histological yield.

Role of endoscopic retrograde pancreatography for early detection with IPMN of the pancreas
<http://www.ncbi.nlm.nih.gov/pubmed/22878836>

- **Journal:** *Journal of Hepato-Biliary-Pancreatic Sciences*
- **Institution(s):** Kyushu University, Fukuoka, Japan
- **Corresponding author(s):** Masao Tanaka
- **Major finding:** Endoscopic retrograde pancreatography (ERP) has an important role in the early diagnosis of distinct pancreatic ductal adenocarcinomas in patients with intraductal papillary mucinous neoplasm (IPMN). Further investigation is necessary to clarify the indication and the timing of ERP during management of IPMNs in terms of early detection of concomitant pancreatic tumors.

Tumour basement membrane laminin expression predicts outcome following curative resection
<http://www.ncbi.nlm.nih.gov/pubmed/22929879>

- **Journal:** *British Journal of Cancer*
- **Institution(s):** Erasmus Medical Center, Rotterdam, The Netherlands
- **Corresponding author(s):** Timo Ten Hagen
- **Major finding:** Discontinuous basement membranes, determined by laminin expression, are associated with poor outcome following curative resection of pancreatic head cancer.

Molecular markers associated with outcome and metastasis in human pancreatic cancer
<http://www.ncbi.nlm.nih.gov/pubmed/22925330>

- **Journal:** *Journal of Experimental & Clinical Cancer Research*
- **Institution(s):** University Hospitals Leuven, Leuven, Belgium
- **Corresponding author(s):** Baki Topal
- **Major finding:** Components of the integrin and ephrin pathways and epithelial-to-mesenchymal transition related genes, might serve as molecular markers in pancreatic cancer as their expression seems to be related with prognosis.

Prognostic relevance of number, ratio of metastatic lymph nodes in resected pancreatic carcinomas
<http://www.ncbi.nlm.nih.gov/pubmed/22893118>

- **Journal:** *Annals of Surgical Oncology*
- **Institution(s):** University of Oslo, Oslo, Norway
- **Corresponding author(s):** Ivar Gladhaug
- **Major finding:** The predictive value of nodal involvement depends on the type of cancer within the pancreatic head. In ampullary and biliary cancers, nodal status adequately discriminates between good and poor prognosis. In pancreatic adenocarcinoma, lymph node ratio may be more powerful in prognostic subclassification.

Novel prognostic protein markers identified by coupled shotgun and targeted proteomics

<http://www.ncbi.nlm.nih.gov/pubmed/22915188>

- Journal: *International Journal of Cancer*
- Institution(s): Tohoku University Graduate School of Medicine, Sendai, Japan and others
- Corresponding author(s): Tohru Onogawa
- Major finding: By applying mass spectrometry-based proteomic analysis to formalin-fixed paraffin-embedded tissues, the authors identified four proteins as candidate prognostic markers of pancreatic ductal adenocarcinoma. The combination of shotgun proteomics verified by selected reaction monitoring and validated by immunohistochemistry resulted in prognostic marker discoveries.

Expression of BAG3 is a feature of pancreatic adenocarcinoma and is associated with poorer survival

<http://www.ncbi.nlm.nih.gov/pubmed/22944597>

- Journal: *American Journal of Pathology*
- Institution(s): University of Salerno, Fisciano, Italy and others
- Corresponding author(s): Maria Caterina Turco
- Major finding: The authors' results indicate that the antiapoptotic protein BAG3 has a relevant role in pancreatic ductal adenocarcinoma biology, and suggest that BAG3 expression level might be a potential marker for prediction of patient outcome.

Type 2 diabetes mellitus and survival in pancreatic adenocarcinoma

<http://onlinelibrary.wiley.com/doi/10.1002/cncr.27731/abstract>

- Journal: *Cancer*
- Institution(s): University of Pennsylvania, Philadelphia, PA
- Corresponding author(s): Yu-Xiao Yang
- Major finding: Long-term pre-existing type 2 diabetes mellitus was found to be associated with increased mortality in patients diagnosed with pancreatic adenocarcinoma.

Screening for pancreatic cancer: Why, how, and who?

<http://www.ncbi.nlm.nih.gov/pubmed/22895395>

- Journal: *Annals of Surgery*
- Institution(s): University of Utah, Salt Lake City, UT
- Corresponding author(s): Sean Mulvihill
- Major finding: This review summarizes our current understanding of the biology of pancreatic cancer relevant to methods available for screening. At this time, given the lack of proven benefit in this disease, the authors conclude that screening efforts should probably be undertaken in the context of prospective trials.

Early detection and prevention: Use of genetically engineered mouse models, imaging technologies

<http://www.ncbi.nlm.nih.gov/pubmed/22680929>

- Journal: *Current Medicinal Chemistry*
- Institution(s): Oklahoma University Health Sciences Center, Oklahoma City, OK
- Corresponding author(s): Chinthalapally Rao
- Major finding: This review will consider issues that are unique to working with transgenic mouse models, such as the biology of genetically engineered mouse (GEM) models, stage- tumor-specific detection using imaging technologies, use of monoclonal antibodies, nanoparticles, and biomarkers, and development of chemopreventive and chemotherapeutic drugs for pancreatic ductal adenocarcinoma. These issues will be considered in the context of recently developed preclinical models of pancreatic cancer.

TREATMENT

Clinical Cancer Research: CCR Focus on pancreatic adenocarcinoma

<http://clincancerres.aacrjournals.org/content/18/16#CCRFocus>

- Journal: *Clinical Cancer Research*
- Articles:
 - **Pancreatic cancer: Steps in the right direction**
 - Institution(s): National Cancer Institute
 - Corresponding author(s): Susan Bates
 - **Translational therapeutic opportunities in ductal adenocarcinoma of the pancreas**
 - Institution(s): Centro Nacional de Investigaciones Oncológicas, Madrid, Spain
 - Corresponding author(s): Manuel Hidalgo and Daniel Von Hoff
 - **Genetic basis of pancreas cancer development and progression**
 - Institution(s): Johns Hopkins University, Baltimore, MD
 - Corresponding author(s): Ralph Hruban
 - PanCAN affiliated authors:
 - First author Christine Iacobuzio-Donahue, MD, PhD: 2007 Pilot Grant and Scientific Advisory Board member
 - Final/corresponding author Ralph Hruban, MD: Emeritus Scientific Advisory Board member
 - **The pancreas cancer microenvironment**
 - Institution(s): Cambridge Research Institute, Cancer Research UK and others
 - Corresponding author(s): David Tuveson
 - PanCAN affiliated author: Final/corresponding author David Tuveson, MD, PhD: 2003 Career Development Award and Emeritus Scientific Advisory Board member
 - **Heterogeneity and targeting of pancreatic cancer stem cells**
 - Institution(s): Johns Hopkins University, Baltimore, MD
 - Corresponding author(s): William Matsui
 - PanCAN affiliated authors:
 - Middle author Zeshaan Rasheed, MD, PhD: 2010 Tempur-Pedic® Retailers – Pathway to Leadership Grant
 - Middle author Anirban Maitra, MBBS: 2004 Career Development Award and Chair, Scientific Advisory Board
 - **Conceptual framework for cutting the pancreatic cancer fuel supply**
 - Institution(s): Johns Hopkins University, Baltimore, MD and others
 - Corresponding author(s): Chi Dang
 - PanCAN affiliated author: Middle author Anirban Maitra, MBBS: 2004 Career Development Award and Chair, Scientific Advisory Board

Rosiglitazone and Gemcitabine reduce immune suppression modulates T cell populations

<http://www.ncbi.nlm.nih.gov/pubmed/22864396>

- Journal: *Cancer Immunology, Immunotherapy*
- Institution(s): University of Nebraska Medical Center, Omaha, NE
- Corresponding author(s): Michael (Tony) Hollingsworth
- PanCAN affiliated authors:
 - Final/corresponding author Tony Hollingsworth, PhD: Scientific Advisory Board member
 - Middle author Jennifer Bailey, PhD: 2011 Pathway to Leadership Grant
- Major finding: The authors' results suggest that Rosiglitazone (an FDA-approved drug for the treatment of type II diabetes), in combination with Gemcitabine, decreases immune suppressive

mechanisms in immunocompetent animals and provides pre-clinical data in support of combining Rosiglitazone and Gemcitabine as a clinical therapy for pancreatic cancer.

Human pancreatic adenocarcinoma contains a side population resistant to gemcitabine

<http://www.ncbi.nlm.nih.gov/pubmed/22894607>

- Journal: *BMC Cancer*
- Institution(s): University Hospitals Leuven, Leuven, Belgium
- Corresponding author(s): Baki Topal
- Major finding: The authors identified a side population in human pancreatic ductal adenocarcinoma and uncovered a chemoresistant and cancer stem cell-associated phenotype. This side population may represent a new therapeutic target in pancreatic cancer.

Double-blind study to investigate oral vaccine to elicit an immune reaction against VEGF-Receptor 2

<http://www.ncbi.nlm.nih.gov/pubmed/22906006>

- Journal: *BMC Cancer*
- Institution(s): Vaximm, Mannheim, Germany and others
- Corresponding author(s): Friedrich Schmitz-Winnenthal
- Major finding: This phase I trial examines the safety, tolerability, and immunological and clinical responses to VXMO1, an investigational oral DNA vaccine targeting the vascular endothelial growth factor receptor 2, in patients with locally advanced and stage IV pancreatic cancer. The results of this study will define the recommended dose for phase II and provide the basis for further clinical evaluation, which may also include additional cancer indications.

Molecular evidence for increased activity of gemcitabine with a cyclin-dependent kinase inhibitor

<http://www.ncbi.nlm.nih.gov/pubmed/22873289>

- Journal: *Journal of Translational Medicine*
- Institution(s): Piramal Life Sciences Ltd, Mumbai, India
- Corresponding author(s): Target Identification Group, Piramal Life Sciences Limited
- Major finding: Based on promising preclinical data, Phase IIb clinical trials of the cyclin-dependent kinase inhibitor P276-00 in combination with gemcitabine in pancreatic cancer patients are ongoing. The chemosensitization of pancreatic tumors to gemcitabine would likely be an important and novel strategy for treatment of pancreatic cancer and enable the use of lower and safer concentrations.

Resolution of diabetes after pancreaticoduodenectomy in patients with and without pancreatic cancer

<http://www.ncbi.nlm.nih.gov/pubmed/22864799>

- Journal: *Annals of Surgical Oncology*
- Institution(s): National Taiwan University, Taipei, Taiwan
- Corresponding author(s): Yu-Wen Tien
- Major finding: Diabetes mellitus (DM) resolved after pancreaticoduodenectomy (PD) in some patients both with and without pancreatic ductal adenocarcinoma. These findings suggest that PD-associated anatomic changes may play a role in resolution of DM after PD.

Streptozocin-based chemotherapy is not history in neuroendocrine tumors

<http://www.ncbi.nlm.nih.gov/pubmed/22899468>

- Journal: *Targeted Oncology*
- Institution(s): Royal Free Hospital, London, UK and others
- Corresponding author(s): Tim Meyer
- Major finding: The authors review the evidence base for streptozocin-based chemotherapy, the toxicity associated with treatment, and the role of predictive markers such as Ki67 to select

patients who may benefit most from therapy, in light of the recent approval of sunitinib and everolimus for pancreatic neuroendocrine tumors and the emergence of a more stratified approach to cancer therapy.

Therapy of metastatic pancreatic neuroendocrine tumors (pNETs): Recent insights and advances

<http://www.ncbi.nlm.nih.gov/pubmed/22886480>

- Journal: *Journal of Gastroenterology*
- Institution(s): Kyushu University, Fukuoka, Japan and others
- Corresponding author(s): Robert Jensen
- Major finding: This review focused on the advances made in the management and treatment of patients with advanced metastatic pancreatic neuroendocrine tumors over the past 5 years.

Amgen announces termination of ganitumab Phase 3 study for futility in metastatic pancreatic cancer

http://www.amgen.com/media/media_pr_detail.jsp?releaseID=1723925

Pancreatic Cancer Action Network write-up:

http://pancan.org/section_research/strategic_research_program/news/topic_amgen_discontinues_pancreatic_cancer_clinical_trial.php

- Company: Amgen, Thousand Oaks, CA
- Major finding: Amgen announced a decision to stop the ganitumab (AMG 479, a fully human monoclonal antibody against type-1 insulin-like growth factor receptor (IGF1R)) Phase 3 GAMMA (Gemcitabine and AMG 479 in Metastatic Adenocarcinoma of the Pancreas) trial due to the interim conclusion that the addition of ganitumab to gemcitabine is unlikely to demonstrate a statistically significant improvement in the primary endpoint of overall survival compared to gemcitabine alone.

Rexahn Pharmaceuticals announces positive top-line Phase IIa data for Archexin

<http://www.rexahn.com/cms/index.php/2012/08/rexahn-pharmaceuticals-announces-positive-top-line-phase-ii-a-data-for-archexin-in-patients-with-metastatic-pancreatic-cancer/>

- Company: Rexahn Pharmaceuticals, Inc., Rockville, MD
- Major finding: Rexahn Pharmaceuticals announced top-line results from a Phase II clinical study of Archexin®, its clinical-stage oncology drug candidate that is a potential first-in-class inhibitor of the Akt protein kinase, in metastatic pancreatic cancer patients. For those evaluable patients according to the protocol, the study demonstrated that treatment with Archexin in combination with gemcitabine provided a median survival of 9.1 months compared to the historical survival data of 5.65 months.

Stopping clinical trials early for futility: retrospective analysis of several randomised clinical studies

<http://www.ncbi.nlm.nih.gov/pubmed/22878376>

- Journal: *British Journal of Cancer*
- Institution(s): University College London, London, UK
- Corresponding author(s): Allan Hackshaw
- Major finding: Careful application of futility can lead to future patients in a trial not being given an ineffective treatment, and should therefore be used more often. A secondary consideration is that it could shorten trial duration and reduce costs. However, studies with modest treatment effects could be inappropriately stopped early. Unless there is very good evidence for futility, it is often best to continue to the planned end.

CANCER CONTROL, SURVIVORSHIP, AND OUTCOMES RESEARCH

Fear of cancer recurrence after curative pancreatectomy: a cross-sectional study

<http://www.ncbi.nlm.nih.gov/pubmed/22875648>

- **Journal:** *Annals of Surgical Oncology*
- **Institution(s):** The University of Texas MD Anderson Cancer Center, Houston, TX and others
- **Corresponding author(s):** Matthew Katz
- **PanCAN affiliated authors:**
 - First author Maria Petzel, RD, CSO, LD, CNSC: Medical Advisory Board member
 - Middle author Jason Fleming, MD: Medical Advisory Board member
- **Major finding:** Fear of cancer recurrence represents a significant concern for one-third of patients after curative surgery for a pancreatic or periampullary tumor, regardless of their actual likelihood of recurrence or disease-related death.

Patient readmission and mortality after surgery for hepato-pancreato-biliary malignancies

<http://www.ncbi.nlm.nih.gov/pubmed/22921328>

- **Journal:** *Journal of the American College of Surgeons*
- **Institution(s):** Johns Hopkins University, Baltimore, MD
- **Corresponding author(s):** Timothy Pawlik
- **PanCAN affiliated author:** Middle author Joseph Herman, MD: 2008 Blum-Kovler – Career Development Award
- **Major finding:** Although the incidence of readmission did not change across the time periods examined, readmission was higher among patients undergoing a pancreatic procedure vs. a hepatobiliary procedure. Other factors associated with risk of readmission included number of patient comorbidities and prolonged hospital stay. Readmission was associated with additional short-term morbidity and mortality.

Contemporary experience with postpancreatectomy hemorrhage

<http://www.ncbi.nlm.nih.gov/pubmed/22921325>

- **Journal:** *Journal of the American College of Surgeons*
- **Institution(s):** Memorial Sloan Kettering Cancer Center, New York, NY
- **Corresponding author(s):** Peter Allen
- **Major finding:** Postpancreatectomy hemorrhage can be managed successfully with low mortality. Early hemorrhage requires urgent reoperation, and management of delayed hemorrhage should be guided by location (intra- vs extraluminal). Greater pressure to reduce length of hospital stay appears to have increased the likelihood of postpancreatectomy hemorrhage occurring after discharge; patients and physicians should be aware of this possibility.

Incidence and predictors of venous thromboembolism among ambulatory high-risk cancer patients

<http://www.ncbi.nlm.nih.gov/pubmed/22893596>

- **Journal:** *Cancer*
- **Institution(s):** University of Rochester, Rochester, NY and others
- **Corresponding author(s):** Alok Khorana
- **Major finding:** Data of venous thromboembolism (VTE) in ambulatory cancer patients undergoing chemotherapy were extracted from a large health care claims database of commercially insured patients in the United States between 2004 and 2009. The analysis confirmed high rates of VTE in select patients with solid tumors, with highest rates observed in pancreatic cancer patients, and suggested that the incidence of VTE is high in the real-world setting, and highlights the need for awareness of the benefits of targeted thromboprophylaxis.

Relative quality of internet-derived gastrointestinal cancer information

<http://www.ncbi.nlm.nih.gov/pubmed/22918796>

- **Journal:** *Journal of Cancer Education*
- **Institution(s):** University Hospital of Wales, Heath Park, Cardiff, UK
- **Corresponding author(s):** Wyn Lewis
- **Major finding:** The aim of this study was to assess the information available regarding common gastrointestinal cancers via three internet search engines, and the top 30 websites for each of the terms: oesophageal, gastric, pancreatic, colon and rectal cancer were evaluated and scored. Overall quality of internet-derived gastrointestinal cancer information remains poor and patients and clinicians should be aware.

The paradox of increased efficacy and end-of-life care

http://www.clinicaloncology.com//ViewArticle.aspx?ses=ogst&d=Policy+and+Management&d_id=151&i=ISSUE%3a+August+2012&i_id=879&a_id=21499

This *Clinical Oncology News* commentary focuses on the complex and often emotionally charged conflict between a patient's desire to "fight the cancer" and his or her unquestionably valid need to focus on end-of-life issues at some point in time. Dr. Markman uses a metastatic pancreatic cancer diagnosis as an example of this paradox.

To treat the cancer, treat the distress

<http://online.wsj.com/article/SB10000872396390444914904577615291424503430.html>

This *Wall Street Journal* article states: "With growing evidence that distress can negatively affect patient outcomes, there's a new mandate to make screening for it part of routine care. Starting in 2015, the Commission on Cancer, which accredits centers that treat about 70% of all new cancers diagnosed in the U.S., will require providers to meet a new standard to evaluate patients for distress and refer them to programs for help."