PANCREATIC CANCER NEWS & UPDATES – SEPTEMBER 2013

PANCREATIC CANCER ACTION NETWORK AND COMMUNITY NEWS

Pancreatic Cancer Action Network news:

Progress Matters: Advancing Research to Fight Pancreatic Cancer

https://pancan.webex.com/mw0307l/mywebex/default.do?nomenu=true&siteurl=pancan&service=6&rnd=0.5149545414039536&main_url=https%3A%2F%2Fpancan.webex.com%2Fec0606l%2Feventcenter%2Fevent%2FeventAction.do%3FtheAction%3Ddetail%26confViewID%3D1004409635%26%26%26%26siteurl%3Dpancan

You are invited to a webinar on Wednesday, November 6, 11 a.m. - noon Pacific Time, to learn about our progress in the fight against pancreatic cancer. Featured speakers are the Pancreatic Cancer Action Network's Julie Fleshman, JD, MBA, president and CEO, Lynn Matrisian, PhD, MBA, vice president of scientific & medical affairs, and Anirban Maitra, MBBS, chair, Scientific Advisory Board. Click the link above to register and spread the word!

Pancreatic Cancer Action Network joins organizations: Ask Congress to protect research funding

http://pancan.org/section_about/news_press_center/2013_press_releases/09_17_13_pr.php#.UjicsqPn-Uk

The Pancreatic Cancer Action Network joined more than 160 organizations on Capitol Hill on September 18, 2013 to call on Congress to protect federal funding for medical research. Special guest Lisa Niemi Swayze, Chief Ambassador of Hope at the Pancreatic Cancer Action Network, was among the attendees. The Pancreatic Cancer Action Network was a sponsor of the Rally for Medical Research Hill Day, which was organized by the American Association for Cancer Research (AACR), to raise awareness about recent cuts to the budgets of the (NIH) and National Cancer Institute (NCI).

Fighting cancer: From loss to action

http://www.jewishjournal.com/health/article/fighting_cancer_from_loss_to_action

The *Jewish Journal of Greater Los Angeles* ran this article, featuring Pamela Acosta Marquardt, founder of the Pancreatic Cancer Action Network, and director of donor relations.

Funding opportunities:

2014 Pancreatic Cancer Action Network grants

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

Career Development Awards: Application deadline: October 29, 2013

Pathway to Leadership Grants: Application deadline: October 29, 2013

Fellowships: Application deadline: October 29, 2013

Apply now! Spread the word!

New! **SU2C-Lustgarten Pancreatic Cancer Convergence Dream Team Translational Research Grant**
http://www.aacr.org/home/public--media/stand-up-to-cancer/stand-up-to-cancer-research-funding-opportunities.aspx#LF
Letter of Intent deadline: November 7, 2013, 12pm (noon) ET
The AACR, on behalf of Stand Up To Cancer (SU2C) and the Lustgarten Foundation, and the Fox Family Foundation, calls upon members of the cancer community to contribute their ideas to the groundbreaking SU2C-Lustgarten Foundation Pancreatic Cancer Convergence Dream Team Translational Research Grant. They invite submission of ideas for a translational cancer research project that addresses critical problems in pancreatic cancer patient care through convergence research.

New! **New funding opportunity – Illuminating the druggable genome**
http://proteomics.cancer.gov/newsevents/newsannouncements/archive/2013/druggablegenome
Letter of Intent deadline: November 11, 2013
Application deadline: December 11, 2013
The National Institutes of Health Common Fund announces two new Funding Opportunity Announcements with a focus on the Illuminating the Druggable Genome (IDG). These funding opportunities are designed to foster the development of technologies and information management to facilitate the unveiling of the functions of the poorly characterized and/or un-annotated members in four protein classes of the Druggable Genome.

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

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

Clinical Studies of Safety and Effectiveness of Orphan Products Research Project Grant (R01)
https://www.federalregister.gov/articles/2012/08/06/2012-19086/clinical-studies-of-safety-and-effectiveness-of-orphan-products-research-project-grant-r01#h-4
Application deadline: February 5, 2014
The Food and Drug Administration (FDA) is announcing the availability of grant funds for the support of FDA's Office of Orphan Products Development (OPD) grant program. The goal of FDA's OPD grant

program is to support the clinical development of products for use in rare diseases or conditions (defined as a disease or condition that has a prevalence, not incidence, of fewer than 200,000 people in the US) where no current therapy exists or where the proposed product will be superior to the existing therapy.

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

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:
Save the date: AACR Pancreatic Cancer special conference
http://www.aacr.org/home/scientists/meetings--workshops/meetings--workshops-calendar.aspx
May 18-21, 2014, New Orleans, LA

AACR Annual Meeting 2014: Abstracts
http://www.aacr.org/home/scientists/meetings--workshops/aacr-annual-meeting-2014/abstracts.aspx
Abstract submission deadline: Tuesday, December 3, 2013
Early registration deadline: Friday, December 20, 2013
The 105th Annual Meeting of the American Association for Cancer Research will be held April 5-9, 2014, in San Diego, California. As always, this AACR Annual Meeting will highlight the latest and most exciting discoveries in every area of cancer research, and it will provide a unique opportunity for investigators from all over the world to meet, network, and forge new scientific interactions.

AACR Annual Meeting 2014: Early-career speaker application
http://www.aacr.org/home/scientists/meetings--workshops/aacr-annual-meeting-2014/early-career-speaker-application.aspx
Application deadline: Friday, October 18, 2013
New in 2014, the AACR invites Associate Members and early-career Active or Affiliate members to apply to give a talk in a major session at the AACR Annual Meeting 2014.

AACR Annual Meeting 2014: Clinical research and clinical trials
http://www.aacr.org/home/scientists/meetings--workshops/aacr-annual-meeting-2014/spotlight-on-clinical-research-and-clinical-trials.aspx
Abbreviated abstracts deadline: January 27, 2014
Complete abstracts deadline: February 28, 2014
In 2014, there will be numerous opportunities to showcase cutting-edge clinical research including the Clinical Symposia, which offer a unique presentation format. Any phase I, II, or III clinical trials abstracts submitted for either the regular or the late-breaking deadline to the Clinical Trials (CT) category will be considered by the Program Committee for oral presentation in one of these clinical trials-focused sessions.

2014 Gastrointestinal Cancers Symposium
http://gicasym.org/
January 16-18, 2014, San Francisco, CA
Register and reserve hotel by December 11, 2013, at 11:59 PM (EST) for the best rates
The 2014 Gastrointestinal Cancers Symposium is a specialized meeting designed to highlight the latest science in cancers of the pancreas, small bowel, and hepatobiliary tract; colon and rectum; and esophagus and stomach. Now in its 11th year, the Symposium continues to offer a fresh perspective on gastrointestinal cancers, with a special focus on the most pertinent information oncologists of all subspecialties need to know now, in order to provide the highest quality of care.

2014 Annual Meeting: Save the Date for ASCO's 50th Anniversary
http://am.asco.org/?cmpid=nm_am_std_etoc_-_all_10-01-13_amhtml#Home
May 30-June 3, 2014, Chicago, IL

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.

Webcast: ESMO 15th World Congress on Gastrointestinal Cancer 2013
http://elc.imedex.com/ELC/Activity-Search.aspx?search=6822&hsCtaTracking=73a3eccc-2c81-419b-abad-bcdde79107c0%7Cc34589bc-e2c5-4120-917a-2019f9ac842e&utm_content=10292955&_hsenc=p2ANqtz-

_qOkY9exsGb8TvJbF5Sfgf9X__q1ZzbbRcDoFd1PqH_mh3NVjp6eA78qdBzYge81lvOQjLZaJuoGR9xKskx5bbxjtZag&utm_medium=email&utm_source=hs_email&_hsmi=10292955
This webcast includes most of the clinical presentations from this premier meeting. Didactic lectures, case studies, debates, and cutting-edge research from expert international faculty comprise the outstanding content of the World Congress.

Other community news:

AACR Cancer Progress Report 2013: ***Making research count for patients: A continual pursuit***
http://cancerprogressreport.org/2013/Documents/2013_AACR_CPR_FINAL.pdf
This third AACR Cancer Progress Report to Congress and the American public seeks again to serve as a comprehensive educational tool that illustrates the astounding return on investment in cancer research and biomedical science, while also celebrating the many ways that we have continued to make research count for patients in the past year.

Delivering High-Quality Cancer Care: Charting a New Course for a System in Crisis
http://www.iom.edu/Reports/2013/Delivering-High-Quality-Cancer-Care-Charting-a-New-Course-for-a-System-in-Crisis.aspx
The Institute of Medicine (IOM) convened a committee of experts to examine the quality of cancer care in the United States and formulate recommendations for improvement. *Delivering High-Quality Cancer Care: Charting a New Course for a System in Crisis* presents the committee's findings and recommendations. The committee concluded that the cancer care delivery system is in crisis due to a growing demand for cancer care, increasing complexity of treatment, a shrinking workforce, and rising costs.

Every Life Matters: the real cost of pancreatic cancer diagnoses via emergency admission
http://www.pancreaticcancer.org.uk/media/450955/elm_policybriefing_final.pdf
Pancreatic Cancer UK has released research that shows if pancreatic cancer diagnoses as a result of emergency presentation were reduced to 25 per cent, and these patients were diagnosed via the Two Week Wait route, as many as 150 additional patients would survive for a year or longer. Even a modest reduction of 10 per cent would mean an increase of 50 additional pancreatic cancer patients surviving one year or more.

OHSU launches $25 million clinical and translational science initiative against pancreatic disease
http://www.ohsu.edu/xd/about/news_events/news/2013/09-11-ohsu-launches-25-million.cfm
Oregon Health & Science University has launched a clinical and translational science initiative to turn the tables on pancreatic disease. With support from a landmark $25 million philanthropic pledge, a team of OHSU's top pancreatic surgeons and Knight Cancer Institute scientists will co-develop new detection and treatment methods for pancreatic cancer while solving longstanding mysteries of pancreatic disease at the molecular level.

BIOLOGY OF CANCER

PAF and EZH2 induce Wnt/β-Catenin signaling hyperactivation
http://www.ncbi.nlm.nih.gov/pubmed/24055345

- Journal: *Molecular Cell*
- Institution(s): The University of Texas MD Anderson Cancer Center, Houston, TX
- Corresponding author(s): Jae-Il Park

- Pancreatic Cancer Action Network-affiliated author: Jae-Il Park, PhD: 2011 Career Development Award
- Major finding: The authors' studies reveal an unexpected role of PAF (proliferating cell nuclear antigen [PCNA]-associated factor) in regulating Wnt signaling and propose a regulatory mechanism of Wnt signaling during tumorigenesis.

Activated Wnt signaling in stroma contributes to development of pancreatic MCNs
http://www.ncbi.nlm.nih.gov/pubmed/24067880

- Journal: *Gastroenterology*
- Institution(s): University of Massachusetts Medical School, Worchester, MA and others
- Corresponding author(s): Makoto Sano and Brian Lewis
- Pancreatic Cancer Action Network-affiliated author: Brian Lewis, PhD: 2009 Constance Williams – Pilot Grant and 2006 Michael Landon – Career Development Award
- Major finding: Based on studies of mice and pancreatic mucinous cystic neoplasm (MCN) samples from patients, the canonical Wnt signaling pathway becomes activated and promotes development of the ovarian-like stroma to contribute to formation of MCNs.

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: 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.

Fundamentals of pyrosequencing
http://www.ncbi.nlm.nih.gov/pubmed/23991743

- Journal: *Archives of Pathology & Laboratory Medicine*
- Institution(s): Johns Hopkins University School of Medicine, Baltimore, MD
- Corresponding author(s): James Eshleman
- Pancreatic Cancer Action Network-affiliated author: James Eshleman, MD, PhD: 2011 Innovative Grant
- Major finding: The authors demonstrate how mutant and wild-type DNA sequences result in different pyrograms. Using pyrograms of established mutations in tumors, they explain how to analyze the pyrogram peaks generated by different dispensation sequences. Further, they demonstrate some limitations of pyrosequencing, including how some complex mutations can be indistinguishable from single base mutations. Pyrosequencing is the basis of the Roche 454 next-generation sequencer and many of the same principles also apply to the Ion Torrent hydrogen ion-based next-generation sequencers.

miR-204 mediated loss of Myeloid cell leukemia-1 results in pancreatic cancer cell death
http://www.ncbi.nlm.nih.gov/pubmed/24025188

- Journal: *Molecular Cancer*
- Institution(s): University of Minnesota, Minneapolis, MN and others
- Corresponding author(s): Ashok Saluja
- Pancreatic Cancer Action Network-affiliated author: Selwyn Vickers, PhD: member, Emeritus Scientific Advisory Board
- Major finding: The authors show that over-expression of Mcl-1 in pancreatic patient tumor samples are linked to advancement of the disease. Decrease of Mcl-1 levels, either by siRNA or by treatment with triptolide (a diterpene triepoxide) results in cell death.

MicroRNA-141, downregulated, inhibited cell proliferation and invasion by directly targeting MAP4K4
http://www.ncbi.nlm.nih.gov/pubmed/24013097

- Journal: *Molecular Cancer Therapeutics*
- Institution(s): Huazhong University of Science and Technology, Hubei Province, China
- Corresponding author(s): Gang Zhao
- Major finding: The authors conclude that miR-141 targets MAP4K4 and acts as a tumor suppressor in pancreatic cancer cells, and may serve as a novel therapeutic agent for miRNA-based pancreatic cancer therapy.

Integrative genomic and functional profiling of the pancreatic cancer genome
http://www.ncbi.nlm.nih.gov/pubmed/24041470

- Journal: *BMC Genomics*
- Institution(s): Stanford University School of Medicine, Stanford, CA
- Corresponding author(s): Jonathan Pollack
- Major finding: By integrating physical and functional genomic data, the authors were able to simultaneously evaluate many candidate pancreatic cancer genes. The authors' findings uncover new facets of pancreatic cancer biology, with possible therapeutic implications. More broadly, their study provides a general strategy for the efficient characterization of candidate genes emerging from cancer genome studies.

Characterization of gene expression, signaling pathways in solid-pseudopapillary pancreas neoplasm
http://www.ncbi.nlm.nih.gov/pubmed/24072181

- Journal: *Modern Pathology*
- Institution(s): Yonsei University College of Medicine, Seoul, Korea
- Corresponding author(s): Hoguen Kim
- Major finding: The authors' results provide insight into the molecular mechanisms underlying solid-pseudopapillary neoplasm tumorigenesis and its characteristic less epithelial cell differentiation than the other common pancreatic tumors.

Genetic inactivation of Nupr1 acts as a dominant suppressor event in a two-hit model
http://www.ncbi.nlm.nih.gov/pubmed/24026351

- Journal: *Gut*
- Institution(s): Centre de Recherche en Carcérologie de Marseille, Marseille, France and others
- Corresponding author(s): Juan Iovanna

- Major finding: According to *Nupr1* (nuclear protein 1) status, *KIC* (*Pdx1-cre;LSL-Kras^{G12D};Ink4a/Arf$^{fl/fl}$*) mice develop tumors that phenocopy human classical or quasi-mesenchymal pancreatic ductal adenocarcinoma, respectively, and present differential drug sensitivity, thus becoming attractive models for preclinical drug trials.

Trisomy of the Dscr1 gene suppresses early progression of PanIN driven by oncogenic Kras
http://www.ncbi.nlm.nih.gov/pubmed/24041692

- Journal: *Biochemical and Biophysical Research Communications*
- Institution(s): Sungkyunkwan University School of Medicine, Suwon, Republic of Korea
- Corresponding author(s): Kwan-Hyuck Baek
- Major finding: The authors' data suggest that attenuation of calcineurin–NFAT (nuclear factor of activated T-cells) signaling in neoplastic pancreatic ductal epithelium by a single extra copy of Down syndrome critical region-1 (Dscr1) is sufficient to inhibit the progression of early pancreatic intraepithelial neoplasia (PanIN) lesions driven by oncogenic Kras, and thus may be a potential mechanism underlying reduced incidence of pancreatic cancer in Down syndrome individuals.

Ran GTPase promotes pancreatic cancer proliferation by deregulating Survivin and cell cycle proteins
http://www.ncbi.nlm.nih.gov/pubmed/24076388

- Journal: *Biochemical and Biophysical Research Communications*
- Institution(s): Fourth Military Medical University, Xi'an, Shaanxi, China
- Corresponding author(s): Daiming Fan or Xuegang Guo
- Major finding: Ran, a member of the Ras GTPase family, has important roles in nucleocytoplasmic transport. The authors detected Ran expression in pancreatic cancer and explored its potential role on tumour progression. Overexpressed Ran in pancreatic cancer tissues was found highly correlated with the histological grade.

PIAS4 is an activator of hypoxia signalling via VHL suppression during growth of pancreatic cancer cells
http://www.ncbi.nlm.nih.gov/pubmed/24002598

- Journal: *British Journal of Cancer*
- Institution(s): National University of Singapore, Singapore, Singapore
- Corresponding author(s): Wenwen Chien
- Major finding: The PIAS4 protein belongs to the family of protein inhibitors of activated STAT, but has since been implicated in various biological activities including the post-translational modification known as sumoylation. The authors' study elucidates the role of PIAS4 in the regulation of pancreatic cancer cell growth, where the suppression of its activity represents a novel therapeutic target for pancreatic cancers.

Cyclic AMP regulates the migration and invasion potential of human pancreatic cancer cells
http://www.ncbi.nlm.nih.gov/pubmed/24115212

- Journal: *Molecular Carcinogenesis*
- Institution(s): The Medical College of Wisconsin Cancer Center, Milwaukee, WI
- Corresponding author(s): Michael Dwinell
- Major finding: Collectively these data support the notion that increased levels of cAMP specifically hinder pancreatic ductal adenocarcinoma cell motility through F-actin remodeling.

Role of epithelial-mesenchymal transition: Is tumor budding the missing link?
http://www.ncbi.nlm.nih.gov/pubmed/24062980

- Journal: *Frontiers in Oncology*
- Institution(s): University of Bern, Bern, Switzerland
- Corresponding author(s): Eva Karamitopoulou
- Major finding: The aim of this short review is to present an insight on the morphological and molecular aspects of epithelial-mesenchymal transition (EMT) and on the factors that are involved in the induction of EMT in pancreatic ductal adenocarcinoma.

Emerging targets in pancreatic cancer: epithelial-mesenchymal transition and cancer stem cells
http://www.ncbi.nlm.nih.gov/pubmed/24049451

- Journal: *OncoTargets and Therapy*
- Institution(s): Vanderbilt University School of Medicine, Nashville, TN
- Corresponding author(s): Nagaraj Nagathihalli
- Major finding: The authors review the key pathways involved in both of these processes, the biomarkers used to identify cancer stem cells (CSCs), and new therapeutic approaches targeting CSCs and epithelial–mesenchymal transition (EMT) in pancreatic ductal adenocarcinoma.

Overview on how oncogenic Kras promotes pancreatic carcinogenesis by low intracellular ROS levels
http://www.ncbi.nlm.nih.gov/pubmed/24062691

- Journal: *Frontiers in Oncology*
- Institution(s): Technische Universität München, Munich, Germany and others
- Corresponding author(s): Christoph Michalski
- Major finding: In adult stem cells and cancer stem cells, low reactive oxygen species (ROS) levels have been associated with the formation of a proliferation-permissive intracellular environment and with perseverance of self-renewal capacities. Therefore, it is conceivable that low intracellular ROS levels may contribute significantly to oncogenic Kras-mediated pancreatic ductal adenocarcinoma formation.

Carcinogenesis of pancreatic adenocarcinoma: Precursor lesions
http://www.ncbi.nlm.nih.gov/pubmed/24084722

- Journal: *International Journal of Molecular Sciences*
- Institution(s): Hospital Vito Fazzi, Lecce, Italy
- Corresponding author(s): Nicola Silvestris
- Major finding: This review summarizes current knowledge of pancreatic carcinogenesis from its initiation within a normal cell until the time that it has disseminated to distant organs. In this scenario, highlighting these molecular alterations could provide new clinical tools for early diagnosis and new effective therapies for this malignancy.

***Nature* Supplement: Tumour heterogeneity**
http://www.nature.com/nature/supplements/insights/tumour_heterogeneity/index.html?WT.ec_id=NATURE-20130919
Cancer is not one but many diseases, continuously evolving and different in each patient. This Insight covers key topics in cancer research, ranging from the basic understanding of tumor heterogeneity to translational research and clinical trials.

ETIOLOGY

Reproductive factors, exogenous hormones, and pancreatic cancer risk in the CTS

http://www.ncbi.nlm.nih.gov/pubmed/24008905

- Journal: *American Journal of Epidemiology*
- Institution(s): City of Hope National Medical Center, Duarte, CA
- Corresponding author(s): Leslie Bernstein
- Major finding: Reproductive factors, including age at menarche, parity, breastfeeding, and age at menopause, were not associated with pancreatic cancer risk. The authors' results suggest that increased estrogen exposure through estrogen-only therapy may reduce pancreatic cancer risk in women.

Association between ultraviolet radiation, skin sun sensitivity and risk of pancreatic cancer

http://www.ncbi.nlm.nih.gov/pubmed/24075798

- Journal: *Cancer Epidemiology*
- Institution(s): QIMR Berghofer Medical Research Institute, Australia and others
- Corresponding author(s): Bich Tran or Rachel Neale
- Major finding: This study suggests that people with light skin color or those born or living in areas of high ambient ultraviolet radiation (UVR) have lower risk of pancreatic cancer. The authors' analysis supports an association between UVR and pancreatic cancer, possibly mediated through production of vitamin D.

Vitamin D status and the risk of pancreatic cancer: a meta-analysis

http://www.ncbi.nlm.nih.gov/pubmed/24033964

- Journal: *Chinese Medical Journal*
- Institution(s): Chinese Academy of Medical Sciences and Peking Union Medical College, Beijing, China
- Corresponding author(s): Jian-wei Xu
- Major finding: Dietary vitamin D or circulating concentrations of 25-hydroxyvitamin D are not associated with the risk of pancreatic cancer based on evidence from currently published studies.

Non-linear dose-response relationship between cigarette smoking and pancreatic cancer risk

http://www.ncbi.nlm.nih.gov/pubmed/24054979

- Journal: *European Journal of Cancer*
- Institution(s): Huazhong University of Science and Technology, Wuhan, China and others
- Corresponding author(s): Xiaoping Miao
- Major finding: This meta-analysis reveals a non-linear dose–response association between cigarette smoking and pancreatic cancer risk, but it might differ between sexes.

PREVENTION

Novel combinatorial nanotechnology oral chemopreventive regimen suppresses pancreatic cancer

http://www.ncbi.nlm.nih.gov/pubmed/24072676

- Journal: *Cancer Prevention Research*
- Institution(s): Western University of Health Sciences, Pomona, CA
- Corresponding author(s): Sunil Prabhu

- Major finding: The authors report the results of a chemopreventive study with the oral administration of aspirin, curcumin, and sulforaphane (ACS) combinations to suppress the progression of pancreatic intraepithelial neoplasms (PanIN) using unmodified (free drug) combinations of ACS, and nanoencapsulated (solid lipid nanoparticles; SLN) combinations of aspirin, curcumin, and free sulforaphane. These studies provide a proof-of-concept for the use of an oral, low-dose, nanotechnology-based combinatorial regimen for the long-term chemoprevention of pancreatic cancer. See two related commentaries below.

Big punches come in nanosizes for chemoprevention
http://www.ncbi.nlm.nih.gov/pubmed/24072677

- Journal: *Cancer Prevention Research*
- Institution(s): Johns Hopkins University School of Medicine, Baltimore, MD
- Corresponding author(s): Saraswati Sukumar or Dipali Sharma
- Major finding: This article provides commentary on "Novel combinatorial ..." paper above. Grandhi and collagues show the efficacy of an oral, low dose, solid-lipid nanoparticles encapsulated curcumin and aspirin combined with free sulforaphane for long-term chemoprevention of pancreatic cancer in a carcinogen-induced hamster model. Reproducing this benefit in multiple cancer models, accompanied by development of intermediate markers of response will allow rapid translation of these findings. It will constitute the first successful multipronged attack at key pathways known to initiate and promote carcinogenesis.

Combination of chemopreventive agents in nanoparticles for cancer prevention
http://www.ncbi.nlm.nih.gov/pubmed/24072675

- Journal: *Cancer Prevention Research*
- Institution(s): Rutgers, The State University of New Jersey, Piscataway, NJ and others
- Corresponding author(s): Chung Yang
- Major finding: This article provides more commentary on "Novel combinatorial ..." paper above. In this commentary, the possible mechanisms of synergistic action among multiple chemopreventive agents and the use of stable nanoparticles for oral delivery are discussed. Also discussed is the importance of measuring tissue levels of the chemopreventive agents to understand the mode of action of these nanoparticles and to avoid toxicity.

EARLY DETECTION, DIAGNOSIS, AND PROGNOSIS

An absolute risk model to identify individuals at risk for pancreatic cancer in the general population
http://www.ncbi.nlm.nih.gov/pubmed/24058443

- Journal: *PLoS One*
- Institution(s): Sidney Kimmel Comprehensive Cancer Center at Johns Hopkins, Baltimore, MD and others
- Corresponding author(s): Alison Klein
- Pancreatic Cancer Action Network-affiliated authors:
    - Gloria Petersen, PhD: member, Scientific Advisory Board
    - Michael Goggins, MD: PI, 2013 Skip Viragh – Inaugural Research Acceleration Network Grant
- Major finding: Although absolute risk modeling using established risk factors may help to identify a group of individuals at higher than average risk of pancreatic cancer, the immediate clinical utility of the authors' model is limited. However, a risk model can increase awareness of the various risk factors for pancreatic cancer, including modifiable behaviors.

Integrated transcriptome, epigenome analysis identifies a novel candidate gene for pancreatic cancer
http://www.ncbi.nlm.nih.gov/pubmed/24053169

- Journal: *BMC Medical Genomics*
- Institution(s): National Cancer Institute, National Institutes of Health, Bethesda, MD and others
- Corresponding author(s): Laufey Amundadottir
- Pancreatic Cancer Action Network-affiliated author: Gloria Petersen, PhD: member, Scientific Advisory Board
- Major finding: As aldehyde dehydrogenase (ALDH) activity is a key feature of cancer stem cells, the authors' results indicate that a member of the ALDH superfamily, ALDH1A3, may be upregulated in pancreatic cancer, where it could mark pancreatic cancer stem cells.

Sensitive capture of circulating tumour cells by functionalized graphene oxide nanosheets
http://www.ncbi.nlm.nih.gov/pubmed/24077027

- Journal: *Nature Nanotechnology*
- Institution(s): University of Michigan, Ann Arbor, MI
- Corresponding author(s): Sunitha Nagrath
- Pancreatic Cancer Action Network-affiliated author: Diane Simeone, MD: 2010 The Randy Pausch Family – Innovative Grant and member, Scientific Advisory Board
- Major finding: The authors demonstrate an effective approach to isolating circulating tumor cells (CTCs) from blood samples of pancreatic, breast and lung cancer patients, by using functionalized graphene oxide nanosheets on a patterned gold surface. CTCs were captured with high sensitivity at a low concentration of target cells.

Acinar cell cystadenoma: benign neoplasm or non-neoplastic ballooning of acinar, ductal epithelium?
http://www.ncbi.nlm.nih.gov/pubmed/24076773

- Journal: *American Journal of Surgical Pathology*
- Institution(s): University of Pittsburgh Medical Center, Pittsburgh, PA and others
- Corresponding author(s): Aatur Singhi
- Pancreatic Cancer Action Network-affiliated author: Ralph Hruban, MD: member, Emeritus Scientific Advisory Board
- Major finding: Acinar cell cystadenoma (ACA) of the pancreas was initially described as a non-neoplastic cyst of the pancreas and, at that time, referred to as "acinar cystic transformation." The authors feel that the term cystadenoma, with its neoplastic connotation, does not seem to accurately reflect the histologic, immunohistochemical, or molecular features of these lesions. They suggest readopting the term "acinar cystic transformation" until the non-neoplastic versus neoplastic origin of these lesions can be resolved.

Branch duct intraductal papillary mucinous neoplasms: does cyst size change the tip of the scale?
http://www.ncbi.nlm.nih.gov/pubmed/24022439

- Journal: *Annals of Surgery*
- Institution(s): Harvard Medical School, Boston, MA
- Corresponding author(s): Carlos Fernandez-del Castillo
- Major finding: Expectant management of branch duct intraductal papillary mucinous neoplasms (BD-IPMN) following the old guidelines is safe, whereas caution is advised for larger lesions, even in the absence of worrisome features.

Molecular diagnostics of pancreatic cysts
http://www.ncbi.nlm.nih.gov/pubmed/24068205

- Journal: *Langenbeck's Archives of Surgery*
- Institution(s): University of Bonn, Bonn, Germany
- Corresponding author(s): Hanno Matthaei
- Major finding: In this review article, the authors summarize some of the salient recent advances in molecular diagnostics of pancreatic cysts. Herein, they put particular focus on the emerging field of biomarker research in pancreatic cyst fluid based on protein, DNA, and microRNA analyses.

Validation of 4 candidate pancreatic cancer serological biomarkers, improve performance of CA19.9
http://www.ncbi.nlm.nih.gov/pubmed/24007603

- Journal: *BMC Cancer*
- Institution(s): University of Toronto, Toronto, ON, Canada and others
- Corresponding author(s): Eleftherios Diamandis
- Major finding: Additional serum biomarkers, particularly syncollin (SYCN) and regenerating islet-derived 1 beta (REG1B), when combined with CA19.9, show promise as improved diagnostic indicators of pancreatic cancer, which therefore warrants further validation.

Applying PET to broaden diagnostic utility of clinically validated CA19.9 serum biomarker for oncology
http://www.ncbi.nlm.nih.gov/pubmed/24029655

- Journal: *The Journal of Nuclear Medicine*
- Institution(s): Memorial Sloan-Kettering Cancer Center, New York, NY and others
- Corresponding author(s): Jason Lewis
- Major finding: In this report, a general strategy to supplement some of the shortcomings of otherwise highly useful circulating biomarkers with immunoPET is described. To expedite the clinical validation of this model, a human monoclonal antibody to CA19.9 (a highly visible but partially flawed serum biomarker for several cancers) was radiolabeled and evaluated, and the compelling preclinical evidence suggests that the radiotracer may enhance the fidelity of diagnosis and staging of pancreatic ductal adenocarcinoma, a notoriously occult cancer.

Performance characteristics of endoscopic ultrasound in staging of pancreatic cancer: a meta-analysis
http://www.ncbi.nlm.nih.gov/pubmed/24018593

- Journal: *Journal of the Pancreas*
- Institution(s): University of Pittsburgh, Pittsburgh, PA
- Corresponding author(s): Haq Nawaz
- Major finding: Endoscopic ultrasound (EUS) is an accurate pre-operative tool in the assessment of nodal staging, vascular invasion and resectability in patients with pancreatic cancer.

Metabolic system alterations in pancreatic cancer patient serum: potential for early detection
http://www.ncbi.nlm.nih.gov/pubmed/24024929

- Journal: *BMC Cancer*
- Institution(s): Phenomenome Discoveries, Inc., Saskatoon, SK, Canada and others
- Corresponding author(s): Shawn Ritchie

- Major finding: The serum metabolome of pancreatic cancer (PC) patients is significantly altered. The utility of serum metabolite biomarkers, particularly PC-594, for identifying subjects with elevated risk of PC should be further investigated.

Autoantibodies to Ezrin are an early sign of pancreatic cancer in humans, genetically engineered mice
http://www.ncbi.nlm.nih.gov/pubmed/24010981

- Journal: *Journal of Hematology & Oncology*
- Institution(s): Azienda Ospedaliera Città della Salute e della Scienza di Torino, Turin, Italy and others
- Corresponding author(s): Francesco Novelli
- Major finding: A common mouse-to-human autoantibody signature, directed against six antigens identified by MALDI-TOF mass spectrometry, was determined. Of the six antigens, Ezrin displayed the highest frequency of autoantibodies in genetically engineered mice with early disease and in pancreatic ductal adenocarcinoma (PDAC) patients with resectable disease. Autoantibodies against Ezrin are induced early in PDAC and their combination with other serological markers may provide a predictive and diagnostic signature.

A differential microRNA profile distinguishes cholangiocarcinoma from pancreatic adenocarcinoma
http://www.ncbi.nlm.nih.gov/pubmed/24046106

- Journal: *Annals of Surgical Oncology*
- Institution(s): Ohio State University, Columbus, OH
- Corresponding author(s): Mark Bloomston
- Major finding: Cholangiocarcinoma has a distinct miRNA (miR) profile from pancreatic adenocarcinoma. Discrimination between these two tumor types may be possible with as few as seven miRs.

Clinical significance of serum COL6A3 in pancreatic ductal adenocarcinoma
http://www.ncbi.nlm.nih.gov/pubmed/24002763

- Journal: *Journal of Gastrointestinal Surgery*
- Institution(s): Thomas Jefferson University, Philadelphia, PA
- Corresponding author(s): Hwyda Arafat
- Major finding: The authors' data demonstrate for the first time the potential clinical significance of circulating COL6A3 (α3 chain of type VI collagen) in the diagnosis of pancreatic malignancy.

Epithelial splicing regulatory protein 1 is favorable prognostic factor that attenuates metastases
http://www.ncbi.nlm.nih.gov/pubmed/24077287

- Journal: *Oncogene*
- Institution(s): Nippon Medical School, Tokyo, Japan and others
- Corresponding author(s): Toshiyuki Ishiwata
- Major finding: Epithelial splicing regulatory protein 1 (ESRP1) regulates the expression pattern of FGFR-2 isoforms, attenuates cell growth, migration, invasion and metastasis, and is a favorable prognostic factor in pancreatic ductal adenocarcinoma (PDAC). Therefore, devising mechanisms to upregulate ESRP1 may exert a beneficial therapeutic effect in PDAC.

Expression of CD44v6, integrin-β1 for prognosis of pancreatic cancer patients after cryosurgery
http://www.ncbi.nlm.nih.gov/pubmed/24004467

- Journal: *Diagnostic Pathology*
- Institution(s): Chinese Academy of Sciences, Guangzhou, China and others
- Corresponding author(s): Kecheng Xu
- Major finding: CD44v6 and integrin-β1 mRNA and protein expression in blood may serve as biomarkers for the development and metastasis of pancreatic cancer (PC), and as prognostic indicators for PC. They may become useful predictors in assessing outcome of PC patients after cryosurgery.

Vitamin D deficiency and prognostics among patients with pancreatic adenocarcinoma
http://www.ncbi.nlm.nih.gov/pubmed/24011168

- Journal: *Journal of Translational Medicine*
- Institution(s): Washington University in St. Louis, St. Louis, MO and others
- Corresponding author(s): Andrea Wang-Gillam
- Major finding: Vitamin D insufficiency and deficiency were prevalent among patients with pancreatic adenocarcinoma. The vitamin D level appears to be prognostic for patients with advanced pancreatic adenocarcinoma, and its effects should be further examined in a prospective study.

Decreased TIP30 expression predicts poor prognosis in pancreatic cancer patients
http://www.ncbi.nlm.nih.gov/pubmed/24037692

- Journal: *International Journal of Cancer*
- Institution(s): The Second Military Medical University, Shanghai, People's Republic of China and others
- Corresponding author(s): Jian Zhao or Xiangui Hu
- Major finding: The authors' work reveals that decreased TIP30 (a newly identified tumor suppressor) expression is able to enhance invasion and metastasis of pancreatic cancer cells through upregulation of the Snail family members and may serve as an independent predictor for poor outcomes in pancreatic ductal adenocarcinoma patients.

Elevated expression of tumor miR-222 in pancreatic cancer is associated with Ki67 and poor prognosis
http://www.ncbi.nlm.nih.gov/pubmed/24026657

- Journal: *Medical Oncology*
- Institution(s): Huashan Hospital affiliated to Fudan University, Shanghai, China
- Corresponding author(s): Deliang Fu
- Major finding: This study provides the first evidence of a potential link between Ki67 and micro-RNA-222, which are both relevant to cell proliferation. The authors' data suggest the potential of micro-RNA-222 as a prognostic biomarker for the pancreatic cancer.

Presence of tumour-associated lymphocytes confers good prognosis in pancreatic adenocarcinoma
http://www.ncbi.nlm.nih.gov/pubmed/24063854

- Journal: *BMC Cancer*
- Institution(s): Queen's Medical Centre, Nottingham, UK
- Corresponding author(s): Dileep Lobo
- Major finding: This study has shown a correlation between the presence of tumor-associated lymphocytes and survival in pancreatic ductal adenocarcinoma.

Prognostic significance of EGFR overexpression in pancreas cancer and nodal metastasis
http://www.ncbi.nlm.nih.gov/pubmed/24112413

- Journal: *ANZ Journal of Surgery*
- Institution(s): University of Sao Paulo Medical School, Sao Paulo, Brazil
- Corresponding author(s): Marcos Vinicius Perini
- Major finding: Epidermal growth factor receptor (EGFR) overexpression was determined by immunohistochemistry, and the pattern of expression was compared between the primary tumour, adjacent normal pancreas and involved lymph nodes. Positive membrane EGFR overexpression is associated with decreased survival; however, it is not an independent prognostic factor.

Discovery of novel candidate oncogenes in pancreatic carcinoma using high-throughput microarrays
http://www.ncbi.nlm.nih.gov/pubmed/24025263

- Journal: *Hepato-Gastroenterology*
- Institution(s): Zhejiang University, Hangzhou, China and others
- Corresponding author(s): Yegui Jiang
- Major finding: The authors believe by unraveling the gene disregulation profiles in pancreatic tumor tissues can we achieve an early and precise diagnosis of pancreatic cancer. Moreover, these newly found genes, due to their functions involved in cell migration and mitosis, may play major roles in tumorigenesis.

CD40 expression in pancreatic cancer
http://www.ncbi.nlm.nih.gov/pubmed/24052487

- Journal: *Hepato-Gastroenterology*
- Institution(s): Dokuz Eylul University School of Medicine, Balcova, Izmir, Turkey
- Corresponding author(s): Ibrahim Astarcioglu
- Major finding: These results suggest that CD40 expression on pancreatic cancer cells and peritumoral lymphocytic reaction may serve as prognostic markers.

New risk factors proposed for pancreatic cancer
http://www.medscape.com/viewarticle/811711

- Meeting: American Society for Clinical Pathology 2013 Annual Meeting
- Institution: University of Missouri School of Medicine, Columbia, MO
- Major finding: A novel risk-stratification system for endoscopic ultrasonography-guided fine-needle aspiration cytology results can help determine whether a pancreatic lesion is malignant, according to a new study. The proposed system evaluates 3 morphologic criteria: anisonucleosis, defined as a size variation in the cell nuclei of at least 4 times; single atypical epithelial cells; and mucinous metaplasia.

Myriad Genetics Launches myRisk™ Hereditary Cancer panel
http://investor.myriad.com/releasedetail.cfm?ReleaseID=788983
Myriad Genetics, Inc. announced that it has launched myRisk Hereditary Cancer, a new multi-gene diagnostic test that will provide increased sensitivity by analyzing 25 genes associated with eight major cancers including: breast, colorectal, ovarian, endometrial, pancreatic, prostate, gastric and melanoma.

TREATMENT

U.S. FDA approves ABRAXANE® with gemcitabine, first-line treatment in metastatic pancreatic cancer
http://newsroom.celgene.com/press-release/product/us-food-and-drug-administration-approves-abraxane-combination-gemcitabine-firs
Pancreatic Cancer Action Network press release:
http://pancan.org/section_about/news_press_center/2013_press_releases/09_06_13_pr.php#.Ui3sraPn-Uk
Celgene Corporation announced that the U.S. Food and Drug Administration (FDA) has approved the Company's supplemental New Drug Application (sNDA) of ABRAXANE® (paclitaxel protein-bound particles for injectable suspension) (albumin-bound) as first–line treatment for patients with metastatic adenocarcinoma of the pancreas, in combination with gemcitabine. Julie Fleshman, president and CEO of the Pancreatic Cancer Action Network, is quoted in the Celgene press release.

SPARC independent drug delivery, antitumour effects of nab-paclitaxel in genetically engineered mice
http://www.ncbi.nlm.nih.gov/pubmed/24067278

- Journal: *Gut*
- Institution(s): The University of Cambridge, 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: *nab*-Paclitaxel accumulates and acts in a dose-dependent manner. The interaction of plasma SPARC- (secreted protein acidic and rich in cysteine) and albumin-bound drugs is observed at low doses of *nab*-paclitaxel but is saturated at therapeutic doses in murine tumors. Thus, this study provides important information for future preclinical and clinical trials in pancreatic ductal adenocarcinoma using *nab*-paclitaxel in combination with novel experimental and targeted agents.

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

- Journal: *Journal of Immunotherapy*
- Institution(s): Johns Hopkins University, Baltimore, MD
- Corresponding author(s): Daniel Laheru
- Pancreatic Cancer Action Network-affiliated authors:
    - Eric Lutz, PhD: 2013 Career Development Award
    - Elizabeth Jaffee, MD: member, Emeritus Scientific Advisory Board
- Major finding: Checkpoint blockade in combination with GM-CSF cell-based vaccines (GVAX) has the potential for clinical benefit and should be evaluated in a larger study.

Cracking the stone: combination vaccination and CTLA-4 blockade in pancreatic cancer
http://www.ncbi.nlm.nih.gov/pubmed/23924787

- Journal: *Journal of Immunotherapy*
- Institution(s): University of Pennsylvania, Philadelphia, PA
- Corresponding author(s): Robert Vonderheide
- Pancreatic Cancer Action Network-affiliated author: Robert Vonderheide, MD, DPhil: PI, 2013 Tempur-Pedic – Inaugural Research Acceleration Network Grant in memory of Tim Miller and member, Scientific Advisory Board

- Major finding: Drs. Bajor and Vonderheide provide a commentary on the ipilimumab/GVAX paper listed above.

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

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

Immunotherapy at Large: The road to personalized cancer vaccines
http://www.ncbi.nlm.nih.gov/pubmed/24013748

- Journal: *Nature Medicine*
- Institution(s): University of Pennsylvania, Philadelphia, PA
- Corresponding author(s): Robert Vonderheide
- Pancreatic Cancer Action Network-affiliated author: Robert Vonderheide, MD, DPhil: PI, 2013 Tempur-Pedic – Inaugural Research Acceleration Network Grant in memory of Tim Miller and member, Scientific Advisory Board
- Major finding: In 'Bedside to Bench', Drs. Vonderheide and Nathanson discuss the potential of cancer genomics to identify specific tumor mutations in patients that may be used as targets in cancer vaccines to overcome problems linked to self-antigen epitopes used nowadays.

Novel role of VMP1 as modifier of the pancreatic tumor cell response to chemotherapeutic drugs
http://www.ncbi.nlm.nih.gov/pubmed/23460482

- Journal: *Journal of Cellular Physiology*
- Institution(s): Cancer Research Center of Marseille, INSERM U624, Marseille, France and others
- Corresponding author(s): Raul Urrutia or Juan Iovanna
- Pancreatic Cancer Action Network-affiliated author: Martin Fernandez-Zapico, MD: 2007 Carole and Bob Daly – Career Development Award
- Major finding: These results underscore a novel role for VMP1, a stress-induced autophagy-associated protein, as a potential therapeutic target for combinatorial therapies aimed at sensitizing pancreatic cancer cells to chemotherapeutic agents as well as provide novel molecular mechanisms to better understand this phenomenon.

Phase II study of dasatinib (BMS-354825) in patients with metastatic adenocarcinoma of the pancreas
http://www.ncbi.nlm.nih.gov/pubmed/24072218

- Journal: *The Oncologist*
- Institution(s): Case Western Reserve University, Cleveland, OH and others
- Corresponding author(s): Cheng Chee

- Major finding: Single-agent dasatinib does not have clinical activity in metastatic pancreatic ductal adenocarcinoma.

Phase I study evaluating treatment of locally advanced pancreatic cancer w/ carbon ion radiotherapy
http://www.ncbi.nlm.nih.gov/pubmed/24034562

- Journal: *BMC Cancer*
- Institution(s): University Hospital of Heidelberg, Heidelberg, Germany
- Corresponding author(s): Stephanie Combs
- Major finding: The present PHOENIX-01 trial evaluates carbon ion radiotherapy using the active rasterscanning technique in patients with advanced pancreatic cancer in combination with weekly gemcitabine and adjuvant gemcitabine. The physical and biological properties of the carbon ion beam promise to improve the therapeutic ratio in patients with pancreatic cancer. This is the first trial to evaluate actively delivered carbon ion beams in patients with locally advanced pancreatic cancer within a dose-escalation strategy.

A retrospective study of S-1, oxaliplatin combination chemotherapy in refractory pancreatic cancer
http://www.ncbi.nlm.nih.gov/pubmed/23995699

- Journal: *Cancer Chemotherapy and Pharmacology*
- Institution(s): The University of Tokyo, Tokyo, Japan
- Corresponding author(s): Hiroyuki Isayama
- Major finding: The aim of this study was to evaluate S-1 and oxaliplatin combination chemotherapy (SOX) in patients with refractory pancreatic cancer (PC). SOX was well tolerated and moderately effective in patients with refractory PC.

Outcomes with FOLFIRINOX for borderline resectable and locally unresectable pancreatic cancer
http://www.ncbi.nlm.nih.gov/pubmed/23955427

- Journal: *Journal of Surgical Oncology*
- Institution(s): University of Pittsburgh, Pittsburgh, PA
- Corresponding author(s): Nathan Bahary
- Major finding: The authors conducted a retrospective review of outcomes of patients with borderline resectable or locally unresectable pancreatic cancer who were recommended to undergo neoadjuvant treatment with FOLFIRINOX. FOLFIRINOX is a biologically active regimen in borderline resectable and locally unresectable pancreatic cancer with encouraging R0 resection and pathologic response rates.

Sequential gemcitabine and platinum versus first-line combination of gemcitabine and platinum
http://www.ncbi.nlm.nih.gov/pubmed/24077663

- Journal: *International Journal of Clinical Oncology*
- Institution(s): National Taiwan University Hospital, Yunlin, Taiwan
- Corresponding author(s): Shih-Hung Yang
- Major finding: First-line gemcitabine and platinum-based combinations were not superior to sequential gemcitabine and platinum for overall survival. The best sequence of chemotherapy for advanced pancreatic cancer should be explored in future clinical trials.

From bench to bedside: Lessons learned in translating preclinical studies in cancer drug development
http://www.ncbi.nlm.nih.gov/pubmed/24052618

- Journal: *Journal of the National Cancer Institute*

- Institution(s): University of Colorado, Aurora, CO
- Corresponding author(s): Christopher Lieu
- Major finding: The development of targeted agents in oncology has rapidly expanded over the past 2 decades and has led to clinically significant improvements in the treatment of numerous cancers. Unfortunately, not all success at the bench in preclinical experiments has translated to success at the bedside. This review will provide examples of lessons learned from prior preclinical studies used in the development of targeted agents and addresses strategies moving forward.

Trends in the treatment of resectable pancreatic adenocarcinoma
http://www.ncbi.nlm.nih.gov/pubmed/24002769

- Journal: *Journal of Gastrointestinal Surgery*
- Institution(s): Case Western Reserve University, Cleveland, OH
- Corresponding author(s): Jeffrey Hardacre
- Major finding: Data from the National Cancer Database (NCDB) from 2003 to 2010 illustrate changes in the adjuvant treatment of pancreatic cancer. The use of chemotherapy alone as adjuvant therapy increased whereas the use of multimodality therapy decreased. In addition, there remains an alarmingly high rate of nonsurgical therapy for stage I and II disease.

Adjuvant treatments resected pancreatic adenocarcinoma: systematic review, network meta-analysis
http://www.ncbi.nlm.nih.gov/pubmed/24035532

- Journal: *The Lancet Oncology*
- Institution(s): National Taiwan University College of Medicine, Taipei, Taiwan and others
- Corresponding author(s): Yu-Kang Tu
- Major finding: Chemotherapy with fluorouracil or gemcitabine is the optimum adjuvant treatment for pancreatic adenocarcinoma and reduces mortality after surgery by about a third. Chemoradiation plus chemotherapy is less effective in prolonging survival and is more toxic than chemotherapy.

Updated outcomes, prognostic factors: patients with unresectable locally advanced pancreatic cancer
http://www.ncbi.nlm.nih.gov/pubmed/24006012

- Journal: *Cancer*
- Institution(s): Harvard Medical School, Boston, MA and others
- Corresponding author(s): Jennifer Wo
- Major finding: Well-selected patients with locally advanced pancreatic cancer with small tumors and low Charlson age-comorbidity indices can achieve good long-term survival outcomes with a treatment regimen that incorporates chemotherapy and intraoperative radiotherapy.

Pancreatectomy versus conservative management for pancreatic cancer: A question of lead-time bias
http://www.ncbi.nlm.nih.gov/pubmed/24064752

- Journal: *American Journal of Clinical Oncology*
- Institution(s): Ottawa Hospital Research Institute, Ottawa, ON, Canada
- Corresponding author(s): Wayne Kendal
- Major finding: A lead-time bias is hypothesized to explain the survival discrepancies seen between time from diagnosis and attained age analyses; the pancreatectomy cohort was diagnosed earlier, with less disease. If most of these individuals had occult metastases at

diagnosis, which manifested later and caused death at similar ages as the nonsurgical cohort, their survival from time of diagnosis would appear speciously improved. A randomized controlled trial would be necessary to confirm whether or not the survival advantage ascribed to pancreatectomy should be attributed to lead-time bias.

Total laparoscopic pancreaticoduodenectomy
http://www.ncbi.nlm.nih.gov/pubmed/23925010

- Journal: *Journal of the Society of Laparoendoscopic Surgeons*
- Institution(s): St. John Providence Health, Southfield, MI
- Corresponding author(s): Michael Jacobs
- Major finding: Total laparoscopic pancreaticoduodenectomy (TLPD) is a viable alternative to the standard Whipple procedure. The authors' early experience suggests decreased length of stay, quicker recovery, and improved quality of life. Complication rates appear to be improved or equivalent.

Laparoscopic surgery is applicable for larger mucinous cystic neoplasms of the pancreas
http://www.ncbi.nlm.nih.gov/pubmed/24027109

- Journal: *Journal of Hepato-Biliary-Pancreatic Sciences*
- Institution(s): Kyushu University, Fukuoka, Japan
- Corresponding author(s): Masao Tanaka
- Major finding: Laparoscopic surgery can be completed in all patients with benign mucinous cystic neoplasms (MCN), even those with large tumors, and patients with small MCN can get the additional benefit of spleen preservation.

Neoadjuvant radiation therapy and its impact on complications after pancreaticoduodenectomy
http://www.ncbi.nlm.nih.gov/pubmed/24112766

- Journal: *HPB*
- Institution(s): Providence Cancer Center, Portland, OR and others
- Corresponding author(s): Paul Hansen
- Major finding: The American College of Surgeons National Quality Improvement Program database was queried for the period 2005–2010 to assess complication rates following pancreaticoduodenectomy for pancreatic cancer. Neoadjuvant radiation therapy is not associated with an increase in complications after pancreaticoduodenectomy.

Predictive modeling of in vivo response to gemcitabine in pancreatic cancer
http://www.ncbi.nlm.nih.gov/pubmed/24068909

- Journal: *PLoS Computational Biology*
- Institution(s): University of Louisville, Louisville, KY
- Corresponding author(s): Lacey McNally or Hermann Frieboes
- Major finding: The authors conclude that this integrated experimental/computational approach may enhance understanding of pancreatic cancer behavior and its response to various chemotherapies, and, further, that such an approach could predict resistance based on pharmacokinetic measurements with the goal to maximize effective treatment strategies.

Inhibition of amyloid precursor protein processing enhances gemcitabine-mediated cytotoxicity
http://www.ncbi.nlm.nih.gov/pubmed/24022491

- Journal: *The Journal of Biological Chemistry*
- Institution(s): USF Health Byrd Alzheimer's Institute, Tampa, FL and others
- Corresponding author(s): Jaya Padmanabhan
- Major finding: The authors' results show that pancreatic cancer cells secrete high levels of sAPP-alpha, the α-secretase cleaved ectodomain fragment of Amyloid Precursor Protein (APP), as compared to normal non-cancerous cells. The results suggest that inhibition of sAPP-alpha generation might enhance the effectiveness of the existing chemotherapeutic regimen for a better outcome.

Macrophages mediate gemcitabine resistance by upregulating cytidine deaminase
http://www.ncbi.nlm.nih.gov/pubmed/23995783

- Journal: *Oncogene*
- Institution(s): Rambam Medical Center, Haifa, Israel
- Corresponding author(s): Ziv Gil
- Major finding: In this study, the authors show for the first time that tumor-associated macrophages (TAMs) can also induce chemoresistance of pancreatic ductal adenocarcinoma (PDA) by reducing gemcitabine-induced apoptosis. Modulation of macrophage trafficking or inhibition of cytidine deaminase (CDA) may offer a new strategy for augmenting the response of PDA to chemotherapy.

Targeting of NAD metabolism in pancreatic cancer cells: potential novel therapy for pancreatic tumors
http://www.ncbi.nlm.nih.gov/pubmed/24025713

- Journal: *Clinical Cancer Research*
- Institution(s): Mayo Clinic, Rochester, MN
- Corresponding author(s): Eduardo Chini
- Major finding: The authors' study demonstrates that nicotinamide adenine dinucleotide (NAD) metabolism is essential for pancreatic cancer cell survival and proliferation and that targeting NAD synthesis via the Nampt (rate limiting enzyme of the salvage pathway) pathway could lead to novel therapeutic treatments for pancreatic cancer.

A novel small-molecule inhibitor of Mcl-1 blocks pancreatic cancer growth in vitro and in vivo
http://www.ncbi.nlm.nih.gov/pubmed/24019208

- Journal: *Molecular Cancer Therapeutics*
- Institution(s): University of Michigan, Ann Arbor, MI and others
- Corresponding author(s): Zaneta Nikolovska-Coleska
- Major finding: Using a high throughput screening (HTS) approach, the authors have identified and validated several small molecule Mcl-1 inhibitors (SMIs). Here the authors describe a novel selective Mcl-1 SMI inhibitor, 2 (UMI-77). Collectively, these promising findings demonstrate the therapeutic potential of Mcl-1 inhibitors against pancreatic cancer and warrant further preclinical investigations.

Efficacy comparison of traditional Chinese medicine LQ vs. gemcitabine in a mouse model
http://www.ncbi.nlm.nih.gov/pubmed/23553901

- Journal: *Journal of Cellular Biochemistry*
- Institution(s): AntiCancer, Inc., San Diego, CA
- Corresponding author(s): Chengyu Wu or Robert Hoffman

- Major finding: The results indicate that traditional Chinese medicine can have non-toxic efficacy against metastatic pancreatic cancer comparable to gemcitabine in a clinically-relevant orthotopic mouse model.

Inhibiting STAT3 increases response to gemcitabine and delays progression of pancreatic cancer
http://www.ncbi.nlm.nih.gov/pubmed/24025152

- Journal: *Molecular Cancer*
- Institution(s): University of Texas Health Science Center at San Antonio, San Antonio, TX
- Corresponding author(s): James Freeman
- Major finding: This study suggests that signal transducer and activator of transcription-3 (STAT3) should be considered an important molecular target for therapy of pancreatic ductal adenocarcinoma for enhancing the response to gemcitabine.

Inhibition by homo-, heterocombinations of antibodies against EGF-receptor and its kin HER2/ErbB-2
http://www.ncbi.nlm.nih.gov/pubmed/24003140

- Journal: *PNAS*
- Institution(s): Weizmann Institute of Science, Rehovot, Israel
- Corresponding author(s): Michael Sela or Yosef Yarden
- Major finding: Because the only molecular targeted drug approved for pancreatic ductal adenocarcinoma is a kinase inhibitor specific to the epidermal growth factor receptor (EGFR), and this receptor collaborates with another kinase, called HER2 (human EGF-receptor 2), the authors assumed that agents targeting EGFR and/or HER2 would effectively retard pancreatic ductal adenocarcinoma. Both types of antibody combinations enhanced receptor degradation. Future efforts will examine the feasibility of each strategy and the potential of combining them to achieve sustained tumor inhibition.

Propofol induces apoptosis, increases gemcitabine sensitivity in vitro by inhibition of NF-κB activity
http://www.ncbi.nlm.nih.gov/pubmed/24023491

- Journal: *World Journal of Gastroenterology*
- Institution(s): Shandong Provincial Hospital Affiliated to Shandong University, Shandong Province, China
- Corresponding author(s): Meng-Yuan Zhang
- Major finding: Inactivation of the NF-κB signaling pathway by propofol (an intravenous anesthetic) might abrogate gemcitabine-induced activation of NF-κB, resulting in chemosensitization of pancreatic tumors to gemcitabine.

Targeted radiation therapy safe, effective for elderly patients
http://www.henryford.com/body.cfm?id=46335&action=detail&ref=1967

- Meeting: 55th annual American Society for Radiation Oncology (ASTRO) meeting
- Institution: Henry Ford Hospital, Detroit, MI
- Major finding: A highly targeted cancer radiation therapy may offer a safe and effective treatment option for elderly pancreatic cancer patients unable to undergo surgery or combined chemotherapy and radiation therapy. Called stereotactic body radiotherapy (SBRT), the study finds patients lived, on average, six to seven months longer following treatment with minimal side-effects even when they had other severe comorbidities such as chronic obstructive pulmonary disease (COPD), heart disease and diabetes.

Halozyme presents PEGPH20 Phase 1b clinical trial data at European Cancer Congress 2013
http://www.halozyme.com/Investors/News-Releases/News-Release-Details/2013/Halozyme-Presents-PEGPH20-Phase-1b-Clinical-Trial-Data-at-European-Cancer-Congress-2013/default.aspx

- Meeting: 2013 European Cancer Congress (ESMO)
- Company: Halozyme Therapeutics, Inc., San Diego, CA
- Major finding: Halozyme Therapeutics, Inc. announced mature patient progression free survival (PFS) and ongoing overall survival (OS) data from a Phase 1b trial of PEGPH20 (PEGylated Recombinant Human Hyaluronidase) in combination with gemcitabine for the treatment of patients with stage IV metastatic pancreatic cancer. Sunil Hingorani, MD, PhD, recipient of a 2007 Pilot Grant and the 2005 Dr. Laurence A. Mack and Roselle Mack – Pancreatic Cancer Action Network – AACR Career Development Award, and member of our Scientific Advisory Board, is quoted in the press release as lead investigator on the study.

NewLink Genetics presents data demonstrating potential chemo-sensitization of HyperAcute™
http://investors.linkp.com/releasedetail.cfm?ReleaseID=793869

- Meeting: 2013 European Cancer Congress (ESMO)
- Company: NewLink Genetics Corporation, Ames, IA
- Major finding: NewLink researchers presented data showing greater than expected responses to salvage chemotherapy following treatment with both algenpantucel-L (HyperAccute pancreas) in patients with pancreatic cancer and tergenpumatucel-L in patients with non-small cell lung cancer (NSCLC). The clinical benefit of chemo-sensitization is being further investigated in a larger number of patients by assessing objective tumor responses to follow-on chemotherapy after HyperAcute immunotherapy in ongoing clinical trials.

TGen and Scottsdale Healthcare launch Phase I 'Thunder God vine' trial for cancer
https://www.tgen.org/news/2013-media-releases/tgen-shc-study-thunder-god-vine-as-cancer-therapy.aspx#.UlytLKPn_mJ
Taking a page from Chinese herbal medicine, Scottsdale Healthcare and the Translational Genomics Research Institute (TGen) initiated the first-in-human clinical trial for pancreatic cancer patients using a compound derived from a plant known as "Thunder God vine." A chemical compound called triptolide is among the more than 100 bioactive ingredients derived from the Thunder God vine. Preclinical studies showed a pharmaceutical version of triptolide called Minnelide proved effective against pancreatic cancer cells.

Systemic treatment of gastroenteropancreatic neuroendocrine tumors: approaches, future options
http://www.ncbi.nlm.nih.gov/pubmed/24014009

- Journal: *Endocrine Practice*
- Institution(s): H. Lee Moffitt Cancer Center and Research Institute, Tampa, FL
- Corresponding author(s): Jonathan Strosberg
- Major finding: New treatment options for gastroenteropancreatic neuroendocrine tumors (GEP-NETs) have become available, and highlight the necessity of developing predictive biomarkers which will allow for appropriate and individualized selection of therapy.

Everolimus in the treatment of patients with advanced pancreatic neuroendocrine tumors
http://www.ncbi.nlm.nih.gov/pubmed/24003341

- Journal: *Therapeutic Advances in Gastroenterology*
- Institution(s): Erasmus Medical Center, The Netherlands and others

- Corresponding author(s): Wouter de Herder
- Major finding: The authors compared whether the safety and efficacy of everolimus after prior treatment with 177Lu-octreotate is different from the published safety profile of everolimus in Gastro-Entero-Pancreatic Neuroendocrine Tumors (GEP-NETs). They found that the safety profile of everolimus is not influenced by previous treatment with peptide receptor radiotherapy.

Safety and efficacy of everolimus in gastrointestinal and pancreatic NETs after 177Lu-octreotate
http://www.ncbi.nlm.nih.gov/pubmed/24036133

- Journal: *Endocrine-Related Cancer*
- Institution(s): Vanderbilt University Medical Center, Nashville, TN and others
- Corresponding author(s): Kjell Öberg
- Major finding: Current studies indicate that there is strong evidence to support the antitumor effect of rapalogs in pancreatic neuroendocrine tumors. However, significant tumor reduction is very rarely obtained, usually in less than 10% of treated patients. Therefore, these drugs may be more effective in combination with other anticancer agents, including chemotherapy, targeted therapies as well as peptide receptor radiotherapy.

Sorafenib and bevacizumab combination targeted therapy in advanced neuroendocrine tumour
http://www.ncbi.nlm.nih.gov/pubmed/24012098

- Journal: *European Journal of Cancer*
- Institution(s): Hospital Universtitario, Madrid, Spain and others
- Corresponding author(s): Daniel Castellano
- Major finding: The purpose of this study was to evaluate the safety and efficacy of the combination of sorafenib and bevacizumab in patients with advanced neuroendocrine tumors. Sorafenib and bevacizumab combination showed clinical benefit but unfavorable safety results compared with drugs in monotherapy. Further development of this combination is not warranted and a sequential approach is recommended instead.

A retrospective study of capecitabine/temozolomide in metastatic pancreatic neuroendocrine tumors
http://www.ncbi.nlm.nih.gov/pubmed/24018594

- Journal: *Journal of the Pancreas*
- Institution(s): Tufts University School of Medicine, Boston, MA and others
- Corresponding author(s): Muhammad Wasif Saif
- Major finding: The authors' retrospective study showed that modified CAPTEM (capecitabine and temozolomide) regimen was well-tolerated and produced comparable response to historical data in neuroendocrine tumors, including pancreatic neuroendocrine tumors (pNETs). Their study is unique as it only included patients with pNETs. Further prospective studies are warranted to evaluate the combination of CAPTEM regimen with targeted therapies in pNETs.

Antiproliferative effects of lanreotide autogel in well-differentiated neuroendocrine tumours
http://www.ncbi.nlm.nih.gov/pubmed/24053191

- Journal: *BMC Cancer*
- Institution(s): Hospital de la Santa Creu y Sant Pau, Barcelona, Spain and others
- Corresponding author(s): Marta Martín-Richard

- Major finding: Somatostatin analogues (SSAs) are indicated to relieve carcinoid syndrome but seem to have antiproliferative effects on neuroendocrine tumors (NETs). This is the first prospective study investigating tumor stabilization with the long-acting SSA lanreotide Autogel in patients with progressive NETs. Lanreotide Autogel provided effective tumor stabilization and PFS >12 months in patients with progressive NETs ineligible for surgery or chemotherapy, with a safety profile consistent with the pharmacology of the class.

The use of targeted therapies in pancreatic neuroendocrine tumours
http://www.ncbi.nlm.nih.gov/pubmed/23997829

- Journal: *Therapeutic Advances in Medical Oncology*
- Institution(s): Northern Cancer Institute, Australia and others
- Corresponding author(s): Meredith Cummins
- Major finding: Together with the use of novel oral targeted therapies, a multidisciplinary approach can be used to effectively treat patients with advanced pancreatic neuroendocrine tumours (pNETs). Here the authors review the integration of the oncology nurse to the newly developed oral treatment setting for patients with pNETs.

CANCER CONTROL, SURVIVORSHIP, AND OUTCOMES RESEARCH

Trends in racial disparities in pancreatic cancer surgery
http://www.ncbi.nlm.nih.gov/pubmed/24002757

- Journal: *Journal of Gastrointestinal Surgery*
- Institution(s): Columbia University Medical Center, New York, NY and others
- Corresponding author(s): Mathias Worni
- Pancreatic Cancer Action Network-affiliated author: Rebekah White, MD: 2007 Seena Magowitz – Career Development Award
- Major finding: Although racial disparities in pancreatic cancer surgery refusal have diminished over the past two decades, significant disparities in the recommendation and performance of surgery persist. It is likely that both provider- and patient-level factors have a substantial impact on surgery recommendation and its acceptance. The identification of such factors is critical to design a framework for eliminating disparities in cancer-directed surgery for pancreatic cancer.

Race does not impact pancreatic cancer treatment, survival in equal access federal health care system
http://www.ncbi.nlm.nih.gov/pubmed/24002535

- Journal: *Annals of Surgical Oncology*
- Institution(s): University of Texas MD Anderson Cancer Center, Houston, TX and others
- Corresponding author(s): Sukhyung Lee
- Pancreatic Cancer Action Network-affiliated author: Jason Fleming, MD: member, Medical Advisory Board
- Major finding: The authors observed no disparities in either management or survival between white and black patients with pancreatic ductal adenocarcinoma (PDAC) treated in the Department of Defense's equal access health care system. These data suggest that improving the access of minorities with PDAC to health care may reduce disparities in their oncologic outcomes.

Marital status and survival in patients with cancer
http://www.ncbi.nlm.nih.gov/pubmed/24062405

- Journal: *Journal of Clinical Oncology*
- Institution(s): Harvard Medical School, Boston, MA and others
- Corresponding author(s): Paul Nguyen
- Major finding: Even after adjusting for known confounders, unmarried patients are at significantly higher risk of presentation with metastatic cancer, undertreatment, and death resulting from their cancer. This study highlights the potentially significant impact that social support can have on cancer detection, treatment, and survival.

Comparative study of 2 protocols for management of severe pain in unresectable pancreatic cancer
http://www.ncbi.nlm.nih.gov/pubmed/23917696

- Journal: *The Clinical Journal of Pain*
- Institution(s): Tanta University, Tanta, Egypt
- Corresponding author(s): Mohamed Makharita
- Major finding: Controlling severe pain with medication and then performing the celiac block seems to be more effective in controlling pain, reducing opioid consumption, and improving the quality of life of patients with pancreatic cancer compared with performing the celiac block at the beginning followed by pharmacotherapy for pain relief.

Exercise as medicine in the management of pancreatic cancer: A case study
http://www.ncbi.nlm.nih.gov/pubmed/24042308

- Journal: *Medicine & Science in Sports & Exercise*
- Institution(s): Edith Cowan University, Joondalup, Australia and others
- Corresponding author(s): Daniel Galvão
- Major finding: In this first reported clinical case, exercise led to improvements in a variety of patient outcomes during adjuvant therapy for pancreatic cancer. This initial evidence has important clinical implications, indicating that exercise may be an effective adjunct therapy for the management of pancreatic cancer. Future trials are needed to confirm and expand the authors' initial findings.

PS1-60: Advanced pancreatic cancer: Patterns of care and recommendations for education, support
http://www.ncbi.nlm.nih.gov/pubmed/24085889

- Journal: *Clinical Medicine & Research*
- Institution(s): Marshfield Clinic/Security Health Plan of Wisconsin, Marshfield, WI
- Corresponding author(s): Adedayo Onitilo
- Major finding: Understanding the met and unmet needs of patients with advanced pancreatic cancer will lead to improved quality of care and quality of life. Results of this study will be used to write a guideline for improved care and support.

Microwave ablation of pancreatic head cancer: safety and efficacy
http://www.ncbi.nlm.nih.gov/pubmed/24070507

- Journal: *Journal of Vascular and Interventional Radiology*
- Institution(s): University of Insubria, Varese, Italy and others
- Corresponding author(s): Gianpaolo Carrafiello
- Major finding: Despite the small number of patients, the present results can be considered encouraging, showing that percutaneous microwave (MW) ablation is a feasible approach in the palliative treatment of pancreatic tumors.