



**Research**

**PANCREATIC CANCER ACTION NETWORK**

ADVANCE RESEARCH. SUPPORT PATIENTS. CREATE HOPE.

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## PANCREATIC CANCER NEWS & UPDATES – JUNE 2012

### **PANCREATIC CANCER ACTION NETWORK AND COMMUNITY NEWS**

#### **News from the first Pancreatic Cancer Special Conference hosted by the AACR**

[http://pancan.org/section\\_research/strategic\\_research\\_program/news/topic\\_news\\_from\\_aacr\\_pancreatic\\_cancer\\_conference.php](http://pancan.org/section_research/strategic_research_program/news/topic_news_from_aacr_pancreatic_cancer_conference.php)

Twelve press releases were issued to describe abstracts presented at the inaugural Pancreatic Cancer Special Conference hosted by the AACR. The meeting was an incredible success, with over 450 registrants representing 21 countries! The page above includes links to the press releases put out by the AACR. Four of the presentations were also featured in a press conference. Here are a few examples of media coverage picked up by these stories:

<http://health.usnews.com/health-news/news/articles/2012/06/19/new-therapies-show-some-promise-against-pancreatic-cancer>

<http://health.usnews.com/health-news/news/articles/2012/06/19/could-sunlight-lower-your-odds-for-pancreatic-cancer>

<http://www.medpagetoday.com/HematologyOncology/OtherCancers/33351>

[http://www.eurekalert.org/pub\\_releases/2012-06/aafc-mtc061412.php](http://www.eurekalert.org/pub_releases/2012-06/aafc-mtc061412.php)

[http://www.sciencecodex.com/highfatcalorie\\_diet\\_accelerates\\_development\\_of\\_pancreatic\\_cancer-93706](http://www.sciencecodex.com/highfatcalorie_diet_accelerates_development_of_pancreatic_cancer-93706)

#### **Share your federal funding experiences: Help our advocacy efforts**

[http://www.pancan.org/section\\_research/resources\\_for\\_scientists/form\\_funding\\_experiences.php](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).

#### **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.”

## **Pancreatic Cancer Research & Education Act gains momentum in Congress**

### ***House Committee addresses legislation during hearing***

[http://pancan.org/section\\_about/news\\_press\\_center/2012\\_press\\_releases/06\\_21\\_12\\_pr.php](http://pancan.org/section_about/news_press_center/2012_press_releases/06_21_12_pr.php)

The *Pancreatic Cancer Research & Education Act* (S. 362/H.R. 733) was discussed in a hearing for the House Committee on Energy and Commerce, who will ultimately vote on whether the bill gets passed in the House. Director of the National Institutes of Health Dr. Francis Collins was present for the meeting.

## **Nearly 650 turn out for the Pancreatic Cancer Action Network’s Annual Advocacy Day**

### ***Advocates call on Congress to pass Pancreatic Cancer Research & Education Act***

[http://pancan.org/section\\_about/news\\_press\\_center/2012\\_press\\_releases/06\\_26\\_12\\_pr.php](http://pancan.org/section_about/news_press_center/2012_press_releases/06_26_12_pr.php)

The Pancreatic Cancer Action Network’s Sixth Annual Advocacy Day was a huge success, with over 630 delegates present, representing 49 states. The advocates’ message on Capitol Hill was reinforced by 2,500 participants in this year’s National Call-In.

## **A celebrity push on pancreatic cancer**

<http://thecaucus.blogs.nytimes.com/2012/06/22/a-celebrity-push-on-pancreatic-cancer/>

There were a great deal of media hits related to Advocacy Day, including some great coverage for Lisa Niemi Swayze’s participation.

## **BIOLOGY OF CANCER**

### **Oncogenic Kras-induced GM-CSF production promotes the development of pancreatic neoplasia**

<http://www.ncbi.nlm.nih.gov/pubmed/22698407>

### **Tumor-derived GM-CSF regulates myeloid inflammation and T cell immunity in pancreatic cancer**

<http://www.ncbi.nlm.nih.gov/pubmed/22698406>

### ***Preview: Silencing the killers: paracrine immune suppression in pancreatic cancer***

<http://www.ncbi.nlm.nih.gov/pubmed/22698396>

*Pancreatic Cancer Action Network write-up:*

[http://pancan.org/section\\_research/strategic\\_research\\_program/news/topic\\_new\\_clues\\_pancretic\\_tumors\\_evade\\_immune\\_system.php](http://pancan.org/section_research/strategic_research_program/news/topic_new_clues_pancretic_tumors_evade_immune_system.php)

- Journal: *Cancer Cell*
- Institutions: NYU and University of Pennsylvania

- PanCAN affiliated authors:
  - Paper 1: Lab of Dafna Bar-Sagi, PhD: 2008 Pilot Grant and Scientific Advisory Board member
  - Paper 2: Lab of Bob Vonderheide, MD, DPhil: Scientific Advisory Board member; collaborator: Ben Stanger, MD, PhD: 2007 Ralph H. Hruban, MD Career Development Award
  - Preview: Ken Olive, PhD: 2011 Tempur-Pedic® Retailers Career Development Award
- Major finding: KRAS-driven, tumor cell secreted GM-CSF recruits myeloid-derived suppressor cells to the stroma to abrogate tumor cell immune clearance by killer T lymphocytes.

#### **Pancreatic cancer: The role of GM-CSF in pancreatic cancer unveiled**

<http://www.ncbi.nlm.nih.gov/pubmed/22733349>

- Journal: *Nature Reviews Gastroenterology & Hepatology*
- Institution: *Nature* editorial offices
- Major finding: Ms. Greenhill wrote a review discussing the GM-CSF papers listed above.

#### **Inhibition of non-homologous end joining repair impairs growth and enhances radiation response**

- Journal: *PLoS One*
- Institution: Dana-Farber Cancer Institute, Boston, MA
- PanCAN affiliated author: Senior author Alec Kimmelman, MD, PhD: 2010 Career Development Award
- Major finding: Inhibition of Non-Homologous End Joining (NHEJ) repair either pharmacologically or by RNAi resulted in a further accumulation of DNA damage, inhibition of growth, and ultimately apoptosis. Despite a compensatory up-regulation of homologous recombination, DNA damage persists and cells are significantly more sensitive to radiation, supporting the incorporation of NHEJ inhibition into pancreatic cancer therapeutic approaches, either alone, or in combination with DNA damaging therapies.

#### **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: UCSF
- PanCAN affiliated author: First author Eric Collisson, MD: 2012 Skip Viragh Career Development Award
- Major finding: RAF→MEK→ERK signaling is central to the initiation and maintenance of pancreatic ductal adenocarcinoma and to rational combination strategies in this disease.

#### **Efficacy of dimethylaminoparthenolide and sulindac in combination with gemcitabine**

<http://www.ncbi.nlm.nih.gov/pubmed/22699205>

- Journal: *Pancreas*
- Institution: Indiana University School of Medicine, Indianapolis, IN and others
- PanCAN affiliated authors: Senior author C. Max Schmidt, MD, PhD: 2003 Career Development Award; collaborator: Ralph Hruban, MD: member, Emeritus Scientific Advisory Board

- **Major finding:** Intervention with DMAPT (dimethylaminoparthenolide, a bioavailable nuclear factor- $\kappa$ B inhibitor) and sulindac (a cyclooxygenase inhibitor) in combination with gemcitabine may delay or prevent progression of premalignant pancreatic lesions in a genetically engineered mouse model of pancreatic cancer.

#### **Targeting eNOS in pancreatic cancer**

<http://www.ncbi.nlm.nih.gov/pubmed/22738914>

- **Journal:** *Cancer Research*
- **Institution:** Duke University Medical Center, Durham, NC
- **PanCAN affiliated author:** Middle author Rebekah White, MD: 2007 Seena Magowitz Career Development Award
- **Major finding:** Endothelial nitric oxide synthase (eNOS) was targeted with the small molecular inhibitor L-NAME in genetically engineered mouse and human xenograft models of pancreatic cancer, and found to broadly inhibit tumorigenic growth.

#### **Sensitization of pancreatic cancer stem cells to gemcitabine by chk1 inhibition**

<http://www.ncbi.nlm.nih.gov/pubmed/22787433>

- **Journal:** *Neoplasia*
- **Institution:** University of Michigan
- **PanCAN affiliated author:** Middle author Diane Simeone, MD: 2010 The Randy Pausch Family Innovative Grant and member, Scientific Advisory Board
- **Major finding:** The authors found that checkpoint kinase 1 (Chk1)-mediated DNA damage response was greater in stem cells than in non-stem cells, suggesting that Chk1 inhibition may selectively sensitize pancreatic cancer stem cells to gemcitabine, thus making Chk1 a potential therapeutic target for improving pancreatic cancer therapy.

#### **Changes in connexin43 expression and localization during pancreatic cancer progression**

<http://www.ncbi.nlm.nih.gov/pubmed/22729649>

- **Journal:** *Journal of Membrane Biology*
- **Institution:** Fred Hutchinson Cancer Research Center, Seattle, WA
- **PanCAN affiliated author:** Middle author Sunil Hingorani, MD, PhD: 2005 Dr. Laurence A. Mack and Roselle Mack Memorial Career Development Award and 2007 Pilot Grant
- **Major finding:** Molecular and histological characterization of the gap junction protein, connexin43, during progression of pancreatic ductal adenocarcinoma suggests a potential role for gap junctions and connexin43 in mediating interactions between and amongst the stromal and epithelial cells.

#### **Concomitant targeting of EGF receptor, tgf-Beta and SRC points to a novel therapeutic approach**

<http://www.ncbi.nlm.nih.gov/pubmed/22761868>

- **Journal:** *PLoS One*
- **Institution:** Dartmouth Medical School, Hanover, NH and Indiana University, Indianapolis, IN
- **Major finding:** Based on *in vitro* data, concomitantly targeting EGFR, TGF- $\beta$ , and src may constitute a novel therapeutic approach in pancreatic cancer that prevents deleterious cross-talk between EGFR family members and TGF- $\beta$ -dependent pathways.

### **A potent lead induces apoptosis in pancreatic cancer cells**

<http://www.ncbi.nlm.nih.gov/pubmed/22745658>

- Journal: *PLoS One*
- Institution: Changchun Institute of Applied Chemistry, Jilin, China and SUNY Stony Brook
- Major finding: The cytotoxic effect of 2-(benzo[d]oxazol-3(2H)-ylmethyl)- 5-((cyclohexylamino)methyl)benzene-1,4-diol, dihydrochloride (NSC48693) was tested in human pancreatic cancer cell lines, and found to induce mitochondria-mediated apoptosis.

### **LAP2 is widely overexpressed in diverse digestive tract cancers and regulates motility of cancer cells**

<http://www.ncbi.nlm.nih.gov/pubmed/22745766>

- Journal: *PLoS One*
- Institution: Pusan National University, Republic of Korea and others
- Major finding: Lamina-associated polypeptides 2 (LAP2), a nuclear protein that connects the nuclear lamina with chromatin, was found to be widely overexpressed in diverse digestive tract cancers, including pancreatic, and associated with cancer cells' motility.

## **ETIOLOGY**

### **Genome-wide somatic copy number alterations in low-grade PanINs and IPMNs**

<http://www.ncbi.nlm.nih.gov/pubmed/22723370>

- Journal: *Clinical Cancer Research*
- Institution: Johns Hopkins University, Baltimore, MD
- PanCAN affiliated authors: Senior author Ralph Hruban, MD: member, Emeritus Scientific Advisory Board; collaborator: Mimi Canto, MD: member, Medical Advisory Board
- Major finding: The authors used genome-wide copy number analysis in benign neoplasms (mostly low-grade pancreatic intraepithelial neoplasias (PanINs) and intraductal papillary mucinous neoplasms (IPMNs)), and pancreatic neuroendocrine tumors (PNETs) and matched normal tissues from individuals with a family history of pancreatic cancer. They found that low- and intermediate-grade PanINs and IPMNs from patients with a family history of pancreatic cancer harbor few if any somatic chromosomal alterations, supporting the hypothesis that there is no one tumor suppressor gene locus consistently involved in initiating familial pancreatic neoplasia.

### **Familial pancreatic cancer – current knowledge**

<http://www.ncbi.nlm.nih.gov/pubmed/22664588>

- Journal: *Nature Reviews Gastroenterology and Hepatology*
- Institution: Philipps-University Marburg, Germany
- Major finding: This review focuses on the clinical phenotype of familial pancreatic cancer, its histopathological characteristics, known underlying genetic changes, and associated genetic counseling and screening.

### **Risk factors and early signs of pancreatic cancer in diabetes: screening based on diabetes onset age**

<http://www.ncbi.nlm.nih.gov/pubmed/22735942>

- Journal: *Journal of Gastroenterology*
- Institution: University of Tokyo, Japan

- **Major finding:** This study revealed specific risk factors for and similar early signs of pancreatic cancer in early-onset and late-onset diabetes mellitus, leading to the development of a screening strategy.

#### **Incidental pancreatic cysts found by magnetic resonance imaging, relationship with pancreatic cancer**

<http://www.ncbi.nlm.nih.gov/pubmed/22699201>

- **Journal:** *Pancreas*
- **Institution:** University of Tokyo, Japan
- **Major finding:** Patients with pancreatic cysts, especially larger than 10 mm, were considered to be at an increased risk of pancreatic cancer over the entire pancreas.

#### **Occupational cancer in Britain: Gastrointestinal cancers: liver, oesophagus, pancreas and stomach**

<http://www.ncbi.nlm.nih.gov/pubmed/22710677>

- **Journal:** *British Journal of Cancer*
- **Institution:** Cranfield University, UK and others
- **Major finding:** Associations have been shown for pancreatic cancer, with exposure to chlorinated hydrocarbon solvents and related compounds, nickel and chromium compounds, PAHs, insecticides, silica dust and electromagnetic fields.

#### **EARLY DETECTION, DIAGNOSIS, AND PROGNOSIS**

##### **Diagnostic, prognostic, and predictive biomarkers in pancreatic cancer**

<http://www.ncbi.nlm.nih.gov/pubmed/22729569>

- **Journal:** *Journal of Surgical Oncology*
- **Institution:** Thomas Jefferson University, Philadelphia, PA
- **PanCAN affiliated author:** Senior author Jonathan Brody, PhD: 2010 Skip Viragh Career Development Award
- **Major finding:** This review article discusses diagnostic, prognostic, and predictive biomarkers in pancreatic cancer, and their implications for early detection, predictions of patient survival and recurrence patterns, and the personalization of treatment regimens, respectively.

##### **MicroRNA biomarkers in cyst fluid augment the diagnosis and management of pancreatic cysts**

<http://www.ncbi.nlm.nih.gov/pubmed/22723372>

- **Journal:** *Clinical Cancer Research*
- **Institution:** Johns Hopkins University, Baltimore, MD and others
- **PanCAN affiliated authors:** Senior author Anirban Maitra, MBBS: 2004 Career Development Award and Chair, Scientific Advisory Board; collaborator: Ralph Hruban, MD: member, Emeritus Scientific Advisory Board
- **Major finding:** Expression levels of 750 miRNAs were evaluated in microdissected formalin-fixed paraffin-embedded intraductal papillary mucinous neoplasm (IPMN) specimens and cyst fluid (CF) specimens aspirated following surgical resection. Candidate miRNAs were found that helped identify patients with high-grade IPMN and exclude non-mucinous cysts.

### **Overexpression of protein phosphatase 4 correlates with poor prognosis in stage II pancreatic cancer**

<http://www.ncbi.nlm.nih.gov/pubmed/22665577>

- Institution: MD Anderson Cancer Center, Houston, TX
- PanCAN affiliated authors: Senior author Huamin Wang, MD, PhD: 2007 Skip Viragh Career Development Award; collaborator: Jason Fleming, MD: member, Medical Advisory Board
- Major finding: The protein phosphatase 4 catalytic subunit (PP4C) was found to be overexpressed in pancreatic cancer, and its overexpression was associated with poor prognosis in patients with stage II pancreatic ductal adenocarcinoma.

### **MALDI imaging mass spectrometry for in situ proteomic analysis of preneoplastic pancreatic cancer**

<http://www.ncbi.nlm.nih.gov/pubmed/22761793>

- Journal: *PLoS One*
- Institution: Technische Universität München, Munich, Germany and others
- Major finding: Genetically engineered mouse models of endogenous pancreatic cancer are a suitable model system for MALDI-IMS and subsequent LC-MS/MS mass spectrometric analysis, allowing in situ analysis of small precursor lesions and identification of differentially expressed peptides and proteins.

### **ALCAM (CD166) expression and serum levels in pancreatic cancer**

<http://www.ncbi.nlm.nih.gov/pubmed/22745698>

- Journal: *PLoS One*
- Institution: University Medical Center Hamburg-Eppendorf, Hamburg, Germany
- Major finding: Activated leukocyte cell adhesion molecule (ALCAM) was found to be expressed in the majority of pancreatic cancer lesions, but expression was not associated with clinical or pathological data, suggesting that further investigation would be required before determining if ALCAM could be a novel diagnostic marker.

### **Spontaneous regression of pancreatic cancer: Real or a misdiagnosis?**

<http://www.ncbi.nlm.nih.gov/pubmed/22736913>

- Journal: *World Journal of Gastroenterology*
- Institution: Mayo Clinic, Rochester, MN and University of the Basque Country, San Sebastian, Spain
- Major finding: This article reviews different cases reported, their clinical characteristics, and possible mechanisms leading to spontaneous regression of pancreatic cancer, in addition to the possibility of misdiagnosis, such as pancreatic benign tumors, insulinomas, or autoimmune pancreatitis.

### **Claudin-4-targeted optical imaging detects pancreatic cancer and its precursor lesions**

<http://www.ncbi.nlm.nih.gov/pubmed/22677720>

- Journal: *Gut*
- Institution: Philipps University Marburg, Germany and others
- PanCAN affiliated author: Middle author David Tuveson, MD, PhD: 2003 Career Development Award and member, Emeritus Scientific Advisory Board

- **Major finding:** Claudin-4, an integral constituent of tight junctions, was found to be highly expressed in various gastrointestinal tumors including pancreatic cancer. The authors found that the claudin-4 ligand Clostridium perfringens enterotoxin, labeled with a cyanine dye (C-CPE-Cy5.5), combined with novel optical imaging methods enables non-invasive visualization of claudin-4 positive murine pancreatic tumors and their precursor lesions, representing a promising modality for early diagnostic imaging.

**Pancreatic cancer: A novel method of imaging pancreatic cancer cells and precursors in mice**

<http://www.ncbi.nlm.nih.gov/pubmed/22733350>

- **Journal:** *Nature Reviews Gastroenterology & Hepatology*
- **Institution:** Nature editorial offices
- **Major finding:** Dr. McLarnon wrote a review discussing the Claudin-4 paper listed above.

**TREATMENT**

*Data presented at the 2012 ASCO Annual Meeting:*

**Data evaluating clinical potential of ABRAXANE® (nab-paclitaxel) in combination with gemcitabine**

<http://ir.celgene.com/phoenix.zhtml?c=111960&p=irol-newsArticle&ID=1702239&highlight=>

- **ASCO abstract:** [http://abstract.asco.org/AbstView\\_114\\_95279.html](http://abstract.asco.org/AbstView_114_95279.html)
- **Company:** Celgene International Sàrl, Boudry, Switzerland
- **Major finding:** Sixteen patients with resectable or borderline resectable pancreatic cancer were treated with gemcitabine (1000mg/m<sup>2</sup> days 1, 8 and 15) and nab-paclitaxel (125mg/m<sup>2</sup> days 1, 8 and 15) for two cycles prior to surgery; 12 patients have received operations and 11 achieved a complete resection.

**NewLink Genetics reports survival data from its Phase-2 HyperAcute® Pancreas immunotherapy trial**

<http://www.globenewswire.com/newsroom/news.html?d=257975>

- **ASCO abstract:** [http://abstract.asco.org/AbstView\\_114\\_98456.html](http://abstract.asco.org/AbstView_114_98456.html)
- **Company:** NewLink Genetics Corporation, Ames, IA
- **Major finding:** An open-label, dose-finding, Phase 2 study (16 sites) evaluated Algenpantucel HyperAcute-Pancreas (100/300 M cells / dose) + SOC (RTOG-9704: Gemcitabine + 5-FU-XRT) for resected pancreatic cancer patients and displayed promising immunological activation and may improve survival.

**Caris Target Now™ presentations underscore importance of molecular profiling in pancreatic cancer**

<http://www.carislifesciences.com/news/caris-target-now%E2%84%A2-asco-presentations-underscore-importance-of-molecular-profiling-in-pancreatic-cancer-and-uveal-melanoma/>

- **ASCO abstract:** [http://abstract.asco.org/AbstView\\_114\\_98571.html](http://abstract.asco.org/AbstView_114_98571.html)
- **Company:** Caris Life Sciences, Irving, TX
- **Major finding:** Immunohistochemical analyses reveal actionable targets in patients' pancreatic cancers, reiterating the commonality and importance of KRAS mutations in this disease, and identifying other targets, such as TOPO2, DNA repair, epigenetic, Src, inflammation, protein turnover, amino acids, and folate receptor2.

### **OncoMed presents first-in-human Phase I data on anti-Notch2/3 antibody at ASCO**

[http://www.oncomed.com/news/pr/press\\_release\\_2012\\_06\\_02.pdf](http://www.oncomed.com/news/pr/press_release_2012_06_02.pdf)

- ASCO abstract: [http://abstract.asco.org/AbstView\\_114\\_101347.html](http://abstract.asco.org/AbstView_114_101347.html)
- Company: OncoMed Pharmaceuticals, Inc., Redwood City, CA
- Major finding: OMP-59R5, a fully human IgG2 that inhibits the signaling of both Notch2 and Notch3 receptors, was tested in patients with advanced solid tumors and found to be generally well tolerated.

### **Antisense Pharma presents trabedersen Phase I/II complete data at ASCO**

[http://www.antisense-pharma.com/fileadmin/data\\_antisense/PDF\\_Dokumente/Pressemitteilungen/EN\\_2012\\_06\\_04\\_Press\\_Release\\_ASCO.pdf](http://www.antisense-pharma.com/fileadmin/data_antisense/PDF_Dokumente/Pressemitteilungen/EN_2012_06_04_Press_Release_ASCO.pdf)

- ASCO abstract: [http://abstract.asco.org/AbstView\\_114\\_92903.html](http://abstract.asco.org/AbstView_114_92903.html)
- Company: Antisense Pharma, Regensburg, Germany
- Major finding: Phase I/II study evaluated maximum tolerated dose, safety, pharmacokinetics, and efficacy of intravenous trabedersen, an inhibitor of TGF- $\beta$ 2 expression, in patients with advanced tumors; results suggest that trabedersen was safe and yielded encouraging survival rates. A randomized trial in pancreatic cancer patients is planned.

### **Cyclacel presents Phase 1 data of sequential sapacitabine and seliciclib in advanced solid tumors**

<http://investor.cyclacel.com/releasedetail.cfm?ReleaseID=679541>

- ASCO abstract: [http://abstract.asco.org/AbstView\\_114\\_99311.html](http://abstract.asco.org/AbstView_114_99311.html)
- Company: Cyclacel Pharmaceuticals, Inc., Berkeley Heights, NJ
- Major finding: Twenty-seven patients were treated in an open label, single arm, Phase 1 escalation trial of Cyclacel's two product candidates, sapacitabine, a nucleoside analogue, and seliciclib, a CDK inhibitor, as an orally-administered sequential treatment regimen in heavily-pretreated patients with advanced solid tumors; results suggest that sequential sapacitabine and seliciclib is safe with preliminary antitumor activity.

### **Momenta Pharmaceuticals' data supporting development of novel oncology drug candidate M402**

<http://ir.momentapharma.com/redesign/releasedetail.cfm?ReleaseID=679550>

- ASCO abstract: [http://abstract.asco.org/AbstView\\_114\\_100654.html](http://abstract.asco.org/AbstView_114_100654.html)
- Company: Momenta Pharmaceuticals, Inc., Cambridge, MA
- Major finding: A heparan sulfate mimetic, M402, was tested in a genetically engineered pancreatic cancer mouse model and found to modulate tumor-stroma interactions involved in the metastatic and desmoplastic pathways.

Other treatment news from June:

**Pancreatic Adenocarcinoma, Version 2.2012: Featured Updates to the NCCN Guidelines**

<http://www.ncbi.nlm.nih.gov/pubmed/22679115>

- Journal: *JNCCN*
- Institution: many
- PanCAN affiliated authors:
  - Scientific Advisory Board: Margaret Tempero, MD
  - Medical Advisory Board: Mo Malafa, MD
  - Grant recipients: William Hawkins, MD (2005 Skip Viragh Career Development Award), Joseph Herman, MD (2008 Blum-Kovler Career Development Award), Andrew Ko, MD (2003 Career Development Award)
  - Staff: Anitra Tally, Director of Patient Services & Medical Relations
- Major finding: These NCCN Guidelines Insights provide a summary and explanation of major changes to the 2012 NCCN Guidelines for Pancreatic Adenocarcinoma.

**Personalized medicine in pancreatic cancer: Prognosis and potential implications for therapy**

<http://www.ncbi.nlm.nih.gov/pubmed/22744639>

- Journal: *Journal of Gastrointestinal Surgery*
- Institution: Johns Hopkins University
- PanCAN affiliated author: Christine Iacobuzio-Donahue, MD, PhD: 2007 Pilot Grant and member, Scientific Advisory Board
- Major finding: This paper was originally presented as part of the SSAT State-of-the-Art Conference, Personalized Medicine in Gastrointestinal Cancer: Potential Applications in Clinical Practice, at the SSAT 52nd Annual Meeting, May 2011, in Chicago, IL, USA. Dr. Iacobuzio-Donahue discusses her work generated from the rapid autopsy program, and findings surrounding Dpc4 expression.

**Levels of gemcitabine transport and metabolism proteins predict survival of patients**

<http://www.ncbi.nlm.nih.gov/pubmed/22705007>

- Journal: *Gastroenterology*
- Institution: Department of Gastroenterology and Gastrointestinal Cancer Unit, Brussels, Belgium and others
- Major finding: High levels of human equilibrative nucleoside transporter 1 (hENT1) and deoxycytidine kinase (dCK) in pancreatic cancer predict longer survival times in patients treated with adjuvant gemcitabine.

**A randomized, placebo-controlled phase 2 study of ganitumab or conatumumab with gemcitabine**

<http://www.ncbi.nlm.nih.gov/pubmed/22700995>

- Journal: *Annals of Oncology*
- Institution: University of Chicago, IL and others
- Major finding: Ganitumab (AMG 47), a monoclonal antibody that targets type 1 insulin-like growth factor receptor (IGF-1R), combined with gemcitabine had tolerable toxicity and showed trends toward an improved 6-month survival rate and overall survival. Conatumumab, a monoclonal agonist antibody directed against the extracellular domain of human TRAIL (tumor

necrosis factor-related apoptosis-inducing ligand) receptor 2 (TR-2, death receptor 5) combined with gemcitabine showed some evidence of activity as assessed by the 6-month survival rate.

#### **A randomised phase II trial of the Polo-like kinase inhibitor BI 2536 in chemo-naïve patients**

- Journal: *British Journal of Cancer*
- Institution: Albert-Ludwigs Universität Freiburg, Germany
- Major finding: A study within the Central European Society Anticancer Drug Research (CESAR) collaborative network looked at BI 2536, a novel Polo-like kinase 1 inhibitor, in patients with unresectable advanced exocrine adenocarcinoma of the pancreas. Given the low objective response rate and poor survival, further development of BI 2536 monotherapy is not warranted in this population.

#### **Phase I study of pazopanib in combination with paclitaxel & carboplatin in patients with solid tumors**

<http://www.ncbi.nlm.nih.gov/pubmed/22679111>

- Journal: *Molecular Cancer Therapeutics*
- Institution: Sarah Cannon Research Institute, Nashville, TN and others
- Major finding: Coadministration of pazopanib (Votrient, an oral antiangiogenic agent) increased exposure to paclitaxel and carboplatin, and yielded a partial response in one advanced pancreatic cancer patient. Given the antitumor activity of this regimen, further studies are underway to determine a clinically tolerable schedule of pazopanib with paclitaxel and carboplatin.

#### **Irreversible electroporation therapy in the management of locally advanced pancreatic cancer**

<http://www.ncbi.nlm.nih.gov/pubmed/22726894>

- Journal: *Journal of the American College of Surgeons*
- Institution: University of Louisville, KY and Henry Ford Hospital, Detroit, MI
- Major finding: The safety and efficacy of irreversible electroporation as a therapy in the treatment of locally advanced pancreatic cancer was evaluated, and found to be safe and feasible.

#### **Failure to comply with NCCN guidelines for management of pancreatic cancer compromises outcomes**

<http://www.ncbi.nlm.nih.gov/pubmed/22762402>

- Journal: *HPB (Oxford)*
- Institution: Stanford University, CA
- Major finding: The California Cancer Registry was used to identify patients treated for pancreatic cancer at large hospitals from 2001 to 2006. The authors found that there is relatively poor overall compliance with the National Comprehensive Cancer Network (NCCN) pancreatic cancer guidelines in California's large hospitals, and that higher compliance rates are correlated with improved survival.

### **The daily practice of pancreatic enzyme replacement therapy after pancreatic surgery**

<http://www.ncbi.nlm.nih.gov/pubmed/22711213>

- Journal: *Journal of Gastrointestinal Surgery*
- Institution: Erasmus University Medical Center, Rotterdam, The Netherlands
- Major finding: An Northern European anonymous survey revealed that most patients suffering from exocrine insufficiency after pancreatic surgery are undertreated. The authors recommend that physicians focus on treating exocrine insufficiency and educate patients to adjust the dose according to symptoms and their diet.

### **The association of rash severity with overall survival: patients receiving erlotinib for pancreatic cancer**

<http://www.ncbi.nlm.nih.gov/pubmed/22699203>

- Journal: *Pancreas*
- Institution: ACORN Research, LLC, Memphis, TN and others
- Major finding: A retrospective study of patients receiving erlotinib for pancreatic cancer in a community setting showed that longer overall survival is predicted by high-severity rash in erlotinib-treated pancreatic cancer patients.

### **Immunomedics' 3 clinical trials presented at the meeting of the Society of Nuclear Medicine**

<http://www.immunomedics.com/pdfs/news/2012/pr06052012.pdf>

- Society of Nuclear Medicine abstract:  
<http://interactive.snm.org/index.cfm?PageID=11204&A=11&B=103&E=306&S=3&PID=53048>  
[requires log-in]
- Company: Immunomedics, Inc., Morris Plains, NJ
- Major finding: Results from a Phase Ib/II study of yttrium-90-labeled (<sup>90</sup>Y) clivatuzumab tetraxetan in combination with gemcitabine as a frontline therapy in patients with previously untreated advanced pancreatic cancer were presented.

### **Biodesix' proteomic analysis of innovative immunotherapy clinical trial in pancreas cancer presented**

<http://www.biodesix.com/biodesix%E2%80%99-proteomic-analysis-of-innovative-immunotherapy-clinical-trial-in-pancreas-cancer-presented-at-european-society-of-medical-oncology%E2%80%99s-esmo-world-congress-on-gastrointestinal/>

- European Society of Medical Oncology's World Congress on Gastrointestinal Cancer abstract:  
<http://worldqicancer.com/WCGI/WGIC2012/abstracts.asp>
- Company: Biodesix, Inc., Boulder, CO and GlobelImmune, Louisville, CO
- Major finding: The companies collaborated to evaluate Biodesix' ProTS® mass spectrometry-based technology platform in the identification of a proteomic signature that could identify patients who were more likely to have good outcomes following GlobelImmune's GI-4000 (a heat-inactivated *S. cerevisiae* yeast expressing a unique combination of three Ras mutations) therapy.

### **Merrimack announces expansion of Phase 3 NAPOLI-1 study of MM-398 in late pancreatic cancer**

<http://investors.merrimackpharma.com/releasedetail.cfm?ReleaseID=687245>

- **Company:** Merrimack Pharmaceuticals, Cambridge, MA
- **Major finding:** The Phase 3 NAPOLI-1 (NAnoliPOsomal Irinotecan) trial treating metastatic pancreatic cancer patients will be expanded and begin enrollment in July to add an arm combining MM398 with leucovorin and 5-FU.

### **Peregrine completes patient enrollment in randomized Phase II pancreatic cancer trial of bavituximab**

<http://ir.peregrineinc.com/releasedetail.cfm?ReleaseID=686108>

- **Company:** Peregrine Pharmaceuticals, Tustin, CA
- **Major finding:** A Phase II trial of bavituximab, a phosphatidylserine-targeting monoclonal antibody, has completed enrollment of patients with previously untreated stage IV pancreatic cancer patients. The company expects to report interim survival data near the end of 2012.

### **Azaya Therapeutics reports results of Phase I clinical trial**

<http://www.marketwatch.com/story/azaya-therapeutics-reports-results-of-phase-i-clinical-trial-2012-06-13>

- **Company:** Azaya Therapeutics, San Antonio, TX
- **Major finding:** ATI-1123 (liposomal docetaxel) was tested in a Phase I trial of heavily pretreated advanced cancer patients. There were no new toxicities compared to standard docetaxel, and six pancreatic cancer patients achieved stable disease.

### **New trial drug a 'Trojan Horse' attacking pancreatic cancer**

[http://www.eurekalert.org/pub\\_releases/2012-06/ttgr-ntd061312.php](http://www.eurekalert.org/pub_releases/2012-06/ttgr-ntd061312.php)

- **Company:** CytRx Corporation, Los Angeles, CA
- **Major finding:** INNO-206, a tumor-targeted doxorubicin conjugate, will be tested in a Phase 2 clinical trial of patients with treatment-refractory advanced pancreatic cancer.

### **MagForce enters into preclinical research agreement to investigate NanoTherm® therapy**

<http://www.marketwatch.com/story/magforce-enters-into-preclinical-research-agreement-to-investigate-nanothermr-therapy-in-the-gastrointestinal-cancer-field-in-the-usa-2012-06-22>

- **Company:** MagForce AG, Berlin, Germany
- **Major finding:** MagForce AG, a leading medical device company in the field of nanomedicine with focus on oncology, announced that the Company has entered into a pre-clinical research agreement with Mayo Clinic to investigate NanoTherm® therapy (the direct introduction of magnetic nanoparticles into a tumor and their subsequent heating in an alternating magnetic field) in the gastrointestinal cancer field in the US.

### **Lorus Therapeutics announces issuance of Canadian patent for novel anticancer therapy IL-17E**

<http://www.marketwatch.com/story/lorus-therapeutics-announces-issuance-of-canadian-patent-for-novel-anticancer-therapy-il-17e-2012-06-28-7173119>

- **Company:** Lorus Therapeutics, Toronto, Ontario, Canada
- **Major finding:** IL-17E (also known as IL-25) is a recently identified cytokine that plays an important role in inflammation, and has been shown to have potent anticancer properties against a range of solid tumors, including pancreatic.

### **FDA and pharma seek better ways to assess drug safety, efficacy in clinical trials**

[http://jama.jamanetwork.com/article.aspx?articleID=1199149&utm\\_source=Silverchair%20Information%20Systems&utm\\_medium=email&utm\\_campaign=MASTER%3A\\_JAMA\\_Latest\\_Issue\\_TOC\\_Notification\\_06%2F26%2F2012#ALIMITINGDESIGN](http://jama.jamanetwork.com/article.aspx?articleID=1199149&utm_source=Silverchair%20Information%20Systems&utm_medium=email&utm_campaign=MASTER%3A_JAMA_Latest_Issue_TOC_Notification_06%2F26%2F2012#ALIMITINGDESIGN)

- **Journal:** *JAMA*
- **Article type:** Medical News and Perspectives
- **Major finding:** The article describes “intention-to-treat” design of clinical trials, which calls for analyzing results of all participants in the groups to which they were randomized, even those who drop out for a variety of reasons or do not adhere to the proper medication schedule, which can skew trial results and often end up resulting in underestimating the safety or the efficacy of a tested medication.

### **CANCER CONTROL, SURVIVORSHIP, AND OUTCOMES RESEARCH**

#### **Factors influencing receptivity to future screening options for pancreatic cancer**

<http://www.ncbi.nlm.nih.gov/pubmed/22738386>

- **Journal:** *Hereditary Cancer in Clinical Practice*
- **Institution:** Mayo Clinic, Rochester, MN
- **PanCAN affiliated author:** Senior author Gloria Petersen, PhD: member, Scientific Advisory Board
- **Major finding:** Attitudes of at-risk family members with two or more relatives affected with pancreas cancer (PC) toward PC risk and future screening options were evaluated, and the receptivity was found to be high, suggesting that clinicians should address behavioral and genetic risk factors for PC and foster appropriate concern regarding PC risk among at-risk individuals.

#### **Which hospice patients with cancer are able to die in the setting of their choice?**

<http://www.ncbi.nlm.nih.gov/pubmed/22734023>

- **Journal:** *Journal of Clinical Oncology*
- **Institution:** University of Pennsylvania and others
- **Major finding:** An electronic health record-based retrospective cohort study was conducted in three hospice programs in Florida, Pennsylvania, and Wisconsin, and results suggest that increased hospice visit frequency may increase the likelihood of patients being able to die in the setting of their choice.