June 2017

PANCREATIC CANCER ACTION NETWORK AND COMMUNITY NEWS

Pancreatic Cancer Action Network news:

Proposed Budget Cuts Could Hurt Pancreatic Cancer Research Efforts
Take action now by telling Congress to support cancer research
The Trump administration released its full fiscal year (FY) 2018 budget, proposing deep cuts to the National Institutes of Health (NIH) and the National Cancer Institute (NCI) that could significantly set back scientific progress for patients facing pancreatic cancer around the world.

PanCAN Participates in International Meeting Focused on Fighting Pancreatic Cancer Globally
Montreal, Canada, was aglow in purple as more than 40 pancreatic cancer organizations representing 20 countries attended the second annual World Pancreatic Cancer Coalition (WPCC) meeting. More than 80 participants at the meeting learned and shared fundraising and advocacy best practices, listened to personal testimonials from pancreatic cancer survivors and heard about the latest research trends from leading physician-scientists.

The Road to Effective Immunotherapy for Pancreatic Cancer Patients
We had a conversation with Dung Le, MD, recipient of the Fredman Family Foundation – Research Acceleration Network Grant in 2014 and associate professor of oncology at Johns Hopkins. We chatted with Dr. Le about her team’s role in the Keytruda approval and other immunotherapy efforts underway for pancreatic cancer.

It Starts with Someone: Florencia McAllister
Two-time Pancreatic Cancer Action Network research grant recipient Florencia McAllister, MD, always knew she wanted to be a scientist. And her parents’ love and sacrifices helped make that possible. After her mother passed away of pancreatic cancer, McAllister knew she would pursue a research career focused on gastrointestinal cancers – and especially pancreatic.

Clinical Trial Finder
The Clinical Trial Finder saves you time and energy by helping you quickly and easily find the most current pancreatic cancer clinical trials information. By registering for an account, you will have access to the most up-to-date and comprehensive database of pancreatic cancer clinical trials in the United States. Our online tool allows you to perform a patient-specific search to locate available trials based on your patients’ needs or a general search to understand the current clinical trials landscape to inform research or trial design.
Know Your Tumor

Powerful Knowledge. Personal Treatment.

Our Know Your Tumor service is an IRB-approved protocol that provides you and your pancreatic cancer patients with a molecular profiling report of their tumor, which includes personalized treatment options – including standard treatments, off-label treatments and available clinical trials. Treatment options are determined after findings of the molecular reports are interpreted by an expert panel, providing valuable insight to support your treatment decisions.

Patient Registry

The Patient Registry is a global online database created to look for patterns in treatments, side effect management and diagnostics that will lead to improved treatment options and outcomes for patients. Whether you have been diagnosed with pancreatic cancer or have provided care for someone with pancreatic cancer, your contributions are meaningful. By joining our quickly growing community and sharing your experiences, you’re giving researchers access to crucial data that will help make discoveries. Together, we will move pancreatic cancer research forward.

Funding opportunities:

Call for Nominations: 2017 Fifth Annual Ruth Leff Siegel Awards

Submit nominations by June 12, 2017

The Pancreas Center at Columbia University and The Herbert Irving Comprehensive Cancer Center have been entrusted by the Siegel family to identify the investigator who has made the most impactful contribution to the understanding and/or treatment of pancreatic cancer over the past year. The work can be in any field of pancreatic cancer research including but not limited to basic biology, population biology, public health and translational science. They are looking for an investigator who has a track record of high quality work in this field, made a seminal contribution in 2016 and is anticipated to continue contributing to our understanding of pancreatic cancer for years to come. There are no geographic, employment or academic rank restrictions for candidacy.

Stand Up To Cancer Announces Second SU2C Catalyst Collaboration with Genentech

Applications due: June 27, 2017

Stand Up To Cancer announced a second SU2C Catalyst™ collaboration with Genentech, a member of the Roche Group, aimed at accelerating the development of new cancer treatments and combination therapies through clinical trials using Genentech medicines, including both commercial and pre-commercial treatments.

Stand Up To Cancer Issues Call for Ideas for $10 Million “Convergence 2.0” Teams to Address Key Questions About the Immune System’s Role in Cancer Development and Treatment

Applications due: June 30, 2017

Stand Up To Cancer (SU2C) announced that it has issued a $10 million “Convergence 2.0” Call for Ideas seeking new projects, building on its innovative Convergence program. Collaborative teams will develop data/computation-intensive efforts to advance understanding of the human immune system and cancer.

AACR Scientific Achievement Awards and Lectureships

Nominations due between August 2 – 23, 2017

The esteemed AACR Scientific Achievement Awards Program honors researchers through 16 prestigious awards for their global impact on cancer research. They encourage scientists who are now or have been affiliated with any cancer research institution to nominate a deserving colleague. Nominations for the award program are now open.
Updated! **American Gastroenterological Association Funding**

**Applications due: August 4, 2017 through 2018**

The AGA Research Foundation provides over $2 million annually to spur discoveries in gastroenterology and hepatology.

**NIH Director’s New Innovator Award Program**

**Earliest submission date: August 8, 2017**

**Application due date: September 8, 2017**

The NIH Director’s New Innovator Award (DP2) supports a small number of early stage investigators of exceptional creativity who propose bold and highly innovative new research approaches that have the potential to produce a major impact on broad, important problems in biomedical and behavioral research.

**New! Stand Up To Cancer Announces Open Call for Ideas for $10 Million Dream Team of Top Investigators**

**Letters of Intent due: September 5, 2017**

Stand Up To Cancer (SU2C) is inviting proposals for a new $10 million Dream Team of top scientific investigators searching for new strategies to prevent or treat cancer, the American Association for Cancer Research (AACR), SU2C’s Scientific Partner, announced. Unlike other Dream Team grants offered by SU2C in recent years that focused on specific types of cancer, such as colorectal cancer or lung cancer, the new $10 million grant is open to any type of translational cancer research.

**The Pancreatic Cancer Detection Consortium (U01)**

**Deadlines: September 21, 2017; April 6, 2018**

This Funding Opportunity Announcement (FOA) invites applications from multi-disciplinary teams of researchers and clinicians to establish the Pancreatic Cancer Detection Consortium (PCDC) to conduct research to improve the detection of early stage pancreatic ductal adenocarcinoma (PDAC) and characterization of its precursor lesions.

**Damon Runyon Physician-Scientist Training Award**

**Application deadline: December 1, 2017**

In an effort to confront the crisis arising from a growing dearth of physician-scientists, Damon Runyon wishes to encourage more physicians to pursue research careers. To do so, the Foundation is establishing a pilot program designed to recruit outstanding U.S. Specialty Board-eligible physicians into cancer research careers by providing them with the opportunity for a protected research training experience under the mentorship of a highly qualified and gifted mentor after they have completed all of their clinical training.

**Cancer Research UK (CRUK) Grand Challenge**

**The call will open again on June 22, 2017, with a revised set of challenges**

In 2014 Cancer Research UK published a bold new research strategy with an ambition to support more innovative high-risk, potentially high-reward research. As part of this, the Grand Challenge initiative was launched which aims to stimulate a focused multinational, multidisciplinary research effort to address significant challenges in cancer research, by bringing in fresh thinking, innovation and technology from other disciplines and sectors to transform the cancer research field. It is intended to drive global collaboration and support research that would not be able to happen without a team approach and funding of this scale.

**Cancer Moonshot℠ – Funding Opportunities**

Following receipt of the Blue Ribbon Panel report, NCI identified funding opportunity announcements (FOAs) from within its extensive research portfolio that address the goals of the Cancer Moonshot. These opportunities mark the beginning of a growing Cancer Moonshot portfolio which will continue to expand
given the authorization of the 21st Century Cures Act to fund the Beau Biden Cancer Moonshot with $1.8 billion over 7 years. While the FOAs listed below highlight research initiatives that align with the efforts of the Cancer Moonshot, they may be supported with existing funds or with the 21st Century Cures funding.

**Job opportunities:**

**Medical College of Wisconsin (MCW) Division of Hematology Oncology and the Pancreatic Cancer Program Physician**

*If you or someone you know might be interested, please contact research@pancan.org*

The Medical College of Wisconsin (MCW) Division of Hematology Oncology and the Pancreatic Cancer Program has an immediate opening for a dynamic academic medical oncologist with expertise in pancreatic cancer and a strong track-record of research, evidenced by publications and/or an active research program. The candidate must be board certified in Internal Medicine and Medical Oncology. This position is being recruited at the Assistant or Associate Professor level.

**Postdoctoral Appointee: Rutgers Cancer Institute of New Jersey**

*If you or someone you know might be interested, please contact research@pancan.org*

The primary purpose of the Postdoctoral Appointee position is to conduct research investigation into the effects of cancer vaccines in murine models of pancreatic cancer under the supervision of the Principal Investigator (Darren Carpizo, MD, PhD). Performs molecular, cell biological and animal laboratory research experiments under direct supervision of the Principal Investigator. Prior experience with immune studies and/or flow cytometry a plus. Analyzes data and prepares data for presentation at local and national meetings. Drafts written reports for inclusion in manuscripts and grant proposals.

**Meetings:**

**2nd International Conference on Pancreatic Cancer & Liver Diseases**

*Meeting: June 12 – 13, 2017, London, UK*

Pancreatic Cancer 2017 gives an extraordinary platform for changing capacity ideas into superb business. This conference will convey together a vast participation of customers came from entrepreneurs, Proposers, buyers, international monetary companies, business institutions, academia and experts within the area of pancreatic studies and treatment.

**New! Best of ASCO 2017**

*San Francisco: June 16 – 17, 2017, San Francisco Marriott Marquis*


*New Orleans: July 28 – 29, 2017, The Roosevelt Hotel*

The Best of ASCO Meetings highlight the most cutting-edge science and education from the world’s premier oncology event, the ASCO Annual Meeting, into a two-day program.

**ESMO 19th World Congress on Gastrointestinal Cancer (World GI Congress)**

*Meeting: June 28 – July 1, 2017, Barcelona, Spain*

The ESMO World Congress on Gastrointestinal Cancer is the premier global event in the field, encompassing malignancies affecting every component of the gastrointestinal tract and aspects related to the care of patients with gastrointestinal cancer, including screening, diagnosis and the latest management options for common and uncommon tumours. It has been endorsed by leading professional societies and organizations.
European Pancreatic Club (EPC) 2017
Meeting: June 28 – July 1, 2017, Budapest, Hungary
The meeting will be an important event in European pancreatology and related areas, where basic scientists and clinicians can exchange ideas and novel research findings, and also deepen their scientific knowledge.

Aspen Cancer Conference
Meeting: July 15 – July 18, 2017, the Gant Conference Center and Resort, Aspen, CO
The Aspen Cancer Conference, a series of yearly meetings conceived by Drs. Benjamin F. Trump and Curtis C. Harris, was begun in 1985. The Conference has continued to emphasize the relationships between toxicity and carcinogenesis and the identification of novel strategies in cancer prevention, diagnosis, and therapy. It is evident that new paradigms are needed to explain that an increasing number of mutagenic and non-mutagenic agents result in carcinogenesis, that cell injury and death, repair, and inflammation are constant companions of cancer.

2nd International Conference on Pancreatic Disorders and Treatment
Meeting: September 13 – 14, 2017, Dallas, TX
2nd International Conference on Pancreatic Disorders and Treatment (10 Plenary Forums - 1Event), will be organized around the theme “Precision medicine for pancreatic disorders.” Pancreas 2017 is comprised of keynote and speaker sessions on latest cutting edge research designed to offer comprehensive global discussions that address current issues in Pancreas 2017.

New! World Congress of Gastroenterology
Meeting: October 13 – 18, 2017, Orlando, FL
Gain valuable insight as world-leading gastroenterologists focus on a global view of GI and hepatology diseases and treatments at the World Congress of Gastroenterology at ACG2017.

American Pancreatic Association (APA) 2017 Annual Meeting
Meeting: November 8 – 11, 2017, Loews Coronado Bay, Coronado, CA
Abstract submission deadline: June 23, 2017
Young Investigator Travel Award deadline: June 23, 2017
The American Pancreatic Association is a membership organization for physicians and researchers interested in diseases of the exocrine pancreas. Recognizing that progress in understanding, diagnosing, and treating pancreatic diseases requires multidisciplinary analysis, the APA is reaching out to broaden the participation from pancreas-related disciplines, which perhaps have been underrepresented in the past: endoscopy, radiology, and pathology, among others. Our annual meeting is the cornerstone of our organization and allows us to bring together these groups to discuss current topics in pancreatic diseases.

Mayo Clinic Pancreatic and Hepato-Biliary Cancer Symposium
This course, offered by Mayo Clinic in cooperation with TGen, Honor Health, and the Pancreatic Cancer Action Network, welcomes expert faculty from across the country and throughout Mayo Clinic to bring you a state-of-the-art conference with the latest treatment options in hepato-biliary and pancreatic cancer.

Save the date! 2018 Gastrointestinal Cancers Symposium
January 18 – 20, 2018

Save the date! AACR Annual Meeting 2018
April 14 – 18, 2018, McCormick Place North/South, Chicago, Illinois
Save the date! AACR Pancreatic Cancer Special Conference  
Spring 2018

Save the date! Digestive Disease Week®  
June 2 – 5, 2018, Walter E. Washington Convention Center, Washington, DC

Save the date! 13th International Hepato-Pancreato-Biliary Association (IHPBA) World Congress  
September 3 – 7, 2018, Geneva, Switzerland

Other community news:

Cancer Immunotherapy and Translational Research Expert Robert Vonderheide, MD, DPhil, to Become Director of the Abramson Cancer Center of the University of Pennsylvania  
Latest News blog article: Distinguished SMAB Member Promoted to Director of Abramson Cancer Center  
Robert Vonderheide, MD, DPhil, an internationally renowned cancer immunotherapy and translational research expert, has been named the new director of the Abramson Cancer Center of the University of Pennsylvania. Dr. Vonderheide is a member of our Scientific & Medical Advisory Board, grantee and PI for a Precision Promise Clinical Trial Consortium site.

Dana-Farber Cancer Institute Appoints Gastrointestinal Cancer Center Director  
Brian Wolpin, MD, MPH, has been appointed director of the Gastrointestinal Cancer Center at Dana-Farber Cancer Institute. Dr. Wolpin is co-PI for the 2016 The Shirley Sadoff – Research Acceleration Network Grant and PI for a Precision Promise Clinical Trial Consortium site.

Answering your Questions about Cancer, Inflammation, and Immunity  
Q&A with PanCAN grantees Mikala Egeblad, PhD, and Doug Fearon, MD, in response to a webinar where they discussed the complex interplay between cancer cells, immune cells and host physiology, highlighting the importance of reciprocal interactions between a tumor and a host – connections that should not be overlooked.

Updated Patient Resources Now Available for Kidney and Pancreatic Cancers  
The National Comprehensive Cancer Network® (NCCN®) has published updated NCCN Guidelines for Patients® and NCCN Quick Guide™ sheets for Kidney and Pancreatic Cancers. The NCCN Guidelines for Patients for Kidney and Pancreatic Cancers were updated from the 2015 and 2014 versions, respectively.

Call for Papers: Research on Pancreatic Cancer  
Journal of Pancreatic Cancer is seeking high quality clinical, translational and basic science papers on malignancies of the pancreas and the peripancreatic region. Submitted papers will be peer reviewed and consider for publication in the Journal.

BIOLOGY OF CANCER

The Presence of Interleukin-13 at Pancreatic ADM/PanIN Lesions Alters Macrophage Populations and Mediates Pancreatic Tumorigenesis  
Latest News blog article: Deviant Immune Cells Incite Pancreatic Cancer  
- Journal: Cell Reports  
- Institution(s): Mayo Clinic, Jacksonville, FL, and others  
- Corresponding author(s): Peter Storz
- **Pancreatic Cancer Action Network-affiliated authors:**
  - David Dawson, MD, PhD: recipient, 2008 Seena Magowitz – Career Development Award
  - Nabeel Bardeesy, PhD: recipient, 2008 Randy Pausch, PhD – Pilot Grant
  - Peter Storz, PhD: recipient, 2008 Patty Boshell – Career Development Award

- **Major finding:** Treatment of mice expressing oncogenic KRas under an acinar cell-specific promoter with a neutralizing antibody for interleukin-13 (IL-13) significantly decreased the accumulation of alternatively activated macrophages at acinar-to-ductal metaplasia/pancreatic intraepithelial neoplasia (ADM/PanIN) lesions, resulting in decreased fibrosis and lesion growth.

**Recurrent Noncoding Regulatory Mutations in Pancreatic Ductal Adenocarcinoma**

- **Journal:** Nature Genetics
- **Institution(s):** Cold Spring Harbor Laboratory, Cold Spring Harbor, New York, NY, and others
- **Corresponding author(s):** Michael Schatz or David Tuveson
- **Pancreatic Cancer Action Network-affiliated author:** David Tuveson, MD, PhD: recipient, 2003 Career Development Award and member, Emeritus Scientific & Medical Advisory Board

- **Major finding:** Here the authors describe GECCO (Genomic Enrichment Computational Clustering Operation) to analyze somatic noncoding alterations in 308 pancreatic ductal adenocarcinomas and identify commonly mutated regulatory regions. Their detailed single-cancer analysis of noncoding alterations identifies regulatory mutations as candidates for diagnostic and prognostic markers, and suggests new mechanisms for tumor evolution.

**Identification of the Serine Biosynthesis Pathway as a Critical Component of BRAF Inhibitor Resistance of Melanoma, Pancreatic, and Non-small Cell Lung Cancer Cells**

- **Journal:** Molecular Cancer Therapeutics
- **Institution(s):** Evol Science, Philadelphia, PA, and others
- **Corresponding author(s):** Vikram Bhattacharjee
- **Pancreatic Cancer Action Network-affiliated author:** Vikram Bhattacharjee, PhD: recipient, 2010 Samuel Stroum – Fellowship Award

- **Major finding:** The novel aspects of this study are the direct identification of serine biosynthesis as a critical mechanism of BRAF V600E inhibitor resistance and the first successful example of using gemcitabine + BRAF inhibitors (BRAFi) in combination to kill previously drug resistant cancer cells, creating the translational potential of pre-treatment with gemcitabine prior to BRAFi treatment of tumor cells to reverse resistance within the mutational profile and the wild type.

**GRP78 Haploinsufficiency Suppresses Acinar-to-Ductal Metaplasia, Signaling, and mutant Kras-driven Pancreatic Tumorigenesis in Mice**

- **Journal:** PNAS
- **Institution(s):** University of Southern California, Los Angeles, CA
- **Corresponding author(s):** Amy Lee

- **Major finding:** Here, the authors report that the stress-inducible 78-kDa glucose-regulated protein (GRP78/HSPA5), a key regulator of endoplasmic reticulum homeostasis and PI3K/AKT signaling, is overexpressed in the acini and pancreatic ductal adenocarcinoma (PDAC) of Pdx1-Cre;KrasG12D/+;p53f/+ (PKC) mice as early as 2 mo, suggesting that GRP78 could exert a protective effect on acinar cells under stress, as during PDAC development. Collectively, their studies establish a role for GRP78 in acinar-to-ductal metaplasia and PDAC development.

**Molecular Events in the Natural History of Pancreatic Cancer**

- **Journal:** Trends in Cancer
- **Institution(s):** Ontario Institute for Cancer Research, Toronto, Canada, and others
- **Corresponding author(s):** Steven Gallinger
Major finding: Here the review the literature on the natural history of pancreatic ductal adenocarcinoma, including its cell of origin, the initiating somatic mutational events, pathways deranged in the mature tumor, its biological heterogeneity, and the relationship of the primary tumor with metastases. They also suggest areas for further research and highlight translatable findings that are beginning to make clinical inroads.

**Metastasis: The Plastic State**


- **Journal**: *Nature Reviews Cancer*
- **Institution(s)**: *Nature* editorial office, London, UK
- **Corresponding author(s)**: Anna Dart
- **Major finding**: Partial epithelial–mesenchymal transition (EMT), whereby tumor cells gain migratory characteristics but at the same time maintain certain epithelial traits, was regarded as important in the promotion of metastasis. However, two studies in 2015 used mouse models of breast and pancreatic cancer to show that EMT is dispensable for metastasis.

**ETIOLOGY**

**Association between Alcohol Consumption, Folate Intake, and Risk of Pancreatic Cancer: A Case-Control Study**

- **Journal**: *Nutrients*
- **Institution(s)**: North Dakota State University, Fargo, ND, and others
- **Corresponding author(s)**: Rick Jansen
- **Pancreatic Cancer Action Network-affiliated author**: Gloria Petersen, PhD: member, Scientific & Medical Advisory Board
- **Major finding**: The authors’ findings showed no significant association between risk of pancreatic cancer and either overall alcohol consumption or type of alcohol consumed (drinks/day). Their study showed dietary folate intake had a modest effect size, but was significantly inversely associated with pancreatic cancer (odds ratio (OR) = 0.99, p < 0.0001). The current study supports the hypothesis that pancreatic cancer risk is reduced with higher food-based folate intake.

**Diabetes, Pancreatogenic Diabetes, and Pancreatic Cancer**

- **Journal**: *Diabetes*
- **Institution(s)**: National Institute of Diabetes and Digestive and Kidney Diseases, National Institutes of Health, Bethesda, MD, and others
- **Corresponding author(s)**: James Abbruzzese
- **Pancreatic Cancer Action Network-affiliated author**: Gloria Petersen, PhD: member, Scientific & Medical Advisory Board
- **Major finding**: A symposium entitled Diabetes, Pancreatogenic Diabetes, and Pancreatic Cancer was held at the American Diabetes Association’s 76th Scientific Sessions in June 2016. This article summarizes the data presented at that symposium, describing the current understanding of the interrelationships between diabetes, diabetes management, and pancreatic cancer, and identifies areas where additional research is needed.

**A Cohort Study of Adolescent and Midlife Diet and Pancreatic Cancer Risk in the NIH-AARP Diet and Health Study**

- **Journal**: *American Journal of Epidemiology*
- **Institution(s)**: National Cancer Institute, Bethesda, MD, and others
Corresponding author(s): Vanessa Gordon-Dseagu

Major finding: The authors assessed associations between diet and pancreatic cancer incidence in the National Institutes of Health (NIH)-AARP (formerly American Association of Retired Persons) Diet and Health Study. Their study found a number of dietary factors present during adolescence and midlife to be associated with pancreatic cancer.

Use of Moist Oral Snuff (Snus) and Pancreatic Cancer: Pooled Analysis of Nine Prospective Observational Studies

Journal: International Journal of Cancer

Institution(s): Karolinska Institutet, Stockholm, Sweden, and others

Corresponding author(s): Marzieh Araghi

Major finding: Tobacco smoke constituents other than nicotine or its metabolites may account for the relationship between smoking and pancreatic cancer.

EARLY DETECTION, DIAGNOSIS, AND PROGNOSIS

Pancreatic Cysts and Guidelines

Journal: Digestive Diseases and Sciences

Institution(s): Yale School of Medicine, New Haven, CT

Corresponding author(s): James Farrell

Pancreatic Cancer Action Network-affiliated author: James Farrell, MD: member, Emeritus Scientific & Medical Advisory Board

Major finding: The clinical challenge in 2017 is to accurately preoperatively diagnose pancreatic cysts and their malignant potential before deciding about surgery, surveillance or doing nothing. This review will focus on the currently available clinical guidelines for doing so.

Multiparametric Plasma EV Profiling Facilitates Diagnosis of Pancreatic Malignancy

Journal: Science Translational Medicine

Institution(s): Massachusetts General Hospital, Boston, MA, and others

Corresponding author(s): Ralph Weissleder

Major finding: The authors used an advanced multiplexed plasmonic assay to analyze circulating tumor-derived extracellular vesicles (tEVs) in more than 100 clinical populations. Using EV-based protein marker profiling, they identified a signature of five markers (PDAC EV signature) for pancreatic ductal adenocarcinoma (PDAC) detection. The PDAC EV signature of tEVs offered higher sensitivity, specificity, and accuracy than the existing serum marker (CA 19-9) or single-tEV marker analyses. This approach should improve the diagnosis of pancreatic cancer.

Circulating Tumor Cells as a Biomarker in Pancreatic Ductal Adenocarcinoma

Journal: Cellular Physiology and Biochemistry

Institution(s): Fudan University, Shanghai, China

Corresponding author(s): Xingdang Liu

Major finding: Both circulating tumor cell (CTC) subtype and total CTC number may serve as potential biomarkers for pancreatic ductal adenocarcinoma.

Plasma microRNAs as Biomarkers of Pancreatic Cancer Risk in a Prospective Cohort Study

Journal: International Journal of Cancer

Institution(s): Catalan Institute of Oncology (ICO-IDIBELL), Barcelona, Spain, and others

Corresponding author(s): Eric Duell or Murray Korc
Major finding: The authors conducted a nested case-control study within the Prospective Investigation into Cancer and Nutrition (EPIC) cohort to evaluate pre-diagnostic microRNAs (miRs) as biomarkers of subsequent pancreatic ductal adenocarcinoma risk. Based on adjusted logistic regression models, levels for six miRs overall, and for four miRs at shorter follow-up time between blood collection and diagnosis, were statistically significantly associated with risk.

TREATMENT

Identification of Targetable ALK Rearrangements in Pancreatic Ductal Adenocarcinoma

Latest News blog article: Rare but Targetable Genetic Change Discovered in Pancreatic Cancer Patients

- Journal: JNCCN
- Institution(s): University of Pittsburgh Medical Center, Pittsburgh, PA, and others
- Corresponding author(s): Nathan Bahary
- Pancreatic Cancer Action Network-affiliated authors:
  - Aatur Singhi, MD, PhD: recipient, 2016 Translational Research Grant
  - Andrew Hendfar, MD, MPH: PI, Precision Promise Clinical Trial Consortium site
- Major finding: Although rare, ALK fusions occur in pancreatic ductal adenocarcinoma (PDAC), and screening for ALK rearrangements should be considered in young patients with PDAC.

3rd St. Gallen EORTC Gastrointestinal Cancer Conference: Consensus Recommendations on Controversial Issues in the Primary Treatment of Pancreatic Cancer

- Journal: European Journal of Cancer
- Institution(s): CaritasKlinikum St. Theresia, Saarbrücken, Germany, and others
- Corresponding author(s): Manfred Lutz
- Pancreatic Cancer Action Network-affiliated author: Andrew Rhim, MD: recipient, 2013 Career Development Award
- Major finding: Main focus of the conference was to discuss the limits of surgical resection and to identify ways to standardize procedures and to improve curative outcome, including adjuvant and perioperative treatment, for pancreatic cancer.

Active Systemic Treatment of Pancreatic Cancer

- Journal: JNCCN
- Institution(s): UCSF Helen Diller Family Comprehensive Cancer Center, San Francisco, CA
- Corresponding author(s): Margaret Tempero
- Pancreatic Cancer Action Network-affiliated author: Margaret Tempero, MD: co-PI, Precision Promise Clinical Trial Consortium site and member, Scientific & Medical Advisory Board
- Major finding: During her presentation at the NCCN 22nd Annual Conference, Dr. Margaret Tempero offered an update on the current state of systemic treatment of pancreatic cancer, focusing on resectable/borderline resectable, locally advanced, and metastatic disease.

Mutational Landscape of Metastatic Cancer Revealed from Prospective Clinical Sequencing Of 10,000 Patients

Latest News blog article: Large-scale Study Shows Benefit of Molecular Profiling

- Journal: Nature Medicine
- Institution(s): Memorial Sloan Kettering Cancer Center, New York, NY
- Corresponding author(s): Michael Berger
- Major finding: The authors established a large-scale, prospective clinical sequencing initiative using a comprehensive assay, MSK-IMPACT, through which they have compiled tumor and matched normal sequence data from a unique cohort of more than 10,000 patients with advanced
cancer and available pathological and clinical annotations. Using these data, they identified clinically relevant somatic mutations, novel noncoding alterations, and mutational signatures that were shared by common and rare tumor types. Patients were enrolled on genomically matched clinical trials at a rate of 11%. To enable discovery of novel biomarkers and deeper investigation into rare alterations and tumor types, all results are publicly accessible.

**Safety and Tolerability of the First-in-class Agent CPI-613 in Combination with Modified FOLFIRINOX in Patients with Metastatic Pancreatic Cancer: A Single-centre, Open-label, Dose-escalation, Phase 1 Trial**

- **Journal**: *The Lancet Oncology*
- **Institution(s)**: Wake Forest University School of Medicine, Winston-Salem, NC, and others
- **Corresponding author(s)**: Angela Alistar
- **Major finding**: A maximum tolerated dose of CPI-613 was established at 500 mg/m² when used in combination with modified FOLFIRINOX in patients with metastatic pancreatic cancer. CPI-613 is a novel anticancer agent that selectively targets the altered form of mitochondrial energy metabolism in tumor cells, causing changes in mitochondrial enzyme activities and redox status that lead to apoptosis, necrosis, and autophagy of tumor cells. The findings of clinical activity will require validation in a phase 2 trial.

**Efficacy and Safety of Gemcitabine plus S-1 in Pancreatic Cancer: A Pooled Analysis of Individual Patient Data**

- **Journal**: *British Journal of Cancer*
- **Institution(s)**: Tokyo University of Science, Tokyo, Japan, and others
- **Corresponding author(s)**: Shota Okamura
- **Major finding**: Gemcitabine plus S-1 is a viable treatment alternative to gemcitabine, which is one of the standard treatments in patients with locally advanced pancreatic cancer.

**Minimally Invasive Versus Open Pancreaticoduodenectomy: A Propensity-Matched Study From a National Cohort of Patients**

- **Journal**: *Annals of Surgery*
- **Institution(s)**: University of Texas Southwestern Medical Center, Dallas, TX
- **Corresponding author(s)**: Rebecca Minter
- **Major finding**: Minimally invasive pancreaticoduodenectomy (MIPD) had an equivalent morbidity and mortality rate to open pancreaticoduodenectomy (OPD), with the benefit of a decreased rate of prolonged length of stay, though this is partially offset by an increased readmission rate.

**Downstaging in Stage IV Pancreatic Cancer: A New Population Eligible for Surgery?**

- **Journal**: *Annals of Surgical Oncology*
- **Institution(s)**: Pederzoli Hospital, Verona, Italy, and others
- **Corresponding author(s)**: Isabella Frigerio
- **Major finding**: Patients with metastatic pancreatic adenocarcinoma who were fully responsive to neoadjuvant chemotherapy may be cautiously considered for surgery, with potential benefit in survival compared with palliative chemotherapy alone. This is supported by results of the authors' retrospective study, which is the largest ever reported.

**A Phase II Study of Antibody-drug Conjugate, TAK-264 (MLN0264) in Previously Treated Patients with Advanced or Metastatic Pancreatic Adenocarcinoma Expressing Guanylyl Cyclase C**

- **Journal**: *Investigational New Drugs*
- **Institution(s)**: Moffitt Cancer Center, Tampa, FL, and others
- **Corresponding author(s)**: Khaldoun Almhanna
Major finding: This phase II open-label, multicenter study evaluated the efficacy, safety, and tolerability of TAK-264 in previously treated patients with advanced or metastatic pancreatic adenocarcinoma expressing guanylyl cyclase C (GCC). TAK-264 demonstrated a manageable safety profile; however, the low efficacy of TAK-264 observed in this study did not support further clinical investigation.

Efficacy and Safety of Neoadjuvant FOLFIRINOX for Borderline Resectable Pancreatic Adenocarcinoma: Improved Efficacy Compared with Gemcitabine-based Regimen

- Journal: Oncotarget
- Institution(s): University of Ulsan College of Medicine, Seoul, Korea
- Corresponding author(s): Kyu-Pyo Kim or Song Cheol Kim
- Major finding: FOLFIRINOX was feasible and effective as neoadjuvant chemotherapy for patients with borderline resectable pancreatic cancer and may have improved efficacy compared to a gemcitabine-based regimen.

Efficacy of Chemotherapy in Elderly Patients with Unresectable Pancreatic Cancer: A Multicenter Review of 895 Patients

- Journal: BMC Gastroenterology
- Institution(s): Ehime University Graduate School of Medicine, To-on, Ehime, Japan, and others
- Corresponding author(s): Teru Kumagi
- Major finding: Chemotherapy appears effective for elderly pancreatic cancer patients with unresectable disease, but treatment needs to be optimized to improve prognosis.

Antibody Targeting Intracellular Oncogenic Ras Mutants Exerts Anti-tumour Effects After Systemic Administration

Latest News blog article: Critical Clues Toward Targeting KRAS Mutations

- Journal: Nature Communications
- Institution(s): Ajou University, Suwon, Republic of Korea
- Corresponding author(s): Yong-Sung Kim
- Major finding: The authors report the development of a human IgG1 format antibody, RT11, which internalizes into the cytosol of living cells and selectively binds to the activated GTP-bound form of various oncogenic Ras mutants to block the interactions with effector proteins, thereby suppressing downstream signaling and exerting anti-proliferative effects in a variety of tumor cells harboring oncogenic Ras mutants. Their results demonstrate the feasibility of developing therapeutic antibodies for direct targeting of cytosolic proteins that are inaccessible using current antibody technology.

Selective Targeting of Point-mutated KRAS through Artificial microRNAs

Latest News blog article: Critical Clues Toward Targeting KRAS Mutations

- Journal: PNAS
- Institution(s): The Ohio State University, Columbus, OH, and others
- Corresponding author(s): Carlo Croce or Mario Acunzo
- Major finding: Recently, small interfering RNAs have been used to specifically target point-mutated KRAS, yet without sufficiently discriminating its wild-type counterpart. Here, the authors describe an innovative approach based on the development of artificial microRNAs able to efficiently target mutated KRAS, leaving their normal counterpart unaffected and preventing major side effects.
Targeting Metabolism in Pancreatic Cancer
- **Journal**: The Lancet Oncology
- **Institution(s)**: Heidelberg University Hospital, Heidelberg, Germany
- **Corresponding author(s)**: Markus Büchler
- **Major finding**: Several drugs have been developed that target altered metabolic pathways in cancer. Among these, CPI-613 – an agent that inhibits cancer-specific mitochondrial energy metabolism – has recently gained attention and has been shown to be well tolerated and effective in various cancers.

Pancreatic Cancer: Between ROCK and a Hard Place
- **Journal**: Nature Reviews Gastroenterology & Hepatology
- **Institution(s)**: Nature editorial office, London, UK
- **Corresponding author(s)**: Iain Dickson
- **Major finding**: Priming pancreatic cancer tissue by inhibiting Rho-associated protein kinase (ROCK) to affect tumor tissue tension improves chemotherapy efficacy and reduces metastasis in experimental models, according to new research. This approach could lead to improved therapeutic strategies for this aggressive disease.

ROCK Inhibition Sensitizes Preclinical Models
- **Journal**: Nature Reviews Clinical Oncology
- **Institution(s)**: Nature editorial office, London, UK
- **Corresponding author(s)**: Peter Sidaway
- **Major finding**: The findings of a preclinical study, involving both genetically engineered and patient-derived mouse models of pancreatic cancer, indicate that the Rho kinase (ROCK) inhibitor fasudil is able to disrupt the extracellular matrix (ECM) of tumors, and thus improve exposure to subsequent treatment with chemotherapy.

Industry news:

FDA Approves Merck’s KEYTRUDA® (pembrolizumab) for Adult and Pediatric Patients with Unresectable or Metastatic, Microsatellite Instability-High (MSI-H) or Mismatch Repair Deficient (dMMR) Solid Tumors
*Latest News blog article: Unprecedented Drug Approval Can Benefit Pancreatic Cancer Patients*
*Latest news blog article: The Road to Effective Immunotherapy for Pancreatic Cancer Patients*
- **Company**: Merck, Kenilworth, NJ
- **Major finding**: Merck announced that the U.S. Food and Drug Administration (FDA) has approved KEYTRUDA® (pembrolizumab), the company’s anti-PD-1 (programmed death receptor-1) therapy, for a first-of-its-kind indication: the treatment of adult and pediatric patients with unresectable or metastatic, microsatellite instability-high or mismatch repair deficient, solid tumors that have progressed following prior treatment and who have no satisfactory alternative treatment options or colorectal cancer that has progressed following treatment with a fluoropyrimidine, oxaliplatin, and irinotecan.

Immunotherapy Trial Started in Patients with Inoperable Pancreatic Cancer
- **Company**: Immunitor Inc., Vancouver, British Columbia
- **Major finding**: At least 30 patients with inoperable and chemotherapy-failed pancreatic cancer are expected to be recruited for a 3-month trial (NCT03165591) of an oral tableted therapeutic
vaccine, V3-P. The main inclusion criteria are higher than normal baseline levels of CA 19.9 tumor antigen. Based on preliminary evidence the immunotherapy-induced decrease of this surrogate marker is correlated with tumor shrinkage and prolonged survival.

CANCER CONTROL, SURVIVORSHIP, AND OUTCOMES RESEARCH

A Tale of Two Cancers: Traveling to Treat Pancreatic and Thyroid Cancer

Latest News blog article: New Study Reinforces Recommendations that Pancreatic Cancer Patients Travel to Academic Centers for Surgery

- **Journal**: Journal of the American College of Surgeons
- **Institution(s)**: Endocrine Surgery Research Group, Chicago, IL, and others
- **Corresponding author(s)**: Raymon Grogan
- **Major finding**: There are improvements in both quality and survival for those traveling to academic centers for their cancer care. In the case of papillary thyroid carcinoma, this difference in quality did not affect overall survival. In pancreatic ductal adenocarcinoma, however, differences in quality translated to a survival advantage.

Toward Palliative Care for All Patients With Advanced Cancer

- **Journal**: JAMA Oncology
- **Institution(s)**: University of Pittsburgh, Pittsburgh, PA
- **Corresponding author(s)**: Yael Schenker
- **Major finding**: A recently updated clinical practice guideline from the American Society of Clinical Oncology (ASCO) strongly recommends that all patients with advanced cancer receive palliative care early in the disease course, concurrent with active treatment.

Optimistic Honesty: Understanding Surgeon and Patient Perspectives on Hopeful Communication in Pancreatic Cancer Care

- **Journal**: HPB
- **Institution(s)**: University of Toronto, Canada, and others
- **Corresponding author(s)**: Lesley Gotlib Conn
- **Major finding**: Surgeons and patients with pancreatic cancer value optimistic honesty in tailored prognosis conversations. Perceived discrepancies in surgeon-patient understanding must be contextualized within efforts to establish a sufficient understanding, high level of trust, and optimistic stance of hope.