Sponsored by: University of Minnesota Office of Continuing Medical Education



Discover. Share. Conquer.



# November 3-6 C



# FORTY-FIRST ANNUAL MEETING

Northwestern Memorial Hospital Conference Center and Wyndham Hotel

#### ACKNOWLEDGEMENT OF SUPPORT

The American Pancreatic Association would like to extend a special thank you to the following organizations for their support of this meeting.

PLATINUM SUPPORTERS Abbott ChiRhoClin, Inc





GOLD SUPPORTERS Eli Lilly & Co Hirshberg Foundation

SILVER SUPPORTERS Lustgarten Foundation Pancreatic Cancer Action Network

BRONZE SUPPORTERS Asuragen Cook Endoscopy InterScience Institute National Pancreas Foundation RedPath Integrated Pathology Vay Liang W. Go, Pancreas Journal



November 2-5, 2011 Chicago, Illinois



Discover. Share. Conquer.

#### AMERICAN PANCREATIC ASSOCIATION Governing Board

Suresh Chari, MD, President Ashok Saluja, PhD, Secretary-Treasurer Diane Simeone, MD, President-Elect Andrew Warshaw, MD, Past President Rodger Liddle, MD, Councilor Martin Freeman, MD, Councilor Stephen Pandol, MD, Councilor

#### **APA Contact Information:**

Ashok K. Saluja, PhD APA Secretary-Treasurer Professor & Vice Chair, Surgery University of Minnesota PO Box 14906 Minneapolis, MN 55414 T: 612-626-9797 F: 612-625-7700 E: apa@umn.edu www.american-pancreatic-association.org

#### TABLE OF CONTENTS:

Program Information: Abstract Reviewers:	Page Page	
Travel Award Winners:	Page	
CME Information:	Page	
Go Award Profile:	Page	6
Interventions in Pancreatic Necrosis:	Page	7-12
Hirshberg Opening Session:	Page	13
Thursday Session:	Page	14-19
Friday Sessions:	Page	20-25
Saturday Sessions:	Page	26-29
Thursday Posters:	Page	30-38
Friday Posters:	Page	39-48
Saturday Posters:	Page	48-57

#### PROGRAM OVERVIEW

#### Interventions in Pancreatic Necrosis

The goal will be to define the role of the various modalities in different clinical contexts. A consensus document will be prepared based on the deliberations by the participating experts & will be published in Pancreas.

#### Wednesday, November 3

#### 8:00am to 4:00pm

#### **Scientific Sessions**

The scientific sessions will address basic and clinical science issues in pancreatic cancer and pancreatitis. They will feature a keynote lecture and selected abstracts.

Thursday, November 4	8:00am to 9:30am 2:30pm to 4:00pm
Friday, November 5	8:30am to 10:35am 3:00pm to 4:50pm
Saturday, November 6	8:30am to 10:45am

#### **Abstract Poster Presentations**

Authors will showcase their research in poster format. Discussion leaders will lead groups to the Posters of Distinction each day.

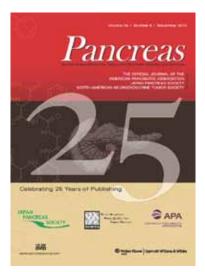
Thursday, November 4	7:00am to 8:00am 12:30pm to 2:30pm
Friday, November 5	7:30am to 8:30am 1:05pm to 3:00pm
Saturday, November 6	7:30 am to 8:30 am 12:15pm to 2:00pm
State-of-the-Art Lectures	
Thursday, November 4 Friday, November 5	10:45am to 11:15am 12:35pm to 1:05pm
CME-Accredited Mini-Symposia	
Wednesday, November 3	5:00pm to 6:30pm
Thursday, November 4	9:30am to 10:30am 11:15am to 12:30pm 4:15pm to 6:00pm
Friday, November 5	10:50am to 12:35pm 5:05pm to 6:05pm
Saturday, November 6	11:00am to 12:15pm

2:00pm to 3:00pm

### SPECIAL EVENTS

#### 25th Anniversary of Pancreas & Dr. Go as its Editor-in-Chief

Reception Wednesday, November 3 6:30pm - 8:00pm Lakeshore Ballroom, Wyndham Chicago



#### **Banquet Dinner & Award Presentations**

Thursday, November 4 7:00pm – 10:00pm Grand Ballroom, Wyndham Chicago

Join us as we present the Vay Liang & Frisca Go Award for Lifetime Acheivement in Pancreatology, honor top abstracts presenters in various categories, and other awards. Cocktail hour begins at 7pm, dinner at 8pm.

#### Wine & Cheese Reception

Friday, November 5 6:30pm - 7:30pm Krumlovsky Atrium, Northwestern Memorial Conference Center

#### **ONSITE REGISTRATION HOURS**

Location: Lakeshore Ballroom, Wyndham Hotel Wednesday, 11/3: 7:30 AM - 3:00 PM

Location: Grand Ballroom, Wyndham Hotel Wednesday, 11/3: 4:00 PM - 6:30 PM

Location: Mecklenberg Conference Center		
Thursday, 11/4:	7:00 AM - 6:00 PM	
Friday, 11/5:	7:30 AM - 6:00 PM	
Saturday, 11/6:	7:30 AM - 3:00 PM	

#### ABSTRACT SELECTION COMMITTEE

The APA Board wishes to thank the following for reviewing the over 250 abstracts recieved:

- Dana Andersen Minoti Apte Surindar Batra Charles Brunicardi Darwin Conwell Douglas Evans Chris Forsmark Martin Freeman Toru Furukawa
- Miklos Sahin-Toth Claus Schafer Tooru Shimosegawa Diane Simeone Jennifer Tseng Raul Urrutia Huaizhi Wang Andrew Warshaw Kenji Yamao
- Guy Grobowski Anna Gukovskaya Sohail Hussain Tetsuhide Ito Rodger Liddle Craig Logsdon Anirban Maitra Julia Mayerle Steve Pandol

#### YOUNG INVESTIGATOR AWARD RECIPIENTS

Congratulations to the 2010 Young Investigator Award Winners:

Thiruvengadam Arumugam Beatrice G. Assouline-Thomas Melena D. Bellin David K. Chang Jinyun Chen Daniel M. DiRenzo Michelle Falkowski Chongmin Huan Greg T. Gurda Vivek Kadiyala Bo Kong Shingo Kozono Seth B Krantz Parini Mankad Hanno E. Matthaei Lidiya S. Orlichenko Jookyung Park Yuliya Pylayeva-Gupta Raghuwansh P. Sah Lorenzo Sempere Vikesh K. Singh Jillian K. Smith Andras Szabo Rupjyoti Talukdar Matthew A. Tyler Viktoria Venglovecz Meihua Wan Lidong Wang Zuobiao Yuan

#### LEARNING OBJECTIVES FOR APA ANNUAL MEETING

- 1. Identify the best course of treatment for pancreatic necrosis.
- 2. Create collaborative opportunities between clinicians and basic scientists interested in diseases of the pancreas
- 3. Discuss the most up-to-date research results in pancreatic diseases and their key role in defining future therapies in pancreatic diseases
- Recognize the bench to bedside applications of basic science research such as angiogenesis, Animal models in pancreatitis, cancer metabolism, ras signaling in pancreatic cancer, epigenetics, and nanotechnology in cancer.
- 5. Describe the application of new and novel therapies for pancreatic diseases such as exocrine pancreas insufficiency and IPMN.
- Improve diagnosis of pancreatic diseases by using techniques such as EUS Trucut Biopsy, FNA, and core biopsy, cross-sectional imaging, and surgery.

#### **ACCREDITATION STATEMENT**

This activity has been planned and implemented in accordance with the Essential Areas and Policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint sponsorship of the University of Minnesota and the American Pancreatic Association (APA). The University of Minnesota is accredited by the ACCME to provide continuing medical education for physicians.

#### **AMA PRA CATEGORY 1 CREDITS**

The University of Minnesota designates this educational activity for a maximum of 18.5 AMA PRA Category 1 Credits<sup>™</sup>. Physicians should only claim credit commensurate with the extent of their participation in the activity. Other Healthcare Professionals who participate in this CME activity may submit their Statements of Attendance to their appropriate accrediting organizations or state boards for consideration of credit. The participant is responsible for determining whether this activity meets the requirements for acceptable continuing education.

Sessions that are accredited are denoted with the following logo:



To claim your credits, please turn in your credit sheet & evaluation to the registration desk. Both forms can be found in the meeting bags.

# 2010 Vay Liang & Frisca Go Award

PETER A. BANKS, MD



Dr. Banks attended Harvard College, graduated from Medical School at Columbia College of Physicians and Surgeons, and then did his internship and medical residency at Beth Israel Hospital in Boston. He joined the faculty at Harvard Medical School in 1967. In 1973, he became the Director Con Clinical Gastroenterology and Director for the Center for Pancreatic Disease at Brigham and Women's Hospital. He initiated the Academic Clinical Track Gastroenterology Fellowship Program and continues to direct the program. Several graduates have gone on to achieve national stature.

Dr. Banks served as President of the APA and IAP, Chair of the Pancreatic Disorders Section of AGA, a member of the Gastrointestinal Drugs Advisory Committee of the US FDA, and as a member of the Board of Trustees of the American College of Gastroenterology. He has served on the editorial board of *Pancreas* and as an associate editor of *Pancreatology*. He is Vice-Chairman of the Digestive Diseases National Coalition.

Dr. Banks has received numerous awards including the Jerry S. Trier Award for Excellence in Clinical Teaching at Harvard Medical School and Brigham & Women's Hospital in 1999, the AGA Distinguished Educator Award in 2000 and the Outstanding Achievement in Clinical Gastoenterology Award from the AGA in 2006.

Dr. Banks' major contributions in clinical research are in the field of pancreatitis with particular emphasis on recognition and treatment of severe acute pancreatitis, recognition and treatment of infected necrosis, and treatment of pain in chronic pancreatitis. Dr. Banks has written guidelines for the treatment of both acute and chronic pancreatitis, has published extensively in peer-reviewed journals, and has written two books on pancreatitis. Dr. Banks remains very active as a clinician, clinical investigator, teacher and mentor. APA Multidisciplinary Consensus Conference

# Interventions in Pancreatic Necrosis November 3

CO-MODERATORS: Santhi Swaroop Vege, MD & Martin L. Freeman, MD Lakeshore Ballroom, Wyndham Chicago

7:30 - 8:00 AM REGISTRATION & BREAKFAST - LAKESHORE BALLROOM

8:00 - 8:05 AM WELCOME - LAKESHORE BALLROOM Suresh Chari, MD & Ashok K. Saluja, PhD

#### 8:05 - 8:15 AM MANAGEMENT OF PANCREATIC NECROSIS: THE NEED FOR CONSENSUS

Moderators: Peter Banks, MD & Hans Beger, MD Speaker: Santhi Swaroop Vege, MD

# 8:15 - 9:30 AM DEFINITIONS & IMAGING FOR PANCREATIC NECROSIS

Moderators: Chris Forsmark, MD, Patrick Freeny, MD, William Nealon, MD

### What are the main points in the revision of Atlanta classification with regards to pancreatic and/or peripancreatic necrosis excluding nomenclature of collections?

Michael Sarr, MD - Mayo Clinic

# What is the current nomenclature of collections in Atlanta classification and what is the need for revisions?

Thomas Bollen, MD - Brigham & Women's Hospital



Wednesday, 11/3

Open Surgical Interventions for Pancreatic Necrosis cont.

When is MRI/MRCP, plus minus secretin/gadolinium indicated in necrosis?

What is the role of secretin MRCP in defining disconnected duct?

Desiree Morgan, MD - University of Alabama at Birmingham

What is the role of EUS, MRCP, CT in differentiating necrosis from pseudocyst?

How much debris in a "pseudocyst" should suggest management as necrosis instead?

George Papachristou, MD - University of Pittsburgh

How is infected necrosis diagnosed? In 2010, is FNA any longer indicated to diagnose IN? Scott Tenner, MD, MPH - SUNY Downstate

When is intervention indicated for sterile and infected necrosis?

Is there a role for medical management for infected necrosis? Peter Layer, MD - Iraelitic Hospital in Hamburg

9:00 - 9:30 CONSENSUS DISCUSSION Facilitators: Tim Gardner, MD, Darwin Conw

Facilitators: Tim Gardner, MD, Darwin Conwell, MD & Tooru Shimosegawa, MD, PhD

#### 9:30 - 10:30 OPEN SURGICAL INTERVENTIONS FOR PANCREATIC NECROSIS

Moderators: Andrew Warshaw, MD & Colin Johnson, FRCS

What are the available methods of intervention for pancreatic necrosis?

Martin Freeman, MD - University of Minnesota

In 2010, When is open surgical management of PN indicated and when is it to be avoided, if possible?

Carlos Fernandez-del Castillo, MD - Massachusetts General Hospital

# If open debridement is to be performed, which technique has best results?

Bettina Rau, MD - University of Rostock

### 10:00 - 10:30 AM CONSENSUS DISCUSSION

Facilitators: Andrew Warshaw, MD, Peter Banks, MD & Hans Beger, MD

10:30 - 10:45 AM REFRESHMENTS - LAKESHORE BALLROOM

#### 10:45 AM - 12:00 PM NEWER MINIMALLY INVASIVE SURGICAL TECHNIQUES: LAPAROSCOPIC AND RETROPERITONEAL SINUS TRACK (STEP UP) APPROACH

Moderators: Karen Horvath, MD, Ajith Siriwardena, MD & Andres Gelrud, MD

What are the approaches to minimally invasive necrosectomy? John Windsor, MD - University of Auckland

# What are the results with intraperitoneal laparoscopic approach?

Dilip Parekh, MD - University of Southern California

# What are the results with retroperitoneal laparoscopic approach?

Pascal Bucher, MD - Geneva University Hospital

Open Surgical Interventions for Pancreatic Necrosis cont.

# What are the results with retroperitoneal sinus track approach?

Ross Carter, MD - Glasgow Royal Infirmary Pancreatic Team

### What are the results with STEP-UP approach?

Hjalmar VanSantvoort, MD - University Medical Center, Utrecht

### 11:30 AM - 12:00 PM CONSENSUS DISCUSSION

Facilitators: Marc Besselink, MD, PhD, Jeffrey B. Matthews, MD & Jens Werner, MD

12:00 - 12:45 PM LUNCH- LAKESHORE BALLROOM

### 12:45 - 2:45 PM RADIOLOGIC AND ENDOSCOPIC APPROACHES TO NECROSIS

Moderators: Eric VanSonnenberg, MD, Nageshwar Reddy, MD & Patrick Freeny, MD

What are the results of percutaneous-only approach to debridement of necrosis? When is it indicated?

Koenraad Mortele, MD - Brigham & Women's Hospital

# What are the results of combined percutaneous endoscopic approach?

Andrew Ross, MD - Virginia Mason Medical Center

# What are the various techniques of endoscopic necrosectomy?

David Carr-Locke, MD - Beth Israel Medical Center

When is EUS-guidance indicated for endoscopic necrosectomy? Shyam Varadarajulu, MD - University of Alabama at Birmingham

What are the challenges and future directions of transgastric debridement?

Todd H. Baron, MD - Mayo Clinic

What are results of European multicenter series of necrosectomy? Hans Seifert, MD - Klinikum Oldenburg

What are the results of the systematic review on percutaneous drainage as a primary treatment of necrotizing pancreatitis ? What are the results from the PENGUIN trial on endoscopy necrosectomy versus surgical necrosectomy? Marc Besselink, MD, PhD - University Medical Center, Utrecht

What are the outcomes of endoscopic management of disconnected pancreatic duct and recurrent fistula/PFCs? Olivier Le Moine, MD, PhD - Hopital Erasme

What are the outcomes of surgical management for disconnected pancreatic duct and recurrent fistula/PFC? Greg Beilman, MD - University of Minnesota

2:15 - 2:45 CONSENSUS DISCUSSION Facilitators: Stefan Seewald, David Carr-Locke 11

#### 2:45 - 3:30 PM CASE DISCUSSIONS: WHICH TECHNIQUES FOR WHICH SCENARIOS

Facilitators: Santhi Swaroop Vege, MD & Martin Freeman, MD

#### Case-based scenarios:

Organ Failure or not Pulmonary Status Partially vs. Well-organized Necrosis Extension into gutters/Hollow Viscus Concomitant Gallstones

# 3:30 - 4:00 PM WRAP UP/CONSENSUS DISCUSSION

Facilitators: Santhi Swaroop Vege, MD & Martin Freeman, MD

End of Pre-Meeting Conference

Annual Meeting of the

American Pancreatic Association November 3-6

4:00 - 6:30 PM REGISTRATION - GRAND BALLROOM @ WYNDHAM

5:00 - 6:30 PM HIRSHBERG KEYNOTE SYMPOSIUM PANCREATIC CANCER: FROM BENCH TO BEDSIDE AND BACK - GRAND BALLROOM Moderators: Suresh Chari, MD & Andrew Warshaw, MD

#### Cancer: Old Ideas, New Insights

st

Vikas P. Sukhatme, MD, PhD Beth Israel Deaconess Medical Center and Harvard Medical School

### Tumor Angiogenesis and Notch Signaling

Jan Kitajewski, PhD Columbia University

# Angiogenesis and Metastasis: Role of Inflammatory Cell-Derived Matrix Metalloproteinases

James P. Quigley, PhD The Scripps Research Institute

6:30 - 8:00 PM RECEPTION - LAKESHORE BALLROOM @ WYNDHAM HONORING 25TH ANNIVERSARY OF PANCREAS AND VAY LIANG W. GO, EDITOR-IN-CHIEF Wednesday, 11/3

7:00 AM - 6:00 PM

**REGISTRATION** - KRUMLOVSKY ATRIUM @ NORTHWESTERN

7:00 - 8:00 AM BREAKFAST & POSTER VIEWING KRUMLOVSKY ATRIUM

# 8:00 - 9:30 AM SCIENTIFIC SESSION: PANCREATIC CANCER

MECKLENBURG CONFERENCE ROOM @ NORTHWESTERN Moderators: Sarah Thayer, MD, PhD & Marina Pasca di Magliano, PhD

Featured Speaker: Diane Simeone, MD, University of Michigan "Introductory Remarks"

- 8:15 AM Effect of Pancreatic Cancer Resection on Glucose Homeostasis. G. Aggarwal, S.T. Chari, R. Pannala, R. Basu, A. Basu. Division of Gastroenterology and Endocrinology, Mayo Clinic, Rochester, MN; Division of Gastroenterology, Virginia Mason Medical Center, Seattle, WA
- 8:27 AM Factors Associated with Survival after Surgery for Recurrent Pancreatic Cancer. O. Strobel, W. Hartwig, T. Hackert, U. Hinz, S. Fritz, L. Schneider, M. Büchler, J. Werner. Dept. of Surgery, University of Heidelberg, Heidelberg, Germany
- 8:39 AM Mist1 Suppresses Kras-Induced Acinar-to-Ductal Metaplasia through the Mitogen-Activated Protein Kinase Pathway. G. Shi, D. DiRenzo and S.F. Konieczny. Department of Biological Sciences and the Purdue Center for Cancer Research, Purdue University, West Lafayette, IN
- 8:51 AM C4.4A Mediates AGR2 Induced Aggressiveness of Pancreatic Cancer Cells. V Ramachandran, T Arumugam, CD Logsdon. Depts. of Cancer Biology, Medical Oncology, UT MD Anderson Cancer Center, Houston, TX

- 9:03 AM Triptolide Induces Expression of miR-129\* and miR-142-3p in Pancreatic Cancer Cells. T.N. MacKenzie, N. Mujumdar, V. Thayanithy, A. Sarver, R. Chugh, S. Subramanian, V. Sangwan, S. Vickers, A. Saluja. Department of Surgery, Department of Pharmacology, Masonic Cancer Center, University of Minnesota, Minneapolis, MN
- 9:15 AM Advanced Pancreatic Cancer Treated with Neoadjuvant Therapy and Surgical Resection: A SEER-Medicare Analysis. J.K. Smith, S.C. Ng, J.P. Simons, S.A. Shah, T.P. McDade, J.F. Tseng. Surgical Outcomes Analysis & Research, University of Massachusetts Medical School, Worcester, MA

#### 9:30 - 10:30 AM CONTROVERSIES IN PANCREATOLOGY CONCURRENT SESSIONS



SESSION 1: CLINICAL CONTROVERSIES MECKLENBERG CONFERENCE ROOM Moderators: Carlos Fernandez-del Castillo, MD & Scott Tenner, MD, MPH

#### EUS-guided Trucut Biopsy vs FNA of the Pancreas EUS TCB

Time to Get Off the Dime Michael J. Levy, MD - Mayo Clinic

It's not Worth a Dime William Brugge, MD - Massachusetts General Hospital

#### Diagnostic utility of FNA vs Core Biopsy

Cytopathology is all you need Vikram Deshpande, MBBS - Massachusetts General Hospital

Tissue is the issue Thomas C. Smyrk, MD - Mayo Clinic Rochester

# CONTROVERSIES IN PANCREATOLOGY - CONT.

SESSION 2: BASIC SCIENCE CONTROVERSIES PRITZKER AUDITORIUM Moderators: Craig Logsdon, PhD & Miklos Sahin-Toth, MD, PhD

The myth of clinical relevance in experimental models of acute pancreatitis: some are more mythical than others Michael L. Steer, MD

**Tufts Medical Center** 

Experimental pancreatitis models: why not? Zoltán Rakonczay, MD University of Szeged

**Using trypsin to trigger pancreatitis** Craig D. Logsdon, PhD University of Texas M. D. Anderson Cancer Center

**Trypsinogen activation and pancreatitis: is it time to rethink?** Raghuwansh P. Sah, MBBS University of Minnesota

10:30 - 10:45 AM REFRESHMENTS - KRUMLOVSKY ATRIUM

**10:45 - 11:15 AM CLINICAL STATE OF THE ART LECTURE** MECKLENBERG CONFERENCE ROOM Introduction: Martin Freeman, MD



Planning and running the NIH funded randomized trial of sphincter of Oddi dysfunction (EPISOD) Peter Cotton, MD Medical University of South Carolina

### 11:15 AM - 12:30 PM PANCREATIC EXOCRINE INSUFFICIENCY

MECKLENBERG CONFERENCE ROOM Moderators: Markus Lerch, MD and Phillip Toskes, MD

# Current Understanding of the Physiology of Pancreatic Enzyme Secretion

David Whitcomb, MD, PhD University of Pittsburgh

#### Pancreatic Ductal Secretion and CFTR

Peter Durie, MD University of Toronto

# Assessing and Correlating Pancreatic Acinar and Ductal Function in Patients with Steatorrhea

Darwin Conwell, MD Brigham & Women's Hospital

### **Rational Management of Steatorrhea**

Christopher Forsmark, MD University of Florida

12:30 - 2:30 PM LUNCH & POSTER VIEWING KRUMLOVSKY ATRIUM

1:15 DISCUSSION OF POSTERS OF DISTINCTION Discussion Leaders: Howard Reber, MD & Jennifer Tseng, MD Please meet at registration 17



#### 2:30 - 4:00 PM SCIENTIFIC SESSION: PANCREATITIS MECKLENBURG CONFERENCE ROOM

Moderators: Peter Hegyi, MD, PhD & Sohail Husain, MD

Featured Speaker: Aida Habtezion, MD, Stanford University "Hemeoxygenase-1 as a Therapeutic Target in Acute Pancreatitis"

- 2:45 PM A Population-Based Study of the Natural History of Chronic Pancreatitis. D. Yadav, L. Timmons, S.T. Chari. University of Pittsburgh, Pittsburgh, PA, Mayo Clinic, Rochester, MN.
- 2:57 PM Quality of Life After Total Pancreatectomy and Islet Autotransplant for Chronic Pancreatitis in Children. M.D. Bellin, M.L. Freeman, S.J. Schwarzenberg, D.M. Radosevich, T. B. Dunn, G.J. Beilman, D.E.R. Sutherland. University of Minnesota, Departments of Pediatrics and Surgery.
- 3:09 PM Protective effect of Dexamethasone against acute respiratory distress syndrome in patients with severe acute pancreatitis. M H Wan, J Li, W F Tang, H L GONG, P Xue, L Zhu, G Y Cheng, Q Xia. Department of Integrated Traditional Chinese and Western Medicine, West China Hospital, Sichuan University, China.
- 3:21 PM Adeno-Associated Virus-Mediated In Vivo Expression of Dominant Negative ERK Improves Mortality in a Novel Murine Model of Gallstone Pancreatitis. Z Yuan, D Williard, E Twait, D Kempuraj, I Samuel. Dept of VAMC/UI, Iowa City, IA.
- 3:33 PM Autophagy is neither a prerequisite for nor a consequence of early trypsin activation in experimental pancreatitis. J. Mayerle, S. Malla, B. Krüger, T. Wartmann, M. Sendler, F.U. Weiss, F.S. Gorelick, W. Halangk, M.M. Lerch. Department of Medicine A, University of Greifswald, Division of Medical Biology, University of Rostock, Division of Experimental Surgery, University of Magdeburg, Germany, and Yale University Medical School, New Haven, CT.
- 3:45 PM Integrated Ras Activity Promotes the Development of Chronic Pancreatitis in Mice. J. Daniluk, Y Liu, B. Ji, C.D. Logsdon. Department of Cancer Biology, UT M.D. Anderson Cancer Center, Houston, TX

#### 4:00 - 4:15 PM REFRESHMENTS - KRUMLOVSKY ATRIUM

4:15 - 6:00 PM NOVEL THERAPEUTICS IN PANCREATIC CANCER - PART 1 CANCER METABOLISM & NATURAL PRODUCTS Supported by Pancreatic Cancer Action Network MECKLENBERG CONFERENCE ROOM Moderators: Steve Pandol, MD & Jeremy Wilson, MD

Keynote: Phytonutrient Mechanisms of Action in Pancreatic Cancer Vay Liang W. Go, MD, David Geffen School of Medicine at UCLA

**Targeting the Pancreatic Cancer Metabolome: To Warburg & Back** Anirban Maitra, MBBS, Johns Hopkins University

Minnelide & Pancreatic Cancer Ashok K. Saluja, PhD, University of Minnesota

**Novel Strategies for Overcoming Drug Resistance by Natural Agents** Fazlul Sarkar, PhD, Karmanos Cancer Center, Wayne State

Natural Products in the Clinic: Are We Making Any Real Progress? Linus Ho, MD, UT MD Anderson Cancer Center

7:00 - 10:00 PM COCKTAIL RECEPTION & AWARDS DINNER GRAND BALLROOM @ WYNDHAM

Presentation of Awards Hirshberg Award for Best Abstracts in Pancreatic Cancer National Pancreas Foundation Award for Best Abstracts in Pancreatitis Presidential Awards Young Investigator Travel Awards

Presentation of the Vay Liang & Frisca Go Award for Lifetime Achievement Recipient: Peter A. Banks, MD, Brigham & Women's Hospital 7:30 AM - 6:00 PM REGISTRATION - KRUMLOVSKY ATRIUM

7:30 - 8:30 AM BREAKFAST & POSTER VIEWING KRUMLOVSKY ATRIUM

#### 8:30 - 10:35 AM SCIENTIFIC SESSION: PANCREATIC CANCER MECKLENBURG CONFERENCE ROOM

Moderators: Brian Lewis, PhD & Stephen Koniczeny, PhD

Featured Speaker: Surindar Batra, PhD, University of Nebraska Activated Kras (G12D) in the Progression and Metastasis of Pancreatic Cancer Cells

- 8:45 AM Clinical Implications of Multi-Color Co-Detection of microRNA and Protein Biomarkers in Pancreatic Cancer. L. F. Sempere, M. Preis, M. Korc. Department of Medicine, Dartmouth Hitchcock Medical Center, Lebanon, NH; Department of Pharmacology and Toxicology, Dartmouth Medical School, Hanover, NH.
- 8:57 AM **Polymorphisms in Metabolic Genes are Associated with Early Onset Pancreatic Cancer.** R. Brand, H. Brand, A. Lozano, A. Moore, B. Diergaarde, D. Whitcomb. Departments of Medicine and Human Genetics, University of Pittsburgh, Pittsburgh, PA.
- 9:09 AM Inhibition of Hedgehog Signaling in a PDAC Xenograft Model Inhibits the Tumor and Its Microenvironment. D. Bausch, S. Fritz, C. Fernández-del-Castillo, A.L. Warshaw, S.P. Thayer. Department of Surgery, MGH & HMS, Boston, MA; Chirurgische Universitätsklinik, Heidelberg, Germany.
- 9:21 AM Overexpression of the Collagenase MT1-MMP in KrasG12D Mice Leads to Pancreatic Tumors With Pronounced Fibrosis. S.B. Krantz, S. Dangi-Garimella, M.A. Shields, E.C. Cheon, M.R. Barron, P.J. Grippo, D.J. Bentrem, H.G. Munshi. Departments of Surgery and Medicinel; Robert H. Lurie Comprehensive Cancer Center, Northwestern University Feinberg School of Medicine, Chicago, IL; Jesse Brown VA Medical Center, Chicago, IL

- 9:33 AM Novel Tumor Suppressor Pathway in Pancreatic Cancer Derived from Selective Remodeling of Desmoplasia. AJ Mathison, A Liebl, CJ DeMars, U Shergill, GA Lomberk, V Shah, N Buttar, RA Urrutia. Division of Gastroenterology, Mayo Clinic, Rochester, MN
- 9:45 AM ATDC and KrasG12D cooperate to promote pancreatic adenocarcinoma in mice. L. Wang, J.E. Wilkinson, H. Yang, J. Wu, M. Pasca Di Magliano, D.M. Simeone. Departments of Surgery, Pathology, and Cell and Developmental Biology and Molecular and Integrative Physiology, University of Michigan, Ann Arbor, MI.
- 9:57 AM Inhibition of SIRT1 Expression: A Novel Therapeutic Strategy for Pancreatic Cancer. V. Dudeja, R. Chugh, V. Sangwan, N. Mujumdar, D. Borja-Cacho, R. Dawra, S. Vickers and A. Saluja. Department of Surgery, University of Minnesota, Minneapolis, MN, USA.
- 10:09 AM Loss of Hif2α Accelerates the Progression of Kras-Mediated Pancreatic Neoplasia. J. Speicher, A. Criscimanna, D.J. Hartman, C. Galambos, G.K. Gittes, F. Esni. Departments of Surgery, Pathology, Microbiology & Molecular Genetics, University of Pittsburgh, Pittsburgh, PA.
- 10:21 AM Histology and Molecular Pathology Define Clinically Relevant Phenotypes in Carcinoma of the Ampulla of Vater. D. Chang, A. Johns, C. Scarlett, M. Pajic, A. Chou, M. Jones, J. Samra, S. Henshall, E. Musgrove, R. Sutherland, A. Gill, A. Biankin. Cancer Research Program, Garvan Institute of Medical Research, Sydney, Australia

10:35 - 10:50 AM REFRESHMENTS - KRUMLOVSKY ATRIUM

10:50 AM - 12:35 PM NOVEL THERAPEUTICS IN PANCREATIC CANCER - PART 2 RAS SIGNALING & PANCREATIC CANCER Supported by the Lustgarten Foundation MECKLENBERG CONFERENCE ROOM Moderators: Anirban Maitra, MBBS & Murray Korc, MD Friday, 11/5

21

Ras Signaling & Pancreatic Cancer cont.

Keynote: Targeting the Ras Pathway in Pancreatic Cancer Dafna Bar Sagi, PhD - New York University

The Ras Signaling Pathway in Pancreatic Cancer Jen Jen Yeh, MD - University of North Carolina

Ras Regulated microRNAs in Pancreatic Cancer Joshua T. Mendell, MD, PhD - Johns Hopkins University

**Ras Targeted Therapies in the Clinic: What Works?** Hedy L. Kindler, MD - University of Chicago Medical Center

12:35 - 1:05 PM FRANK BROOKS STATE OF THE ART LECTURE MECKLENBERG CONFERENCE ROOM Introduction: Rodger Liddle, MD

The Implication of CCK Receptors in Pancreatic Cancer Development: a Myth or a Neglected Possibility?

Jean Morisset, PhD University of Sherbrooke

1:05 PM - 3:00 PM LUNCH & POSTER VIEWING KRUMLOVSKY ATRIUM

1:50 DISCUSSION OF POSTERS OF DISTINCTION Discussion Leaders: Guy Groblewski, PhD & David Yule, PhD Please meet at registration

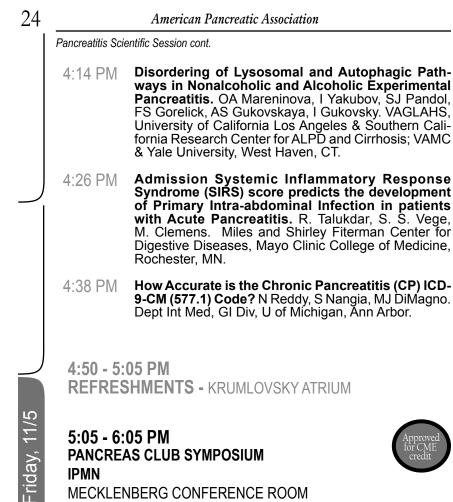
# 3:00 - 4:50 PM SCIENTIFIC SESSION: PANCREATITIS

MECKLENBURG CONFERENCE ROOM

Moderators: Vijay Singh, MD & Matthew DiMagno, MD

Featured Speaker: Rodger Liddle, MD, Duke University "Pancreatitis: More Than Just Enzymes"

- 3:14 PM Metabolic Bone Disease in Chronic Pancreatitis: A Systematic Review. V. Kadiyala, S. Yu, M. Muir, P.A. Banks, D.L. Conwell. Center for Pancreatic Disease, Division of Gastroenterology, Endoscopy and Hepatology; Brigham and Women's Hospital Medical Library, Brigham and Women's Hospital; Harvard Medical School, Boston MA
- 3:26 PM Intrapancreatic Fat Increases Local Necrosis in Obese Patients via Unsaturated Fatty Acids (UFAs). S. Navina, C. J. Baty, L. Orlichenko, J. Karlsson, L. Nichols, V. Singh. Departments of Pathology; Cell Biology & Physiology; Medicine, University of Pittsburgh, Pittsburgh, PA.
- 3:38 PM Clinical Outcome after the Frey Procedure: The Paradox of Symptom Resolution and the Severity of Chronic Pancreatitis. M A Makary, V Singh, Y Cui, P Okolo, A Kalloo, F Eckhauser, D K Andersen. Johns Hopkins Multi-disciplinary Pancreatitis Clinic, Baltimore, MD.
- 3:50 PM Ly-6Chi Monocytes Regulate Acute Pancreatitis Severity by Generating TNF-α. G. Perides, J. M. Laukkarinen, J.S. Duffield, M. L. Steer. Dept. of Surgery, Tufts Medical Canter and Tufts University School of Medicine, Boston, MA; Dept. of Medicine, Brigham & Women's Hospital and Harvard Medical School, Boston, MA.
- 4:02 PM Deletion of Cationic Trypsinogen or Cathepsin B Gene in Mice doesn't Influence Caerulein Induced Activation of Nfkb in Pancreas. R. Dawra, L. Rishi Delori, A. Bekolay, R.P. Sah, A.K. Saluja. Department of Surgery, University of Minnesota, Minneapolis MN.





MECKLENBERG CONFERENCE ROOM Moderators: William Nealon, MD & Kyoichi Takaori, MD, PhD

Natural History of IPMN L. William Traverso, MD - St. Luke's Center for Pancreatic Disease, Boise

International Guidelines for Resection: History & Logic Masao Tanaka, MD, PhD - Kyushu University

How much to Resect? How to Follow? Michael Farnell, MD - Mayo Clinic

#### 6:05 - 6:30 PM APA BUSINESS MEETING MECKLENBERG CONFERENCE ROOM

#### **President's Address**

Suresh Chari, MD

## Report from the Secretary-Treasurer

Ashok K. Saluja, PhD

#### **Report on Pancreapedia**

John Williams, MD, PhD

6:30 - 7:30 PM WINE & CHEESE RECEPTION - KRUMLOVSKY ATRIUM

Friday, 11/5

# 8:30 - 10:45 AM SCIENTIFIC SESSION: BASIC SCIENCE

MECKLENBURG CONFERENCE ROOM

Moderators: Minoti Apte, MD, PhD & Fred Gorelick, MD

Featured Speaker: John Williams, MD, PhD, University of Michigan "Deconstructing the Pancreas as a Collection of Cellular Machines"

8:45 AM The Chemical Chaperon 4- Phenylbutyric Acid Increases Amylase Secretion, Reduces Trypsin Activation and Endoplasmic Reticulum Stress in Pancreatic Acini. A. Malo, C. Schafer, B. Goke, CH. Kubisch. Department of Medicine II, University of Munich, Germany; Department of Gastroenterology, Clinic Neumarkt, Germany.

- 8:57 AM Tobacco Carcinogen NNK (4-[Methylnitrosamino]-1-[3-Pyridyl]-1-Butanone) Induces Zymogen Activation In In-Vitro And In-Vivo Models Of Acute Pancreatitis. S. Minervini, A. Raoof, C. Shugrue, F. Gorelick, T. Kolodecik, E. Thrower. Section of Digestive Diseases, VA Connecticut Healthcare, West Haven, & Yale University School of Medicine, New Haven, Connecticut
- 9:09 AM Stellate Cell-Derived Dickkopf-3 (DKK3) Induces PDAC Tumor Progression and Chemoresistance. H. Husted, T. Moore, D. Deng, V. Ramachandran, T.Arumugam, C. D. Logsdon, R. F. Hwang. Depts. of Surgical Oncology and Cancer Biology, The University of Texas-M.D. Anderson Cancer Center, Houston TX.
- 9:21 AM Transformation of Pancreatic Epithelial Cells by BrafV600E. V. A. Appleman, D. S. Klimstra, B. C. Lewis. Program in Gene Function and Expression, University of Massachusetts Medical School, Worcester, MA; Department of Pathology, Memorial Sloan-Kettering Cancer Center, New York, NY.

9:33 AM

Saturday, 11/6

Protons, Co-Released during Secretion, are a Negative Feedback Extracellular Messenger and Contribute to the Early Tissue Damage in Secretagogue-Induced Pancreatitis. N.Behrendorff, P.Thorn. School of Biomedical Sciences, University of Queensland, Queensland, Australia.

- 9:45 AM C-Src Resides on the Golgi in Acinar Cells and is Involved in Caerulein Mediated Trypsinogen Activation. L. S. Orlichenko, C. J. Baty, J. Karlsson, V. P. Singh. Departments of Medicine; Cell Biology & Physiology, University of Pittsburgh, Pittsburgh, PA.
- 9:57 AM Importance of Apical BK Channels on Pancreatic Duct Bicarbonate Secretion. V. Venglovecz, P. Hegyi, Z. Rakonczay, L. Tiszlavicz, M. Grunet, A. Nardi, M.A. Gray. Department of Pharmacology and Pharmacotherapy; First Department of Medicine; Department of Pathology, University of Szeged; NeuroSearch A/S, Ballerup, Denmark and National Research Foundation Centre for Cardiac Arrhythmia, University of Copenhagen, Copenhagen, Denmark; Institute for Cell and Molecular Biosciences, Newcastle upon Tyne, UK.
- 10:09 AM Intracellular Calcium Signaling in Pancreatic Stellate Cells: Role in Pancreatic Disease. JH Won, J Zhang, B Ji, CD Logsdon, DI Yule. Department of Pharmacology and Physiology, University of Rochester Medical School, Rochester, NY; Department of Cancer Biology, M.D Anderson Cancer, University of Texas, Houston, TX.
- 10:21 AM Comparative Proteomic Analysis (GeLC-MS/MS) Identifies Differentially-Expressed Proteins in Secretin Stimulated Endoscopic (ePFT) Collected Pancreatic Fluid. J. Paulo, P. A. Banks, D.L. Conwell, H. Steen. Center for Pancreatic Disease, Division of Gastroenterology, Hepatology and Endoscopy, Brigham and Women's Hospital, Boston, MA; Proteomics Core Lab, Children's Hospital Boston, Boston, MA; Harvard Medical School, Boston, MA.
- 10:33 AM A Novel PI3K-AKT-GLI3 Axis Activates The Machinery Controlling Autophagy In Pancreatic Cancer Cells. A.E. Lo Ré, L.L. Almada, R. Pardo, M.I. Molejón, S.F. Elsawa, M.I. Vaccaro, M. E. Fernandez-Zapico. Department of Biological Sciences, School of Biochemistry, University of Buenos Aires, Buenos Aires, Argentina; Schulze Center for Novel Therapeutics, Mayo Clinic, Rochester, MN

10:45 - 11:00 AM REFRESHMENTS - KRUMLOVSKY ATRIUM

### 11:00 AM - 12:15 PM PARALLEL SESSIONS



SESSION 1: EPIGENETICS & PANCREATIC DISEASE: FROM MOLECULES TO MICE PRITZKER AUDITORIUM Moderator: Martin Fernandez-Zapico, MD & Anna Means, PhD

Role of Chromatin in Pancreatic Diseases Raul Urrutia, MD, Mayo Clinic

**MicroRNAs as Mediators of Pancreatic Malignant Phenotype** Frank U. Weiss, MD, Greifswald University

**Studying Epigenetics in Mice: the NFAT Model** Volker Ellenrieder, MD, Philipps-Universitat Marburg

SESSION 2: DISTINGUISHING AUTOIMMUNE PANCREATITIS FROM PANCREATIC CANCER MECKLENBERG CONFERENCE ROOM



Moderators: Tooru Shimosegawa, MD, PhD & Rahul Pannala, MD

Panelists:

Saturday, 11/6

# Clinical and Pancreatogram Clues

Terumi Kamisawa, MD - Tokyo Metropolitan Komagome Hospital **Clues on Cross-Sectional imaging** Naoki Takahashi, MD - Mayo Clinic **Role of Pancreatic Biopsy** Daniel Longnecker, MD - Dartmouth University **Surgeon's Perspective** Douglas B. Evans, MD - Medical College of Wisconsin **Putting it All Together** Suresh Chari, MD - Mayo Clinic

Case Presentations Santhi Swaroop Vege, MD 12:15 - 2:00 PM LUNCH & POSTER VIEWING KRUMLOVSKY ATRIUM

12:55 DISCUSSION OF POSTERS OF DISTINCTION Leaders: Joe Hines, MD & Jens Werner, MD Please meet at registration

2:00 - 3:00 PM BEYOND THE HORIZON: NANOMEDICINE APPROACHES TO DIAGNOSIS & TREATMENT OF PANCREATIC CANCER MECKLENBERG CONFERENCE ROOM



Moderator: Debabrata Mukhopadhyay, PhD & Julia Mayerle, MD, PhD

### Targeting Pancreatic Cancer and its Microenvironment for Therapeutics: Application of Nanotechnology

Debabrata Mukhopadhyay, PhD, Mayo Clinic

New Class of Diagnostic and Therapeutic Cancer Tools Using Nanotechnology

Sara Hook, PhD, NCI Alliance for Nanotechnology in Cancer

New Nanomedicine Based Molecular Imaging and Therapy Approaches For Pancreatic Cancer

Kattesh V. Katti, PhD, University of Missouri

End of Program

Saturday, 11/6

St Annual Meeting of the

# American Pancreatic Association Solution

POSTER SESSIONS

### THURSDAY, NOVEMBER 4 7:00 AM - 6:00 PM POSTER SESSION 1 KRUMLOVSKY ATRIUM

Posters P1:1-7 Posters of Distinction

#### P1-1

Acute Pancreatitis Accelerates the Initiation and Progression to Pancreatic Ductal Adenocarcinoma in Mice Expressing Oncogenic Kras in the Nestin Cell Lineage. C. Carrière, A.L. Young, D.S. Longnecker, M. Korc. Departments of Medicine, and Pharmacology and Toxicology, Dartmouth Medical School, Hanover, NH and the Norris Cotton Comprehensive Cancer Center at Dartmouth Hitchcock Medical Center, Lebanon, NH; Department of Pathology, Dartmouth Medical School, Hanover, NH. P1-2

MicroRNA Expression as a Predictive Marker for Gemcitabine Response After Surgical Resection of Pancreatic Cancer. K Ohuchida, K Mizumoto, T Kayashima, H Fujita, T Moriyama, T Ohtsuka, S Takahata, Masao Tanaka. Department of Surgery and Oncology; Department of Advanced Medical Initiatives, Graduate School of Medical Sciences, Kyushu University, Fukuoka, Japan.

P1-3

New-onset Diabetes in Pancreatic Cancer: A Study in the Primary Care Setting. G. Aggarwal, G.M. Petersen, S.T. Chari. Division of Gastroenterology, Department of Epidemiology, Mayo Clinic, Rochester, MN. P1-4

INGAP Induces In Vitro Endocrine Differentiation of Human Pancreatic Duct Epithelial Cells Grown in 3D-Cultures. B. Assouline-Thomas, D. Ellis, J. Makhlin, M. Petropavlovskaia, L. Rosenberg. Department of Surgery, McGill University, Montréal, QC, Canada.

Modulating the Immune Response in Kras-Induced Pancreatic Neoplasia. Y. Pylayeva-Gupta, Kyoung Lee, J. Mallen-St. Clair, M. Connolly, G. Miller, D. Bar-Sagi. Department of Biochemistry, New York University School of Medicine, New York, NY; Departments of Surgery and Cell Biology, New York University School of Medicine, New York, NY.

#### P1-6

Establishing the Final Stages of Acinar Cell Differentiation Utilizing Inducible Mist1 Expression. D. DiRenzo, S.F. Konieczny. Department of Biological Sciences and the Purdue Center for Cancer Research, Purdue University, West Lafayette, IN

P1-7

Results of Surgery after Neoadjuvant Therapy for Primarily Irresectable Pancreatic Cancer in 257 Patients. O. Strobel, V. Berens, W. Hartwig, T. Hackert, U. Hinz, S. Fritz, L. Schneider, M. Büchler, J. Werner. Dept. of Surgery, University of Heidelberg, Heidelberg, Germany

P1-8

The Role of EUS Guided Elastography to Diagnose Solid Pancreatic Mass Lesions. J. Mayerle, P. Simon, E.J. Dickson, M.M. Lerch, C. R. Carter, C.J. McKay. Lister Departmen of Surgery, Glasgow Royal Infirmary, Glasgow, Scotland, UK; Department of Medicine A, Ernst-Moritz-Arndt-University, Greifswald, Germany.

P1-9

Selective, High-Affinity Inhibitors of Human Chymotrypsin C (CTRC). A. Szabó, K. Zboray, D. Héja, D. Szakács, G. Pál, M. Sahin-Tóth. Department of Molecular and Cell Biology, Boston University, Boston, MA; Department of Biochemistry, Eotvos University, Budapest, Hungary.

P1-10

Asparagine-linked glycosylation of human chymotrypsinogen C (CTRC). M. Bence, M. Sahin-Tóth. Department of Molecular and Cell Biology, Boston University, Boston, MA.

P1-11

CanSto Pancreas: An Information Management System for Clinico-Pathological and Biospecimen Data. A Johns, G Hammond, M Thomas, A Biankin, J McBride. Cancer Research Program and Peter Wills Bioinformatic Centre, Garvan Institute of Medical Research, Sydney Australia. P1-12

Inositol 1,4,5-Trisphosphate Receptor Type 2 Deficiency Leads to Accumulation of Zymogen Granules in Pancreatic Acinar Cells. A. I. Orabi, Z. M. Mannan, A. U. Shah, S. Z. Husain. Department of Pediatrics, Yale University School of Medicine, New Haven, CT.

P1-13

The Transcription Factor PAX6 Activates Expression Of The Chemokine Receptor CXCR4 In Pancreatic Cancer. J. B. Mascarenhas, J. D. Kubic, A. E. Ludvik, D. Lang. Department of Medicine, University of Chicago, Chicago, IL.

Pancreatic Cancer Microenvironment: Tumor-Host Interactions. D. Swartz-Basile, D. Basile, J. Friedrich, P. White, K. Ziegler, S. Wang, H. Pitt, N. Zyromski. Department of Surgery; Department of Cellular and Integrative Physiology, Indiana University School of Medicine, Indianapolis, IN. P1-15

Multiple Organ Failure Following Acute Necrotizing Pancreatitis with Hemorrhage, and Ruptured Pseudocyst. D. Thirabanjasak. Department of Pathology, Faculty of Medicine, Chulalongkorn University, Bangkok. Thailand. P1-16

Pancreatic Fluid Oxidized Fatty Acids (OxFA) are Elevated in Non-Calcific Chronic Pancreatitis (CP). T. Stevens, M.P. Berk, Y.M Chung, R Zhang, A. Costanzo, M.P. Bronner, A.E. Feldstein. Cleveland Clinic, Cleveland, OH. P1-17

Targeting Pancreatic Stellate Cells (PSC) to Treat Pancreatic Cancer. V. Gonzalez-Villasana, G.N. Armaiz-Pena, R. Hwang, C. Rodriguez-Aguayo, A.K. Sood, C. Logsdon, G. Lopez-Berestein. Departments of Experimental Therapeutic; Cancer Biology, Gynecologic Oncology and the Center for RNAi and Non-coding RNA, and Surgery University of Texas, M.D. Anderson Cancer Center, Houston, TX; Universidad Autonoma de Nuevo Leon, San Nicolas de los Garza, Nuevo Leon, Mexico P1-18

The Role of Cyclooxygenase-2 Gene Polymorphisms in Pancreatic Carcinogenesis. R. Talar-Wojnarowska, A. Gasiorowska, M. Olakowski, A. Lekstan, P. Lampe, B. Smolarz, H. Romanowicz-Makowska, A. Kulig, E. Malecka-Panas. Dep of Digestive Tract Diseases, Medical University of Lodz; Dep of Digestive Tract Surgery, Silesian Medical University, Katowice; Lab of Molecular Genetics, Institute of Polish Mother's Memorial Hospital, Lodz, Poland

P1-19

Pancreatic Cancer Cell Invasion is Increased by Hypoxia Induced MMP9 mRNA-Expression. P. Puolakkainen, H. Mustonen, S. Vainionpää, E. Kemppainen, H. Repo, H. Pelli. Department of Surgery, Helsinki University Central Hospital; Department of Bacteriology and Immunology, Haartman Institute, University of Helsinki; Department of Surgery, Turku University Central Hospital, Finland.

P1-20

Laparoscopic Frey Procedure. M A Makary, Tejwant Datta, V Singh, P Okolo, A Kalloo, D K Andersen. Johns Hopkins Multi-disciplinary Pancreatitis Clinic, Baltimore, MD

P1-21

IkBa Inhibition Subdues LPS-Stimulated TNF-a Production in Isolated Acinar Cells. D. Williard, E. Twait, I. Samuel. VAMC & UI CCOM, Iowa City, IA. P1-22

Evidence for Anti-Tumor Activity and Improved Bioavailability of a Novel Curcumin Analog- CDF Against Pancreatic Tumors in Vivo. S. Banerjee, S. Ali, Z. Wang, A. Azmi, A. Ahmad, S. Padhye and F. H. Sarkar. Department of Pathology, Karmanos Cancer Institute, Detroit, MI.

Systems Biology: Implications in Assessing Drug Target Gene Signatures in Pancreatic Cancer. A.S. Azmi, R.M. Mohammad, Z. Wang, F.H. Sarkar. Department of Pathology; Department of Internal Medicine, Wayne State University, Detroit MI.

P1-24

New Surgical Procedure for Groove Apancreatitis. Y. Takeyama, T. Yasuda, H. Ishikawa, T. Nakai, M. Yamasaki, K. Kamei, Y, Nakata, M. Takemoto. Department of Surgery, Kinki University Faculty of Medicine, Osaka, Japan. P1-25

Molecular Mechanisms of L-Arginine Induced Experimental Acute Pancreatitis. O Masood, AK Siriwardena & J Bruce. Hepatobiliary Unit, Manchester Royal Infirmar; Faculty of Life Sciences, University Of Manchester. P1-26

An Automated Analyzer Provides Clinically Concordant Results to Manual Back Titration for Quantitation of Bicarbonate in Pancreatic Juice. N. Zhong, M. Topazian, S. T. Chari, A. K. Saenger, J.E. Clain, F. C. Gleeson, M.J. Levy, E. Rajan, F. T. Enders. Mayo Clinic, Rochester, MN P1-27

Self-Expandable Metalstent For Walled-Off Necrosis. Á. Pap, M. Burai, T. Tarpay. Department of Gastroenterology,National Institute of Oncology, Budapest, Hungary

P1-28

Frequency and Significance of Calcification in IPMN. R Perez-Johnston, O Narin, M Mino-Kenudson, T Ingkakul, AL Warshaw, C Fernandez-del Castillo, VD Sahani. Depts. of Radiology, Pathology and Surgery, Massachusetts General Hospital, Boston, MA.

P1-29

Central Role of Dendritic Cells in Pancreatitis. NE Cieza-Rubio, A Bedrosian, A Nguyen, J Ibrahim, A Malhotra, JHenning, M Connolly, RM. Barilla, P Tan, S Cohen, G Miller. Department of Surgery, New York University, New York, NY. P1-30

Calcium Phosphate Nanoparticles for Selective Targeting of Human Pancreatic Cancers. G. Matters, C. McGovern, B. Barth, E. Altınoğlu, J. Adair, M. Kester, J. Smith. Depts. of Medicine and Pharmacology, Pennsylvania State University, Hershey, PA; Dept. of Materials Science Engineering, Pennsylvania State University, University Park, PA P1-31

Continuous Subcutaneous Insulin Infusion (CSII) Therapy for Management of Apanceatic Diabetes Mellitus. K.Altaf, J. Adu, G. Morrison, Q. M. Nunes, C. Halloran, J.P. Neoptolemos, C.P. Weston, R. Sutton. Liverpool NIHR Pancreas Biomedical Research Unit, Division of Surgery and Oncology; Department of Endocrinology, Royal Liverpool University Hospital, Liverpool. UK.

Reverse Engineering of Gene Regulatory Networks Governing Cell-Cell Communication in the Pancreatic Cancer. Z. Rogon, A. Bauer, H. Busch, T. Giese, E. Soyka, A. Szabowski, J. Hoheisel, M.W. Büchler, J. Werner, R.Eils, N.A. Giese. Theoretical Bioinformatics and Functional Genomics, German Cancer Research Center/DKFZ, Heidelberg; FRIAS, Albert-Ludwigs-University, Freiburg; Institute of Immunology and Department of Surgery, University Hospital Heidelberg, Germany P1-33

Selective Non-Resectional Management of Pancreatic Cystic Tumors: A Cohort Study Based On A Cystic Tumor Registry. S Sanyal, AJ Sheen, AK Siriwardena. Regional Hepatobiliary Surgery Unit, Manchester Royal Infirmary, Manchester UK.

P1-34

Novel Model of Acute Pancreatitis Severity and Outcome Prediction. S.I. Galeev, Y.P.Abdullaev, M.A. Rubtsov. Department of Surgery, Saint-Petersburg State Medical Academy n.a. Mechnicov, Russi; Department of Surgery, Clinical Hospital of St. Luke, Saint-Petersburg, Russia P1-35

Expression of Multiple Adenylate Cyclase Isoforms in Mouse Pancreatic Acini, Islets and Ducts. ME Sabbatini, JA Williams. Department of Molecular and Integrative Physiology, University of Michigan P1-36

Three-Dimensional Collagen I Promotes Gemcitabine Resistance in Pancreatic Cancer through Increased Membrane Type 1-Matrix Metalloproteinase-Mediated HMGA2 ESSxpression. S. Dangi-Garimella, S.B. Krantz, M.R. Barron, M.A. Shields, P.J. Grippo, D.J. Bentrem, H.G. Munshi. Division of Hematology/Oncology, Department of Medicine; Division of Surgical Oncology, Department of Surgery, Feinberg School of Medicin;The Jesse Brown V.A. Medical Center; The Robert H. Lurie Comprehensive Cancer Center of Northwestern University, Chicago. P1-37

Characterization of Unique Polycomb Repressive Complexes in Pancreatic Cancers. A Grzenda, D Moise, R Urrutia. Laboratory of Chromatin Dynamics and Epigenetics, Mayo Clinic, Rochester, MN.

P1-38

The Proteome of Mesenteric Lymph in Health, Acute Pancreatitis and Shock: Implications for Clinical Trials. A Mittal, M Middleditch, K Ruggiero, B Loveday, JA Windsor, AJP Phillips. Department of Surgery and School of Biological Sciences, University of Auckland, Auckland, New Zealand. P1-39

Does the 3-aminobenzamide effect on bacterial translocation affect experimental acute necrotizing pancreatitis? S. Aydin, A. T. Isik, E. Cinar, O. Demir, C. Akay, M. Ozyurt, S. Deveci, M. R. Mas. Department of Surgery, Guven Hospital, A. Ayranci, Ankara, Turkey, Department of Internal Medicine and Department of Infection Disease, Gulhane school of Medicine, Ankara, Turkey; Department of Pharmacology, Department of Microbiology, Department of Pathology, Gulhane School of Medicine, Ankara, Turkey.

Thursday, 11/4

P1-40

Pigment Epithelium-Derived Factor Increases Neuropathy and Fibrosis in Pancreatic Cancer. M Erkan, T Samkharadze, C Reiser-Erkan, E Demir, C Michalski, H Friess, J Kleeff. Dept. of Surgery, Technische Universität München, Munich, Germany.

P1-41

Development and Validation of a miRNA-Based Laboratory Developed Test for Pancreatic Cancer. L.S. Lee, A.M. Bellizzi, D.L. Conwell, M. Sanders, D.C. Whitcomb, G. Rateb, C. Menard, J.A. Morisset, V. Shivakumar, S. Hahn, G.J. Tsongalis, M. Lloyd, B. Andruss, A. Adai, A.E. (Szafranska) Schwarzbach. Division of Gastroenterology, Brigham & Women's Hospital, Boston, MA; Division of Gastroenterology, University of Pittsburgh Medical Center, Pittsburgh, PA; Department of Gastroenterology, University of Sherbrooke, Fleurimont, Canada; H Lee Moffitt Cancer Center & Research Institute, Tampa, FL; Department of Pathology & Internal Medicine, Rühr University, Bochum, Germany; Department of Pathology, Dartmouth Hitchcock Medical Center, Lebanon, NH; Asuragen, Austin, TX.

P1-42

Novel Function of FUT-175 as Apoptosis Inducer. J. Ling, Z. Li, T. Uwagawa, P.J. Chiao. Department of Surgical Oncology, Department of Molecular and Cellular Oncology, The University of Texas M. D. Anderson Cancer Center, Houston, Texas, USA, and Graduate Program in Cancer Biology, The University of Texas Graduate School of Biomedical Sciences at Houston, Houston, Texas.

P1-43

Role of Cathepsin B in the Pathogenesis of Chronic Pancreatitis. RP Sah, R Dawra, A Bekolay, A Saluja. Division of Basic and Translational Research, Department of Surgery, University of Minnesota Medical School, Minneapolis, MN.

P1-44

PRSS1, SPINK1 and CFTR mutations in families and unrelated subjects with idiopathic early onset chronic (CP) or recurrent acute pancreatitis (RAP) in Mexico City. M Pelaez-Luna, G Robles-Diaz, S Canizales, MT Tusie-Luna. Experimental Medicine Unit. School of Medicine-Universidad Nacional Autonoma de Mexico (UNAM), Mexico City, Gastroenterology Department, INCMSZ, Mexico City. Biomedic Research Institute. UNAM. Mexico City, Mexico.

P1-45

Pancreatic Metaplasia Involves Changes in Both Cell Identity and Architecture. K.C. Ray, S.A. Blaine, M. Gannon, G. Gu, M.K. Washington, and A.L. Means. Depts. Of Surgery; Medicine; Cell and Developmental Biology; and Pathology, Vanderbilt University Medical Center, Nashville, TN. P1-46

Characterization of CD24 Expression in Intraductal Papillary Mucinous Neoplasms and Ductal Carcinoma of the Pancreas. N. Ikenaga, K. Ohuchida, H. Fujita, K. Mizumoto, M. Tanaka. Departments of Surgery and Oncology, Kyushu University, Fukuoka, Japan.

#### P1-47

Targeting the Synergistic Crosstalk between Insulin and G protein-coupled Receptor Signaling by Metformin Potently Inhibits Pancreatic Cancer Cell Proliferation in vitro and in vivo. K Kisfalvi, J Sinnett-Smith, G Eibl, E Rozengurt. Department of Medicine, Department of Surgery, David Geffen School of Medicine, University of California, Los Angeles. P1-48

Protective Effects of Caffeine in an Experimental Biliary Pancreatitis Model. R. Mukherjee, W. Huang, M. Cane, V. Elliott, A. Tepikin, D.N. Criddle, R. Sutton. Division of Surgery & Oncology and NIHR Pancreatic Biomedical Research Unit, Royal Liverpool University Hospital, UK; Department of Physiology, University of Liverpool, UK.

P1-49

Binucleation and Polyploidization in Human Exocrine Pancreas. J.M. Xanthopoulos, D. Jain, F.S. Gorelic, E. S. Swenson. Section of Digestive Diseases, Department of Internal Medicine; Department of Pathology, Yale University School of Medicine, New Haven, CT; West Haven Veteran's Affairs Medical Center, West Haven, CT.

P1-50

Impact of the Histone Deacetylase Inhibitor 4-Phenylbutyrate on Apoptotic Tumor Cell Clearance by Macrophages in Pancreatic Carcinoma. L. Shmorgun, D. Dovzhanskiy, K. Felix, T. Hackert, W. Hartwig, T. Welsch, M. W. Büchler, J. Werner. Department of General, Visceral and Transplantation Surgery, University of Heidelberg, Germany P1-51

Murine Pancreatic Duct Ligation Causes Acute Lung Injury and 100% Mortality: A Novel Model for Investigating Acute Pancreatitis. I Samuel, Z Yuan, D Meyerholz, E Twait, D Williard, D Kempuraj.

Surgery, VAMC/Univ of Iowa, Iowa City, IA.

P1-52

Pancreatic Cancer Cells Respond to Triptolide via Early Activation of Cell Signaling Pathways. V. Sangwan, R. Chugh, N. Mujumdar, S. Banerjee, T.N. Mackenzie, V. Dudeja, S. Vickers, A. Saluja. Department of Surgery; Masonic Cancer Center, University of Minnesota, Minneapolis, MN. P1-53

All patients with Acute Pancreatitis and Persistent Organ Failure do not require Organ Failure Specific Interventions. R. Talukdar, S.S. Vege, M. Clemens Miles and Shirley Fiterman Center for Digestive Diseases, Mayo Clinic College of Medicine, Rochester, MN. P1-54

Structure-Activity Relationships of Xanthines in Ca2+ Signalling, Phosphodiesterase Inhibition and Acute Cerulein-Induced Pancreatitis. M. Cane, W. Huang, R. Mukherjee, A.V. Tepikin, R. Sutton, D.N. Criddle. Department of Physiology, University of Liverpool, UK; NIHR Liverpool Pancreas Biomedical Research Unit, Royal Liverpool University Hospital, Liverpool, UK. P1-55

Clinical Implication of CXCL1 mRNA Expression Levels in Pancreatic Ductal Adenocarcinoma. H. Fujita, K. Ohuchida, K. Mizumoto, K. Nakata, J. Yu, T. Kayashima, H. Sakai, M. Onimaru, T. Manabe, T. Ohtsuka, M. Tanaka.

Department of Surgery and Oncology, Graduate School of Medical Sciences, Kyushu University, Fukuoka, Japan; Kyushu University Hospital Cancer Center, Fukuoka, Japan; Department of Anatomic Pathology, Graduate School of Medical Sciences, Kyushu University, Fukuoka, Japan. P1-56

Cigarette Smoke Extract (CSE) But Not Nicotine Enhances Secretagogue Evoked Pancreatic Acinar Necrosis. MJ DiMagno, A Shah, T Tesmer, CC Chen, Y Osawa. Depts. of Med & Pharmacol, U of MI, Ann Arbor. P1-57

Analysis of Risk Factors and Management of Biliary Strictures Following Pancreaticoduodenectomy. M Dal Molin, G Butturini, S Partelli, D Daskalaki, GC Mansueto, P Pederzoli, C Bassi. Surgical and Anaesthesiological Department, Policlinico G.B. Rossi, University of Verona; Department of Radiology, Policlinico G.B. Rossi, University of Verona. P1-58

Role of Pancreatic Stellate Cells in Pancreatic Cancer: The Urokinase Plasminogen Activator System. E. Fiala-Beer, Z. Xu, P. Phillips, L. Yang, D. Goldstein, R. Pirola, J. Wilson, M. Apte. Pancreatic Research Group, University of New South Wales, Sydney, Australia. P1-59

Are Chronic Pancreatitis And Acute Recurrent Pancreatitis Two Different Faces Of The Same Coin Or Two Different Diseases? RA Zuppardo, L Frul-Ioni, S Bertolini, C Calzolari, SK Singh, A Bertelè, V Corrente, G Leandro, F Di Mario, A Franzè, GM Cavestro. University of Parma, Italy, Dept of Clinical Science, University of Verona, Italy, Dept of Surgical and GI Sciences, Boston University School of Medicine, Medical Center, Section of Gastroenterology, Parma Medical Center, GI Unit, Italy, P1-60

Eps8 is Subjected to Chaperone-Mediated Autophagy at Lysosomes in Pancreatic Cancer Cells. T. Welsch, A. Younsi, A. Disanza, A. M. Cuervo, G. Scita, J. Schmidt. Department of Surgery, University of Heidelberg, Germany; FIRC Institute of Molecular Oncology, Milan, Italy; Department of Developmental and Molecular Biology, Albert Einstein College of Medicine, New York.

P1-61

The Mek/Erk Pathway Promotes Notch-Dependent Signaling in Human Pancreatic Cancer Cells. I. Tremblay and Marie-Josée Boucher. Gastroenterology Unit, Dept. of Medicine, Fac. Of Medicine and Health Sciences, University of Sherbrooke, Canada P1-62

A Single Nucleotide Polymorphism in Tumor Suppressor Gene SEL1L as Predictive and Prognostic Marker for Pancreatic Ductal Adenocarcinoma. Q. Liu,\* J. Chen,\* B. Mai, C. Amos, A.M. Killary, S. Sen, M.L. Frazier. Department of Epidemiology, Program in Molecular Genetic Technology, The University of Texas MD Anderson Cancer Center, School of Health Professions, Houston, Texas; Department of Genetics, Department of Molecular Pathology, The University of Texas MD Anderson Cancer Center, Houston, Texas; \*These authors contributed equally to this work.

#### P1-63

Brefeldin A Causes Retrograde Collapse of the Golgi, Prevents Co-Localization, Trypsinogen Activation, and Reduces Severity of Pancreatitis. L. S. Orlichenko, V. P. Singh. Division of Gastroenterology, Hepatology and Nutrition, University of Pittsburgh, Pittsburgh, PA. P1-64

Evaluation of M-ANNHEIM Classification in an Italian Series of Patients Suffering from Chronic Pancreatitis. L.Frulloni, A.Amodio, A.Katsotourchi, T.Viaro, R.Niensted, T.Tumelero, M.Pellicciari, L.Benini, I.Vantini. Department of Medicine, University of Verona, Italy

P1-65

Gemcitabine Induction of P21Cip/Waf Promotes Resistance to Apoptosis in Pancreatic Cancer. T Arumugam, V Ramachandran, T Fujii, RF Hwang, W Choi, DJ McConkey, CD Logsdon. Dept. of Cancer Biology, Surgical Oncology, Urology, UT MD Anderson Cancer Center, Houston, TX. P1-66

Effects of Chai-Qin-Cheng-Qi Decoction on Serum Cholecystokinin Concentration and Acinar Cell Cytosolic Calcium Overload in Acute Pancreatitis. P. Xue, T. Jing, L. Wen, L. Huang, ZY Cheng, W. Huang, X.N. Yang, Q. Xia. Department of Integrated Traditional Chinese and Western Medicine, West China Hospital, Sichuan University, China; Departments of Surgery and Physiology, Royal Liverpool Hospital, University of Liverpool, UK P1-67

Plasma Metabonomic Change of Acute Pancreatitis in Rats. W. F. Tang, J Li, HL Gong, M.H. Wan, Y.X. Liu, Q Xia. Department of integrative medicine, West China Hospital, Sichuan University. Chengdu, 610041 PR China P1-68

EUS-Guided Fine Needle Injection of a Chemotherapeutic Agent into the Pancreas. S. Cizginer, AR. Kambadakone, M. Mino-Kenudson, CE. Macfarlane, WR. Brugge. GI Unit, Department of Radiology, Department of Pathology, MGH, Boston, M,AUSA, Biocompatibles UK Ltd, Farnham, Surrey, UK. P1-69

Expression Patterns of Cytoskeletal Proteins in Human Pancreatic Cancer Cells in a Novel Three-Dimensional Spheroidal Culture. Y. Kawamoto, Y. Matsuda, T. Ishiwata, T. Yamamoto, T. Suzuki, K. Kawahara, Z. Naito. Department of Pathology, Integrative Oncological Pathology, Nippon Medical School, Tokyo, Japan.

P1-70

High Number of Acinar Cells in the Cut Edge of Pancreas Increases the Risk for Immediate Postoperative Complications After Pancreaticoduodenectomy. M. Laaninen, M. Bläuer, K. Vasama, S. Räty, J. Sand, I. Nordback, J.S Laukkarinen. Dept. of Gastroenterology and Alimentary Tract Surgery, and Tampere Pancreas Laboratory, Dept. of Pathology, Tampere University Hospital, Tampere, Finland.

## FRIDAY, NOVEMBER 5 7:00 AM - 6:30 PM POSTER SESSION 2 KRUMLOVSKY ATRIUM

### Posters P2:1-7 Posters of Distinction

P2-1

Patients with Acute Pancreatitis (AP) Complicated by Organ Dysfunction Show Abnormal Lymphocyte Signaling. J.Oiva, H. Mustonen, M.-L. Kylänpää, L. Kyhälä, S. Siitonen, E. Kemppainen, H. Repo, P. Puolakkainen. Department of Surgery, Helsinki University Central Hospital, Department of Bacteriology and Immunology, Haartman Institute, University of Helsinki; Helsinki, Finland.

P2-2

Experimental Acute Pancreatitis in Reg3α (PAP2) Knockout Mice and Reg1 Knockout Mice. C. Huan, M. Mueller, A. Stanek, C.M. DeMarinis, M.E. Zenilman. Department of Surgery, State University of New York, Downstate Medical Center, Brooklyn, NY

P2-3

Alcohol and Acute Pancreatitis – The Effect of the Type of Beverage. O Sadr Azodi, N Orsini, Å Andrén-Sandberg, A Wolk. Division of Surgery, CLINTEC, Karolinska Institute, Karolinska Universitetssjukhuset Huddinge, Stockholm; Division of Nutritional Epidemiology, The National Institute of Environmental Medicine, Karolinska Institute, Stockholm, Sweden P2-4

Alcohol Promotes Pancreatic Mitochondria Depolarization by Sensitizing the Permeability Transition Pore to Ca2+. N Shalbueva, OA Mareninova, SJ Pandol, AS Gukovskaya. VAGLAHS, University of California Los Angeles & Southern California Research Center for ALPD and Cirrhosis, Los Angeles, CA.

P2-5

BMP Regulates Autophagy in Acute Pancreatitis (AP). M Tyler, Y Cao, W Yang, J Aronson, V Popov, C Chao, MR Hellmich, TC Ko. Department of Surgery, UTHSC-Houston; UTMB, Galveston, TX. P2-6

Do Clinical Outcomes post-ERCP Predict Clinical Outcomes post-Puestow Procedure for Patients with Chronic Pancreatitis? B. Young, D. Simeone, R. Kwon. Divison of Gastroenterology, University of Michigan, Ann Arbor, MI; Department of Surgery, University of Michigan, Ann Arbor, MI; Division of Gastroenterology, University of Michigan, Ann Arbor, MI. P2-7

The greater severity of pancreatitis in CFTR deficient mice is independent of acinar cell effects. S. Trapp, P. Pallagi, J. Mayerle, G. Biczo, A. Dummer, Z. Rakonczay, M. Sendler, F.-U. Weiss, W. Halangk, P. Hegyi, M. M. Lerch. Department of Medicine A, Ernst-Moritz-Arndt-University Greifswald, Germany; Division of Experimental Surgery, Otto-von-Guericke-University Magdeburg, Germany, University of Szeged, First Department of Medicine, Pancreatic Research Group.

Mitochondial Injury Precedes NF-κB and Premature Trypsinogen Activation in L-lysine-induced Acute Pancreatitis in Rats. Z. Rakonczay Jr., G. Biczó, S. Dósa, N. Shalbuyeva, Z. Hracskó, Z. Kukor, V. Venglovecz, I.S. Varga, B. Iványi, T. Wittmann, A. Gukovskaya, T. Takács, P. Hegyi. First Dept. of Medicine, Dept. of Pathology, Dept. of Biochemistry and Molecular Biology, Dept. of Pharmacology and Pharmacotherapy, University of Szeged, Szeged, Hungary; Veterans Affairs Greater Los Angeles Healthcare System, University of California, Los Angeles, CA, USA; Dept. of Medical Chemistry, Molecular Biology and Pathobiochemistry, Semmelweis University, Budapest, Hungary.

P2-9

Impact of EUS-FNA on Surgical Decision Making in Pancreatic Neuroendocrine Tumors (PNETs). A. Panossian, K. Gill, H. Bertani, C. De Angelis, E. Dabizzi, J. Stauffer, M. Grewal, J. Nguyen, M. Wallace, T. Woodward, M. Raimondo. Division of Gastroenterology & Division of Transplant Surgery, Mayo Clinic Florida, Jacksonville, FL; Division of Gastroenterology, Ospedale Le Molinette, Turin, Italy. P2-10

The Role of Innate Immunity in the Pathogenesis of Experimental Autoimmune Pancreatitis in Mice. A. Nishio, M. Yamashina, S. Nakayama, K. Uchida, T. Fukui, K. Okazaki. Third Department of Internal Medicine, Kansai Medical University, Moriguchi, Japan.

P2-11

Simultaneous Isolation of DNA, RNA and Proteins for Genetic, Epigenetic and Transcriptomic Analysis of Pancreatic Cancer. A Johns, C Toon, M Jones, A Mawson, M Brancato, A Gill, S Grimmond, A Biankin. Cancer Research Program, Garvan Institute of Medical Research, Sydney Australia; Department Anatomical Pathology, South Eastern Area Laboratory Services, Prince of Wales Hospital, Sydney Australia; Department of Anatomical Pathology, Royal North Shore Hospital, Sydney Australia; Queensland Centre for Medical Genomics, University of QLD, Brisbane Australia; Department of Upper GI Surgery, Bankstown Hospital, Sydney Australia. For the Australian Pancreatic Cancer Genome Initiative. P2-12

Low pH Uncouples Gap Junctions in the Pancreatic Acinar Cell. A. Reed, S. Husain, M. Nathanson, F. Gorelick. Departments of Medicine, Pediatrics, Yale University, New Haven, CT. P2-13

Dynamic Manganese-Enhanced Magnetic Resonance Imaging for Assessment of Pancreatic Beta Cell Function. A.H. Dhyani, X. Fan, L. Leoni, B.B. Roman. Department of Radiology, University of Chicago, Chicago IL. P2-14

Resection of Non-Functional Neuroendocrine Carcinoma of the Pancreas with and Without Synchronous Liver Metastasis Provides Excellent Survival. B. Kulemann, F. Makowiec, O. Sick, G. Seifert, U.T. Hopt, T. Keck. Department of Surgery, University of Freiburg, Germany.

Haplotypes in Melanoma Inhibitory Activity 2 Correlate with Survival and Chemoresistance in Pancreatic Cancer. B. Kong, C. W. Michalski, N. Valkovska, S. Rieder, X. Hong, S. Streit, H. Friess, J. Kleeff. Department of Surgery, Technische Universität München, Munich, Germany P2-16

BHLHB2 Overexpression Is a Positive Prognostic Factor Indicating Gemcitabine Responsiveness in Pancreatic Cancer. C Reiser-Erkan, W Wang, M Erkan, CW Michalski, Helmut Friess, J Kleeff. Dept. of Surgery, Technische Universität München, Munich, Germany. P2-17

A Novel Role for EP4 receptor in Regulating Pancreatic Stellate Cells Function. C Charo, V Ramachandran, V Holla, P Yang, RN Dubois, RF Hwang, CD Logsdon. Depts. of Cancer Biology, and Surgical Oncology, UT MD Anderson Cancer Center, Houston, TX. P2-18

The vacuolar-ATPase confers invasive properties to human pancreatic cancer by modulating MMPs. C. Chung, C. Mader, P. Protiva, J. Schmitz, A. Koleske, S. Crawford, F. Gorelick. Section of Digestive Diseases, Departments of Medicine and Surgery, VA CT Healthcare System, Yale University School of Medicine; Department of Pathology, Northshore Research Institute, University of Chicago Medical School P2-19

Effect of Underlying Disease Type on Efficacy of CREON® in a Randomized Trial of Patients With Exocrine Pancreatic Insufficiency Due to Chronic Pancreatitis or Pancreatic Surgery. D. C. Whitcomb, E. Malecka-Panas, N. Gubergrits, S. Caras, Y. Shen, S. Sander-Struckmeier. University of Pittsburgh, Pittsburgh, PA; Medical University of Lodz, Lodz, Poland; Donetsk National Medical University, Donetsk, Ukraine; Abbott, Marietta, GA; Abbott, Hannover, Germany

P2-20

Apoptosis, Pancreatitis and Death of Pancreatic Cells due to Exenatide. D Bulchandani, J Nachnani, B. Herndon, A. Molteni, L. Alba. Department of Endocrinology, University of Kansas School of Medicine, Kansas City, KS; Division of Gastroenterology and Hepatology, & Research Lab M3-202, University of Missouri/Kansas City-School of Medicine, Kansas City, MO. P2-21

Glia Maturation Factor is Expressed in the Mouse Pancreas and Lung. D. Kempuraj, Z. Yuan, I. Samuel. Surgery, VAMC and the University of Iowa Carver College of Medicine, Iowa City, IA.

P2-22

PDX-1, A Potential Oncogene to Promote Cell Transformation and Tumorigenesis in Human Cell Lines. S Liu, G Zhou, M-C Gingras, S Patel, R Gibbs, R Catania, W Fisher, FC Brunicardi, ME DeBakey. Department of Surgery; Human Genome Sequencing Center, Baylor College of Medicine.

Isoflavone Enhanced the Efficacy of Gemcitabine in vivo in Pancreatic Cancer. Z Wang, A. Aboukameel, S Banerjee, AS Asfar, R Mohammad, FH Sarkar. Department of Pathology; Department of Internal Medicine, Karmanos Cancer Institute, Wayne State University, School of Medicine, Detroit, MI.

P2-24

Anti-inflammatory Activity of Apelin in Acute Pancreatitis. S. Han, E.W. Englander, C. Rastellini, T.C. Ko, M.R. Hellmich, C. Chao, J.F. Aronson, T. Quertermous, R. Kundu, G.H. Greeley, Jr. Dept. of Surgery, Pathology, Univ. of Texas Medical Branch, Galveston, TX; Dept. of Surgery, The Univ. of Texas Medical School at Houston, Houston, TX; Dept. of Medicine-Cardiovascular Medicine, Stanford Univ. School of Medicine, Stanford, CA. P2-25

D52 Regulates Vamp8-Positive Zymogen Granule Formation to Enhance Acinar Secretion. S.W. Messenger, D.D.H. Thomas, G.E. Groblewski. Department of Nutritional Sciences, University of Wisconsin, Madison, WI. P2-26

Immunochemotherapy with 5-Fluorouracil and Interferon-α Enhances Innate and Adoptive Immune Responses against Pancreatic Cancer. H. Khallouf, S. Serba, A. Märten, D. Jäger, J. Schmidt. University Hospital Heidelberg, National Center for Tumor Diseases, Heidelberg, Germany P2-27

Extended Pancreaticoduodenectomy with Vascular Resection and Reconstruction for Pancreatic Cancer. H. Z. Wang, G. Chen, L.D. Zhang, J. Ding, T. b. Xu, L. Cai, P. Bie. Institute of Hepatopancreatobiliary Surgery, Southwest Hospital, Third Military Medical University Chongqing, P. R. China. P2-28

Differences in Migration Between PDAC Stem Cells and Non-Stem Cells. J. Park, D. Irimia, M. Toner, A. Liss, C. Fernández-del Castillo, A.L. Warshaw, S.P. Thayer. Dept. of Surgery, MGH & HMS, Boston, MA. P2-29

Nutritional Assessment of Autoimmune Pancreatitis as Studied By Multifrequency Bio-Electric Impedance Analysis. J. Sakagami, H. Yasuda, Y. Sogame, N. Suzuki, H Hasegawa, K. Kataoka, T. Yoshikawa. Division of Gastroenterology and Hepatology, Kyoto Prefectural University of Medicine, Kyoto, Japan.

P2-30

Impact of S-1 for Patients with Pancreatic Cancer Relapse. K. Ishido, Y. Toyoki, D. Kudo, A. Kimura, T. Miura, S. Tsutsumi, H. Ogasawara, S. Narumi, K. Hakamada. Department of Gastrointestinal Surgery, Hirosaki University Graduate School of Medicine, Hirosaki, Japan. P2-31

Late Onset Pancreatic Necrosis in Acute Pancreatitis. K. Altaf, T. Odetoyinbo, N. Kibriya, R. Thomson, L. Moulton, C.Garvey, J.Evans, J. P. Neoptolemos, R. Sutton. Liverpool NIHR Pancreas Biomedical Research Uni; Department of Surgery and Oncology; Department of Radiology, Royal Liverpool University Hospital, Liverpool, UK.

Pancreas Divisum: A differentiated surgical approach as suitable treatment for symptomatic Patients. L.Schneider, E.Müller, T.Hackert, U.Hinz, O.Strobel, W.Hartwig, S.Fritz, S.Kreimeyer, L. Grenacher, M.W. Büchler, J. Werner. Department of General Surgery and Department of Diagnostic and Interventional Radiology, University of Heidelberg, Germany P2-33

Lung Damage Induced by Albumin Administration in Acute Pancreatitis is Reversed by Nitric Oxide Synthase Inhibiton. E Abdo, A. Coelho, S. Sampietre, N. Molan, J.E. Cunha, L. D'Albuquerque, M. Machado. University of S. Paulo/Brazil.

P2-34

S100A10 Increases Pancreatic Cancer Cell Resistance to Gemcitabine Treatment by the Inhibition of VMP1-Mediated Autophagy. R. Pardo, D. Grasso, M.I. Molejon, J.L. Iovanna, M.I. Vaccaro. Pathophysiology, School of Pharmacy and Biochemistry, University of Buenos Aires, Argentina. P2-35

Secretin Is Not Required For Pancreatic Growth Induced By Feeding Protease Inhibitor. ME Sabbatini, M Dolors Sans, I Nishijima, JA Williams. Department of Molecular and Integrative Physiology, University of Michigan, Nationwide Children's Hospital, Columbus Ohio P2-36

Collagen Promotes Snail-driven Invasion Through Increased TGF-β Signaling in Human Pancreatic Cancer Cells. M. A. Shields, S. Dangi-Garimella, S. Krantz, D. J. Bentrem,H. G. Munshi. Division of Hematology/ Oncology, Department of Medicine, and Division of Surgical Oncology, Department of Surgery, Feinberg School of Medicine, Northwestern University; The Jesse Brown VA Medical Center; and The Robert H. Lurie Comprehensive Cancer Center of Northwestern University, Chicago, IL. P2-37

An Active AKT is Required for KRAS Modulation of GLI1 Activity in Pancreatic Cancer Cells. L.L. Almada, S.F. Elsawa, G.L. Lund, M.E. Fernandez-Zapico. Schulze Center for Novel Therapeutics, Mayo Clinic, Rochester, MN.

P2-38

Classification of the Severity of Acute Pancreatitis: An Argument for a 'Critical' Category. M.S. Petrov, S. Shanbhag, M. Chakraborty, A. R. Phillips, J.A. Windsor. Department of Surgery, The University of Auckland, Auckland, New Zealand.

P2-39

Bacterial Translocation in Experimental Acute Necrotizing Pancreatitis: Effects of Infliximab. S. Aydin, A.T. Isik, B. Unal, B. Comert, M. Ozyurt, S. Deveci, G. Erdem, M. T. Unal, G. Ozgur, O. Cengiz, I. Tasci, M. R. Mas. Department of Surgery, Guven Hospital, A. Ayranci, Ankara, Turkey, Department of Internal Medicine, Gulhane School of Medicine, Ankara, Turkey, Department of Surgery, University of Inonu, Malatya, Turkey, Department of Microbiology, Gulhane School of Medicine, Istanbul, Turkey, Department of Pathology, Gulhane School of Medicine, Ankara, Turkey, Department of Surgery, Numune Training Hospital, Sihhiye, Ankara. Friday, 11/5

Prognostic Molecular Imaging in Pancreatic Cancer through Analysis of the Stromal Activity. M Erkan, AA Fingerle, C Reiser-Erkan, J. Gaa, H Friess, J Kleeff. Departments of General Surgery and Radiology, Technische Universität München, Munich, Germany. P2-41

Identification of Post-Translational Modified (PTMs) Proteins in Secretin Stimulated Endoscopic Pancreas Function Test (ePFT) Collected Pancreas Fluid. V. Kadiyala, J. Paulo, P. A. Banks, H. Steen, D.L. Conwell. Center for Pancreatic Disease, Division of Gastroenterology, Endoscopy and Hepatology, Brigham and Women's Hospital, Boston MA; Proteomics Core Lab, Children's Hospital Boston, Boston, MA; Harvard Medical School, Boston, MA

P2-42

Eicosapentaenoic Acid Induces Apoptosis in Pancreatic Cancer Cells. M.C. Chen, H. Takahashi, J.L. Park, H. Pham, H.A. Reber, O. J. Hines, V.L.W. Go, G. Eibl. Department of Surgery, UCLA Center of Excellence in Pancreatic Diseases, David Geffen School of Medicine at UCLA, Los Angeles, California.

P2-43

Mucin Expression in Pancreatic Cancer and its Correlation with Aggressiveness and Cell Survival. N. Mujumdar, V. Sangwan, S. M. Vickers, A. K. Saluja. Division of Basic and Translational Research, Department of Surgery, University of Minnesota, Minneapolis, MN. P2-44

The Effects of Preoperative Epidural Catheter (PEC) Placement on Outcomes in Patients Undergoing Pancreatectomy. N. Shah, K. Rosborough, B. Bonaventura, J. Zhang, M. Bloomston, C. Schmidt, W.S. Melvin, E.C. Ellison, P. Muscarella. Division of Gastrointestinal Surgery & Center for Minimally Invasive Surgery, Department of Surgery; Department of Anesthesia; Center for Biostatistics, Ohio State University Medical Center, Columbus, OH

P2-45

Combined Inhibition of Src and EGFR Abrogates Tumor-Stromal Interaction and Angiogenesis in Pancreatic Cancer in vivo. N.S. Nagaraj, F. Revetta, M.K. Washington, N.B. Merchant. Departments of Surgery and Pathology, Vanderbilt-Ingram Cancer Center, Vanderbilt University Medical Center, Nashville, TN.

P2-46

Insulin Protects Against Oxidant-Induced Impairment of Ca2+ Signalling and Plasma Membrane Ca2+-ATPase (PMCA) Inhibition in Pancreatic Acinar Cells. P. Mankad, T. Leggett, A. James and J. Bruce, Faculty of Life Sciences, University of Manchester, Manchester, UK.

Patient Reported Outcomes after Pancreaticoduodenectomy for Dsifferent Diseases: A Follow-up Study. R. Pezzilli, M. Falconi, A. Zerbi, R. Casadei, L. Valli, R. Varale, G. Armatura, C. Felicani, C. Ricci, A.M. Morselli-Labate. Departments of Digestive Diseases and Internal Medicine and Surgery, S. Orsola-Malpighi Hospital, Bologna; Department of Surgery, GB Rossi Hospital, Verona; Department of Surgery, S. Raffaele Hospital, Milan; Department of Surgery, Scientific Institute Humanitas, Rozzano-Milan. Italy. P2-48

A Novel Model of Acute Alcoholic Pancreatitis by Concomitant Administration of Ethanol and Fatty Acid. W. Huang, R. Mukherjee, V. Elliott, D.M. Booth, A. Tepikin, D.N. Criddle, R. Sutton. Division of Surgery and Oncology and NIHR Pancreas Biomedical Research Unit, Royal Liverpool University Hospital, Liverpool, UK; Physiological Laboratory, University of Liverpool, Liverpool, UK.

P2-49

R1 Rate and Lymph Node Status in Pancreatic Cancer is Determined by Intratumoral Factors. R. Segersvärd, A. Leifler, S. Ghazi, F. Jonsson, M. Nilsson, J. Permert. Dept. of Surgical Gastroenterology, CLINTEC Karolinska Institutet at Karolinska University Hospital Stockholm, Sweden P2-50

Interplay between Oncogenic Mutations and Inflammatory Stress in Pancreatic Ductal Adenocarcinoma. R. Soydaner-Azeloglu and D. Bar-Sagi. Department of Biochemistry, New York University School of Medicine, New York, NY.

P2-51

Chymotrypsin C is Required for the Full Activation of Human Procarboxypeptidases A1 and A2 . R. Szmola, M. Bence, A. Carpentieri, J. Samuelson, C.E. Costello, M. Sahin-Tóth. Department of Molecular and Cell Biology, Boston University Goldman School of Dental Medicine, Boston, MA; Mass Spectrometry Resource, Department of Biochemistry, Boston University School of Medicine, Boston, MA; 2nd Department of Medicine, Semmelweis University, Budapest, Hungary.

P2-52

Minnelide: Single Chemotherapeutic Agent Against Pancreatic Cancer. R. Chugh, V. Sangwan, D. Borja-Cacho, V. Dudeja, S.M. Vickers, A.K. Saluja. Dept of Surgery, University of Minnesota, Minneapolis, MN. P2-53

Endoscopic ultrasound during acute pancreatitis. V Kotwal, R Talukdar, MJ Levy, SS Vege. Miles and Shirley Fiterman Center for Digestive Diseases, Mayo Clinic College of Medicine, Rochester, MN. P2-54

A Selective COX-2 Inhibitor Inhibits CXC Chemokine Production in Human Pancreatic Cancer Cells. M. Satake, N. Kuroda, N. Uyama, T. Hirano, T. Okada, G. Eibl, V.L. Go, O.J. Hines, H. Reber, J. Fujimoto. Departments of Surgery, Hyogo College of Medicine: Nishinomiya, Hyogo, Japan; David Geffen School of Medicine at U.C.L.A, Los Angeles, CA.

Epithelial to Mesenchymal Transition is Involved in the Radioresistance of Pancreatic Cancer Cells. S. Kozono, K. Ohuchida, T. Ohtsuka, K. Mizumoto, M. Tanaka. Department of Surgery and Oncology, Graduate School of Medical Sciences, Kyushu University, Fukuoka, Japan. P2-56

The Role of Serum CA 19-9 and CEA in Distinguishing between Benign and Invasive Intraductal Papillary Mucinous Neoplasm of the Pancreas. S. Fritz, T. Hackert, U. Hinz, W. Hartwig, M.W. Büchler, J. Werner. Department of General and Visceral Surgery, University of Heidelberg, Heidelberg, Germany.

#### P2-57

Splenic Artery Infiltration in Pancreatic Adenocarcinoma of the Body and Tail: is Surgical Resection Worthwhile? S. Crippa, S. Partelli, G. Barugola, D. Tamburrino, P. Capelli, C. Bassi, P. Pederzoli, M. Falconi. Department of Surgery, University of Verona, Italy. P2-58

Evaluation of Sparse Stool Collections Compared with 72-Hour Collections as an Efficacy Measure of Pancreatic Enzyme Replacement Therapy in Patients with Exocrine Pancreatic Insufficiency. S. Caras, D. Boyd, L. Zipfel, S. Sander-Struckmeier. Abbott, Marietta, GA, USA; Abbott, Hannover, Germany.

P2-59

AGR2 Regulates the Invasion of Pancreatic Cancer Cells through Cathepsins B and D. L. Dumartin, H.J. Whiteman, M.E. Weeks, J.F. Timms, T.A. Brentnall, M.P. Bronner, C. Brennan, N.R. Lemoine, T. Crnogorac-Jurcevic. Queen Mary University of London, Barts and The London School of Medicine and Dentistry, Centre for Molecular Oncology, Institute of Cancer, London, UK; Cancer Proteomics Laboratory, EGA Institute for Women's Health, University College London, Gower Street, London, UK; 3Division of Gastroenterology, Department of Medicine, University of Washington, Seattle, USA; Department of Anatomic Pathology, Cleveland Clinic, Cleveland, USA; Queen Mary University of London, School of Biological and Chemical Sciences, London, UK.

P2-60

Friday, 11/5

Biomarkers for the Diagnosis of Autoimmune Pancreatitis and in Distinguishing it from Pancreatic Cancer. K. Felix, O. Hauck, F. Fakelman, M. Schnölzer, T. Kempf, M.W. Büchler, J. Werner. Department of General Surgery, University of Heidelberg, Heidelberg Germany (D); Protein Analysis Facility, German Cancer Research Center, Heidelberg, German. P2-61

The Association of Blood Urea Nitrogen, Creatinine and Hematocrit with In-patient Mortality in Acute Pancreatitis. MJ Bartel, JT Kurtzman, MG Warndorf, M Cox, S Robinson, PR Burchard, SR Gordon, TB Gardner. Section of Gastroenterology and Hepatology, Dartmouth-Hitchcock Medical Center, Lebanon, NH.

Infected Necrosis Increases Severity of Experimental Necrotizing Pancreatitis in Mice. P.J. Poxleitner, S.C. Richter, U.T. Hopt, U.A. Wittel. Department of General- and Visceral Surgery, Universitätsklinik Freiburg, Freiburg, Germany.

P2-63

Increased Intrapancreatic Fat is associated with Obesity and Severe Acute Pancreatitis. S. Navina, D. Yadav, K. T. Bae, A. Furlan, L. Nichols, C. Acharya, V. Singh. Departments of Pathology; Medicine; Radiology, University of Pittsburgh Medical Center, McKeesport and Pittsburgh, PA. P2-64

Preoperative determinants of the length of hospital stay in patients undergoing surgery for pancreatic cancer. VV Chandrabalan, DC McMillan, R Carter, J Kinsella, T Quasim, C Pow, J Edwards, J Al-Refaai, A McPhee, NB Jamieson, CJ McKay, CR Carter, EJ Dickson. West of Scotland Pancreatic Unit and University of Glasgow, Royal Infirmary, Glasgow, UK. P2-65

Upregulated micro-RNA 21 Targets PDCD4 and Inhibits Proliferation in Pancreatic Cancer. I Bhatti, V Lee, A Lee, JN Lund, RI Hall, C Tufarelli, D Lobo, M Larvin. University of Nottingham Medical School, Royal Derby Hospital, Derby, UK.

P2-66

Protective Effect of Chai-Qin-Cheng-Qi Decoction On Acute Necrotising Pancreatitis Induced By L-Arginine In Mice. P. Xue, T. Jing, L. Wen, ZY Cheng, L. Huang, W. Huang, X.N. Yang, Q. Xia. Department of Integrated Traditional Chinese and Western Medicine, West China Hospital, Sichuan University, China; Departments of Surgery and Physiology, Royal Liverpool Hospital, University of Liverpool, UK.

P2-67

Excellent Survival of Low-risk Patients with Resected Pancreatic Adenocarcinoma. W. Hartwig, T. Hackert, A. Gluth, U. Hinz, F. Bergmann, M.W. Büchler, J. Werner. Department of General Surgery and Department of Pathology, University of Heidelberg, Germany P2-68

EUS-Guided Injection of Irinotecan into the Pancreas. S. Cizginer, C. Karaca, AR Kambadakone, M Mino-Kenudson, CE Macfarlane, WR Brugge. Departments of Gastroenterology, Surgery, Radiology, Pathology, Massachusetts General Hospital, Boston, MA, USA, Biocompatibles UK Ltd, Farnham, Surrey, United Kingdom.

P2-69

Characterization of Nestin-positive Blood Vessels in Human Pancreatic Cancer. K Yamahatsu, Y Matsuda, T Ishiwata, T Yamamoto, T Fujii, T Aimoto, Y Nakamura, M Hiroi, E Uchida, Z Naito. Department of Pathology, Integrative Oncological Pathology, Nippon Medical School, Tokyo, Japan; Surgery for Organ and Biological Regulation, Graduate School of Medicine, Nippon Medical School, Tokyo, Japan.

Does Stopping Drinking Alcohol Even After the Onset of Overt Exocrine and Endocrine Pancreatic Insufficiency Improve the Prognosis of Patients with Alcohol-Induced Chronic Pancreatitis? Y. Tando, M. Yanagimachi, Y. Matsuhashi, H. Tanaka, E. Sato, A. Matsumoto, S. Chikazawa, A. Kon, T. Suda, T. Nakamura. Department of Internal Medicine III and Health Science, Hirosaki University School of Medicine. P2-71

Comparison of Fecal Elastase-1 and Pancreatic Function Testing in Children. PD Wali, B Loveridge-Lenza, Z He, K Horvath. Division of Pediatric Gastroenterology and Nutrition, Department of Biomedical Research, Thomas Jefferson University Medical College, Philadelphia, PA and Alfred I duPont Hospital for Children, Wilmington, DE.

# SATURDAY, NOVEMBER 5 7:00 AM - 3:00 PM POSTER SESSION 3

KRUMLOVSKY ATRIUM

Posters P3:1-6 Posters of Distinction

#### P3-1

Predictive Factors for Lymph Node Metastasis in Intraductal Papillary Mucinous Neoplasms of the Pancreas with Mural Nodules. T. Ohtsuka, Y. Sa dakari, K. Kobayashi, S. Takahata, M. Nakamura, K. Mizumoto, M. Tanaka Department of Surgery and Oncology, Graduate School of Medical Sciences, Kyushu University, Fukuoka, Japan.

P3-2

HP1 Binds to KLF11 to Regulate CXCR4, a Key Mediator of Metastasis and Angiogenesis in Pancreatic Cancer. G Lomberk, A Mathison, M Fernandez-Zapico, C Demars, N Buttar, and R Urrutia. Division of Gastroenterology, Mayo Clinic, Rochester, MN.

P3-3

The Addition of Erlotinib to Gemcitabine and Cisplatin Does Not Appear To Improve Median Survival In Metastatic Pancreatic Cancer. P. Carlson, D Fogelman, B. Kelley, W. Qiao, M. Javle, M. Overman, G. Varadhachary R. Wolff, J. Abbruzzese. Baylor College of Medicine, Houston, TX; Department of Gastrointestinal Medical Oncology, M.D. Anderson Cancer Center, Houston, TX

The Angiotensin-I-Converting Enzyme Inhibitor Enalapril and Aspirin Delay Progression of Pancreatic Intraepithelial Neoplasia and Cancer Formation in a Genetically Engineered Mouse Model of Pancreatic Cancer. V. Fendrich, NM Chen, M. Neef, J. Waldmann, M. Buchholz, G. Feldmann, E. Slater, A. Maitra, D. Bartsch. Department of Surgery, Department of Gastroenterology and Endocrinology, Philipps-University Marburg, Germany; Department of Pathology, The Sol Goldman Pancreatic Cancer Research Center, Johns Hopkins University School of Medicine, Baltimore, Maryland, USA

P3-5

Gene Expression Profiling Reveals Long Intronic Non-Coding RNAs Differentially Expressed in Pancreatic Cancer and Metastasis. A.C. Tahira, M.S. Kubrusly, M.F. Faria, S. Verjovski-Almeida, E.M. Reis, M.C.C. Machado. Department of Biochemistry, Instituto de Química, Department of Gastroenterology, School of Medicine (LIM-37), University of Sao Paulo, Sao Paulo, SP, Brazil.

P3-6

Adjuvant Radiotherapy after Pancreatic Cancer Resection in the Elderly: Is it Time to Reconsider Our Treatment Strategies? V. Dudeja, E.B. Habermann, A. Abraham, W. Zhong, S.M.Vickers, M.C. Posner, P.W.T. Pisters, W.B. Al-Refaie. Univ. of Minnesota and Minneapolis VAMC, Univ. of Chicago, Chicago, IL, Univ. of Texas, MD Anderson Cancer Center.

#### P3-7

Mist1-/- mice have increased sensitivity to an alcohol laced diet. S.Alahari, C.Pin, Department of Physiology and Pharmacology and Pediatrics, University of Western Ontario, Children's Health Research Institute, London, Canada.

P3-8

A Randomized, Double-Blind, Dose-Response Control, Crossover Study of 2 Doses of EUR-1008 (ZENPEP) in Chronic Pancreatitis Patients With Exocrine Pancreatic Insufficiency. P. Toskes, A. Secci, D. Broussard, R. Thieroff-Ekerdt. University of Florida College of Medicine, Gainesville, FL; Eurand Pharmaceuticals, Inc., Yardley, PA.

P3-9 Predicting Post-ERCP Pancreatitis (PEP) Before and After ERCP Using Accepted and Novel Risk Factors. DD Ballard, SD Saini, J Spaete, EJ Wamsteker, MJ DiMagno. Dept of Medicine, GI Div, U of MI, Ann Arbor. P3-10

BMP2 Stimulates Inflammatory Responses in Pancreatic Acinar Cells. Y Cao, M Tyler, W Yang, C Chao, MR Hellmich, TC Ko. Department of Surgery, UTHSC-Houston; UTMB, Galveston, TX.

Analysis of ICOS and IL-10 Positive Regulatory T cells in Patients with Autoimmune Pancreatitis. K Uchida, T Kusuda, T Ikeura, Y Sakaguchi, K Yoshida, T Fukui, M Shimatani, M Matsushita, M Takaoka, A Nishio, K Okazaki. Department of Gastroenterology and Hepatology, Kansai Medical University, Moriguchi, Japan.

P3-12

High S100A2 Calcium-Binding Protein Expression Defines a Metastatic Phenotype in Pancreatic Cancer. C.J. Scarlett, D.K. Chang, E.S. Stoddart, E.K. Colvin, A. Mawson, M.D. Jones, P.E. Tobelmann, M. Pajic, R.J. Daly, A.V. Biankin. Cancer Research Program, Garvan Institute of Medical Research, Darlinghurst, NSW, Australia.

P3-13

Pathologic Protease Activity is Reduced in Calcineurin-A beta Knockout Mice. I. Orabi, M.U. Ahmad, A. U. Shah, Z. M. Mannan, S. Z. Husain. Department of Pediatrics, Yale University School of Medicine, New Haven, CT.

P3-14

Manganese-Enhanced fMRI of Rodent Pancreas. A. Dhyani, P. Vargas, L. Leoni, Q. Luo, M. Haque, X. Fan, P. La Riviere, B.B. Roman. Department of Radiology, University of Chicago, Chicago IL. P3-15

Laparoscopic vs. Open Distal Pancreatectomy: A Case Control Comparison. M Howard, T Bradish, J O'Connell, RM Charnley, SA White, JJ French. Department of HPB Surgery, Freeman Hospital, Newcastle, UK. P3-16

Membranous Claudin-10 Expression Is a Novel Positive Prognostic Factor in Pancreatic Cancer. C Reiser-Erkan, M Tardio, M Erkan, W Wang, T Samkharadze, H Friess, J Kleeff. Chirurgische Klinik und Poliklinik Klinikum rechts der Isar Technische Universität München, München P3-17

Early Surgery for Necrotizing Pancreatitis: Primary Necrosectomy is not Necessary. Y.P. Abdullaev, S.I.Galeev, M.A.Rubtsov. Department of Surgery, Saint-Petersburg State Medical Academy n.a. Mechnicov, Russi; Department of Surgery, Clinical Hospital of St. Luke, Saint-Petersburg, Russia.

P3-18

Germline Mutations of Centrobin Gene Likely Predispose Patients to Pancreatic Cancer. W.S. Rubinstein, C. Zou, R.H. Koneru, K. Vogel, V. Wang, K. Kaul, R.E. Brand, Q. Gao. Department of Medicine, Pathology, North-Shore University HealthSystem, MBP Program, Northwestern University, Evanston, IL; Division of Gastroenterology, Hepatology and Nutrition, University of Pittsburgh Medical Center, Hillman Cancer Center, Pittsburgh, PA.

50

Enhanced Sensitivity of Pancreatic Detection by Measuring the CA 19-9 Antigen on Selected Protein Carriers. T.Yue, L. Li, M.A. Anderson, D.E. Brenner, D.M. Simeone, Z. Feng, R.E. Brand, B.B. Haab. Laboratory of Cancer Immunodiagnostics, Van Andel Institute, Grand Rapids, MI; Fred Hutchinson Cancer Research Center, Seattle, WA; University of Michigan Medical Center, Ann Arbor, MI; University of Pittsburgh Medical Center, Pittsburgh, PA; Cell and Molecular Biology Program, Michigan State University, East Lansing, MI.

P3-20

Diabetes is Associated to Malignant Pancreatic Tumors and Serves as Prognostic Factor for Ductal Adenocarcinoma. R. Hennig, A. Kis, U. Hinz, J. Kleeff, J. Schmidt, H. Friess, M.W. Büchler. Department of Surgery, University of Heidelberg, Germany; Department of Surgery, Klinikum rechts der Isar, TUM, Munich, Germany.

P3-21

TNF- $\alpha$ -induced NF- $\kappa$ B Activation in AR42J Cells Requires both Serine and Tyrosine Phosphorylation of I $\kappa$ B $\alpha$ . E. Twait, D. Williard, I. Samuel. VAMC & UI CCOM, Iowa City, IA.

P3-22

Xbp1 Ablation in the Adult Murine Pancreas has Long-Term Effects on Pancreatic Morphology. D.A. Hess, S. Humphrey, A-H. Lee, L. Glimcher, S.F. Konieczny. Department of Biological Sciences and Purdue Center for Cancer Research, Purdue University, West Lafayette, IN; Department of Immunology and Infectious Disease, Harvard University, Boston, MA P3-23

A Modified 13C-Mixed Triglyceride Breath Test Detects Moderate Pancreatic Exocrine Insufficiency. J. Keller, P. Layer. Dept. Internal Medicine, Israelitic Hospital, Hamburg, Germany.

P3-24

Evaluation of Cerulein (CR)-Induced Acute Pancreatitis in Mice with Micro-Computed Tomography Imaging. S.O. Kim, C. Chao, C. Rastellini, J. Wei, I. Patrikeev, M. Motamedi, J. Aronson, G Greeley, T.C. Ko, Y. Cao, M. Falzon, B.M. Evers, H Saito, M.R. Hellmich. Department of Surgery; Center for Biomedical Engineering; The Animal Models of Pancreatic Disease Core; Department of Pathology; Department of Pharmacology and Toxicology, University of Texas, Galveston, TX; University of Texas Health Science Center at Houston, Houston, TX; Department of Surgery, University of Kentucky, Lexington, KY.

P3-25

Pancreatic Acinar Cells Express the Calcium Sensing Proteins for Secretion, Synaptotagmin-1, -3, -6 and -7. MA Falkowski, DDH Thomas and GE Groblewski. Department of Nutritional Sciences, University of Wisconsin, Madison, WI.

P3-26

Apigenin Induces Pancreatic Cancer Apoptosis Via p53 and PUMA. JC King, Q-Y Lu, L Zhang, G Li, A Moro, HA Reber, VLW Go, G Eibl, OJ Hines. UCLA Center for Excellence in Pancreatic Diseases, Los Angeles, CA.

Beta III- and Beta IVB-Tubulin Mediate Sensitivity to Chemotherapeutic Drugs in Pancreatic Cancer Cells. J Liu,\* J McCarroll,\* M.V. Apte, J Youkhana, M Kavallaris, P.A. Phillips. \*These authors contributed equally to the study. Pancreatic Research Group, University of New South Wales, Sydney, Australia; Children's Cancer Institute Australia, Lowy Cancer Research Centre, University of New South Wales, Sydney, Australia P3-28

Race Does Not Substantially Affect Outcomes in Patients With Pancreatic Cancer. N.P. Valsangkar, D.M. Bush, J.S.Michaelson, C. Fernandez-del Castillo, A.L. Warshaw, S.P. Thayer. Department of Surgery; Laboratory for Quantitative Medicine, Mass General Hospital, Boston, MA. P3-29

Multifocal Ipmns: Pathology and Field Defect. H. Matthaei, A. Norris-Kirby, K. Olino, C.L. Wolfgang, R.D. Schulick, J.L. Cameron, K.D. Jackson, M. dal Molin, P. Capelli, G. Zamboni, L. Bortesi, T. Furukawa, A.C. Tsiatis, S.M. Hong, M. Goggins, J.R. Eshleman, R.H. Hruban, A. Maitra. The Sol Goldman Pancreatic Cancer Research Center, The Johns Hopkins University, Baltimore, USA; Department of Pathology, University of Verona, Verona, Italy, Sacro Cuore Hospital, Negrar, Verona, Italy, International Research and Educational Institute for Integrated Medical Sciences, Tokyo Women's Medical University, Tokyo, Japan.

P3-30

L1 Cell Adhesion Molecule (L1CAM) Expression at the Cancer Invasive Front is a Novel Prognostic Marker of Pancreatic Ductal Adenocarcinoma. S. Tsutsumi, S. Morohashi, Y. Kudo, H. Akasaka,H. Ogasawara, M. Ono, K. Takasugi, K. Ishido, K. Hakamada, H. Kijima. Departments of Pathology and Surgery, Hirosaki University School of Medicine, Aomori, Japan. P3-31

Is the Prognosis Better After Resection for Invasive IPMN than for Pancreatic Cancer? T. Moriya, L.W. Traverso. Department of General Surgery, Virginia Mason Medical Center, Seattle, WA. P3-32

Cancer/Testis Antigens and the Activation of the Gametogenic Expression Program in Pancreatic Cancer. A. Heller, T. Giese, S. Gnjatic, K. Giorgadze, A. Berger, I. Zörnig, D. Jäger, F. Bergmann, M.W. Büchler, J. Schmidt, J. Werner, N.A. Giese. Department of Surgery, Institute of Immunology, Department of Medical Oncology/NCT and Institute of Pathology, University Hospital Heidelberg, Germany; Ludwig Institute for Cancer Research Ltd, Memorial-Sloan Kettering Cancer Center, New York, NY. P3-33

The Characteristics of Organ Injury in the Early Stage of Severe Acute Pancreatitis. N. Cui, E. Zhao, D. Zhang, S. Zhang, N. Xu. Tianjin Nankai Hospital, Tianjin China.

P3-34

Serous cystadenoma of the pancreas showing enlargement on imagins: Report of a case. M. Nakamoto, N. Minagawa, A. Wada, A. Higure, K.Yamaguchi. Department of Surgery, School of Medicine, University of Occupational and Environmental Health, Japan.

Evaluating absence of Rcan1, a feedback inhibitor of CN-NFAT, in hormone-driven, adaptive pancreatic growth. GT Gurda, SJ Crozier, JA Williams. University of Michigan School of Medicine, Ann Arbor, MI. P3-36

Omega-3 fatty acid decreases proliferation of pancreatic precancerous lesions by attenuating AKT phosphorylation. M. Barron, Y. Ding, B. Mullapudi, K. Adrian, M. Tsao, P. Grippo. Department of Surgery, Northwestern University, Chicago, IL.

P3-37

LEDGF, a Novel Transcriptional Partner of the Oncogene GLI1 in Pancreatic Cancer. K.L. Bledsoe and M.E. Fernandez-Zapico. Schulze Center for Novel Therapeutics, Mayo Clinic, Rochester, MN

P3-38

Outcome of Laparoscopic Spleen Preserving Distal Pancreatectomy with Special Reference to the Lateral Approach. M. Nakamura, T. Ohtsuka, S. Takahata, S. Shimizu, M. Tanaka. Surgery and Oncology, Graduate School of Medical Sciences, Kyushu University, Fukuoka, Japan. P3-39

Integrin  $\alpha 6\beta 4$  Contributes to HGF-Stimulated Migration and Invasion by Promoting Autocrine EGFR Signaling. M. Chen, Z. Cruz-Monserrate, T. Knifley, K. L. O'Connor. Markey Cancer Center, University of Kentucky, Lexington; and Department of Cancer Biology, University of Texas, M.D. Anderson Cancer Center, Houston.

P3-40

Clinical Significance of Serum Alkaline Phosphatase Level in Advanced Pancreatic Cancer. I.Ohno, S.Mitsunaga, K.Nakachi, S.Shimizu, H.Takahashi, H.Okuyama, Y.Kojima, A.Ochiai, H.Ueno, C.Morizane, S.Kondo, T.Okusaka, M.Ikeda. Division of Hepatobiliary and Pancreatic Oncology, National Cancer Center Hospital East, Kashiwa, Japan; Department of Gastroenterology, National Center for Global Health and Medicine, Tokyo, Japan; Division of Hepatobiliary and Pancreatic Oncology, National Cancer Center Hospital, Tokyo, Japan. P3-41

Mass Spectrometry-based Proteomic Analysis of Formalin-Fixed Paraffin-Embedded (FFPE) Pancreatic Tissue. J. Paulo, P.A. Banks, H. Steen, D.L. Conwell. Center for Pancreatic Disease, Division of Gastroenterology, Hepatology and Endoscopy, Brigham and Women's Hospital, Harvard Medical School, Boston, MA; Proteomics Core Lab, Children's Hospital Boston, Boston, MA; Harvard Medical School, Boston, MA. P3-42

Sample Preparation of Secretin Stimulated Endoscopic (ePFT) Collected Pancreatic Fluid for Proteomic Analysis. J. Paulo, B. Wu, P.A. Banks, D.L. Conwell, H. Steen. Center for Pancreatic Disease, Division of Gastroenterology, Hepatology and Endoscopy, Brigham and Women's Hospital, Boston, MA; Proteomics Core Lab, Children's Hospital Boston, Boston, MA; Harvard Medical School, Boston, MA.

NIS-CRAD as a Novel Theranostic for Pancreatic Cancer. J. Davydova, M. Trujillo, S. McDonough, M. Oneal, E. Brown, J. Han, L. Armstrong, S. Vickers, J. Morris, M. Yamamoto. Department of Surgery, University of Minnesota, Minneapolis, MN; Division of Endocrinology, Mayo Clinic, Rochester, MN.

P3-44

The Effects of Ethanol, Bile Acids and TNF-α on Expression of Aquaporins in Human Pancreatic Duct Cells. P. Hegyi, Z. Rakonczay Jr., L. Kemény Jr., Á. Zvara, L. Puskás, V. Venglovecz. First Department of Medicine, University of Szeged; Laboratory of Functional Genomics, Biological Research Center, Department of Pharmacology and Pharmacotherapy, University of Szeged, Szeged, Hungary

P3-45

CPET (Cardiopulmonary Exercise Testing) for Assessment of Risk Prior to Pancreaticoduodenectomy. MA Junejo, AJ Sheen, D Atkinson, J Moore, P Foster, MJ Parker, AK Siriwardena. Regional Hepatobiliary Unit; Departments of Anaesthesia and Critical Care, Manchester Royal Infirmary, Manchester UK.

P3-46

Putative Pancreatic Cancer Stem Cell Marker DCAMKL-1: Role in EMT. S.M. Sureban, R. May, S.A. Lightfoot, J.H. Wyche, S. Anant, C.W. Houchen. Departments of Medicine and Pathology, University of Oklahoma Health Sciences Center, Oklahoma City, OK; Veterans Affairs Medical Center, Oklahoma City, OK; Howard University, Washington, DC. P3-47

Results of 546 Consecutive Pancreatic Operations at Helsinki University Hospital, Finland. H. Pelli, A. Juuti, H. Mustonen, S. Nordling, J. Sirén, C. Haglund, T. Kiviluoto. Department of Surgery, Department of Pathology, Helsinki University Central Hospital, Finland. P3-48

Alisporivir (Deb025) Prevents Necrosis in and Decreases the Severity of Experimental Pancreatitis. R Mukherjee, W Huang, AV Tepikin, A Gukovskaya, DN Criddle, R Sutton. Physiological Laboratory, University of Liverpool, NIHR Pancreas Biomedical Research Unit, Royal Liverpool University Hospital, Liverpool, UK; VA Greater Los Angeles Healthcare System and University of California Los Angeles, CA, USA.

P3-49

Risk of Recurrence after Biliary Pancreatitis with and without Preventive Measures. A Popowicz, E Wirén, G Sandblom, Å Andrén-Sandberg. Center of Gastroenterology, Karolinska University Hospital/Huddinge. P3-50

GIPC Modulates TGFβ Signaling in Human Pancreatic Stellate Cells by Altering Co-receptor Expression. A. Szabolcs, Y. Cao, R. Urrutia, S. Dutta, D. Mukhopadhyay. Department of Biochemistry and Molecular Biology, Mayo Clinic, Rochester, MN.

Down-regulation of McI-1 by Baicalein Induces Apoptosis through the Mitochondrial Pathway in Human Pancreatic Cancer Cells. H. Takahashi, M.C. Chen, D.M. Harris, H. Pham, H.A. Reber, O.J. Hines, V.L.W. Go, G. Eibl. Department of Surgery and Medicine, UCLA Center for Excellence in Pancreatic Diseases, David Geffen School of Medicine at UCLA, Los Angeles, California.

P3-52

A Novel Cancer-Targeting Adenovirus Expressing Interferon Alpha for Pancreatic Cancer Therapy. L. Armstrong, J. Davydova, E. Brown, J. Han, M. Yamamoto, S.M. Vickers. Department of Surgery, University of Minnesota, Minneapolis, MN.

P3-53

Surgical Impact of Remnant Pancreatic Volume and Body Composition on Pancreatic Anastomotic Failure after Pancreatoduodenectomy. Y.Kirihara, N.Takahashi, Y.Hashimoto, G.Sclabas, S.Khan, J.Sakagami, M.G.Sarr, M.B.Farnell. Division of Gastroenterologic and General Surgery; Department of Radiology; Division of Gastroenterology and Hepatology, Mayo Clinic, Rochester, MN.

P3-54

Nociceptor Cell Sprouting: Implication for Pancreatic Pain Perception. S Seo, GA Lomberk, AJ Mathison, N Buttar, S Brimijoin, A Windebank, R Urrutia. Mayo Graduate School, Division of Gastroenterology, Department of Pharmacology and Experimental Therapeutics, Department of Neuroscience, Mayo Clinic, College of Medicine, Rochester, MN. P3-55

Claudin-4 (CLDN4) is Associated with Neoplastic Progression of Intraductal Papillary Mucinous Neoplasms (IPMNs) of the Pancreas. K. Tsutsumi, N. Sato, H. Fujita, K. Ohuchida, T. Ohtsuka, S. Takahata, K. Mizumoto, M. Tanaka. Department of Surgery and Oncology, Graduate School of Medical Sciences, Kyushu University, Fukuoka, Japan. P3-56

Marine Sponge Extract for Targeted Elimination of Pancreatic Cancer Stem-like Cells. S. Schlesinger, G. Kallifatidis, A. Klöppel, F. Brümmer, I. Herr. Molecular OncoSurgery Group, Department of General Surgery, University of Heidelberg and German Cancer Research Center, Heidelberg, Germany, Translational Immunology Unit, German Cancer Research Center, Heidelberg, Germany, University of Stuttgart, Institute of Biology, Department of Zoology, Stuttgart, Germany. P3-57

Clinical and Morphological Aspects of Autoimmune Pancreatitis Associated with Ulcerative Colitis. L.Frulloni, A.Amodio, A.Katsotourchi, T.Viaro, R.Niensted, T.Tumelero, L.Benini, M.Pellicciari, I.Vantini. Department of Medicine, University of Verona, Italy.

Significant Weight Gain After Long-Term Treatment with CREON® in Patients with Exocrine Pancreatic Insufficiency due to Chronic Pancreatitis or Pancreatic Surgery, Despite Previous Oral Enzyme Therapy. D.C. Whitcomb, E. Malecka-Panas, G.A. Lehman, G. Vasileva, N. Gubergrits, S. Caras, Y. Shen, S. Sander-Struckmeier. University of Pittsburgh, Pittsburgh, PA; Medical University of Lodz, Lodz, Poland; Indiana University Medical Center, Indianapolis, IN; MHAT Rousse AD, Rousse, Bulgaria; Donetsk National Medical University, Donetsk, Ukraine; Abbott, Marietta, GA; Abbott, Hannover, Germany.

#### P3-59

Da-Cheng-Qi Decoction Reduces Intra-abdominal Hypertension and Acute Lung Injury in Experimental Acute Pancreatitis Model in Rats. M H Wan, J Ii, L Zhu, G Y Cheng, W F Tang, Q Xia. Department of Integrated Traditional Chinese and Western Medicine, West China Hospital, Sichuan University, China

P3-60

Extrapancreatic Malignancies in Pancreatic Cancer Patients – Epidemiological Observations and Possible Clinical Consequences. T. Hackert, C. Tjaden, U. Hinz, W. Hartwig, O. Strobel, M.W. Büchler, J. Werner. Department of Surgery, University of Heidelberg, Heidelberg, Germany. P3-61

Evaluation of the ISGPS Definition of Delayed Gastric Emptying after Pancreatoduodenectomy in a High-volume Centre. T. Welsch, M. Borm, L. Degrate, M. W. Büchler, M. N. Wente. Department of General, Visceral and Transplantation Surgery, University Hospital Heidelberg, Heidelberg, Germany.

P3-62

Generation of Polyclonal Human IgG Directed Against Pancreatic Ductal Adenocarcinoma Cell Lines from Peripheral Mononuclear Cells of Healthy Donors. E. Langenmair, G. Wolff-Vorbeck, U.T. Hopt, U.A. Wittel. Department of General- and Visceral Surgery, Universitätsklinik Freiburg, Freiburg, Germany

P3-63

Collagen-I Increases the Expression of Transgelin and Lumican (Regulators of Cell Migration) by Activated Pancreatic Stellate Cells. L. Yang\*, P.A. Phillips\*, Z. Xu, J. Youkhana, A. Vonlaufen, R. Pirola, J. Wilson, and M.V. Apte. \*Equal first authors. Pancreatic Research Group, University of New South Wales, Sydney, Australia.

P3-64

The Relationship between the Systemic Inflammatory Response, Patient Physiology and Anaerobic Threshold in Patients Undergoing Surgery for Pancreatic Cancer. V Chandrabalan, DC McMillan, R Carter, J Kinsella, T Quasim, C Pow, J Edwards, J Al-Refaai, NB Jamieson, CJ MacKay, RC Carter, EJ Dickson. West of Scotland Pancreatic Unit and University of Glasgow, Royal Infirmary, Glasgow, UK

Salmonella Typhi (ST) Infects Pancreatic Ductal Cells in vitro. B Farfán, ML Ramírez-Aguilar, M Pelaez-Luna, G Gutiérrez, C Alpuche-Aranda, G Robles-Díaz. Experimental Medicine Unit-School of Medicine, UNAM, Microbiology and Inmunology Department, School of Medicine, UNAM. México City, Mexico.

P3-66

Role of Non-Oxidative Ethanol Metabolism in Pancreatic Acinar Mitochondrial Dysfunction and Cell Death. D.M. Booth, W. Huang, A.V. Tepikin, B.S. Kaphalia, R. Sutton, D.N. Criddle. Physiological Laboratory, University of Liverpool, Liverpool, UK, Liverpool NIHR Pancreas Biomedical Research Unit, Royal Liverpool University Hospital, Liverpool, UK; Department of Pathology, The University of Texas Medical Branch, Galveston, TX, USA. P3-67

Superiority of a Revised R-definition to Predict Long-term Survival in Patients with Resected Pancreatic Adenocarcinoma. W. Hartwig, T. Hackert, A. Gluth, U. Hinz, F. Bergmann, M.W. Büchler, J. Werner. Department of General Surgery and Department of Pathology, University of Heidelberg, Germany.

P3-68

High-Fat Diet Hastens Mortality from Pancreatic Adenocarcinoma in Kras/ P53/Cre Mice. PB White, H Wu, M Yip-Schneider, CM Schmidt, KM Ziegler, HA Pitt, DA Swartz-Basile, NJ Zyromski. Department of Surgery, Indiana University School of Medicine, Indianapolis, IN. P3-69

A Metastatic Model of Pancreatic Cancer Using NOD/Shi-scid, IL-2Rynull(NOG) Mice. T. Fujii, Y. Matsuda, K. Yamahatsu, H. Akiyama, K. Teduka, T. Yamamoto, T. Ishiwata, E. Uchida, Z. Naito. Department of Pathology, Integrative Oncological Pathology, Nippon Medical School, Tokyo, Japan; Surgery for Organ and Biological Regulation, Graduate School of Medicine, Nippon Medical School, Tokyo, Japan. P3-70

Hedgehog Responding Cells in the Pancreatic Cancer Microenvironment. M.A. Collins, B. Skendrovich, S. Rakshit, M. Pasca di Magliano. Departments of Surgery and Cell and Developmental Biology University of Michigan, Ann Arbor, MI.

P3-71

Pancreatic Exocrine Dysfunction in a Subgroup of Children with Failure to Thrive. B. Loveridge-Lenza, Z. He, K. Horvath. Department of Pediatrics, Thomas Jefferson University, Philadelphia, PA; Division of Gastroenterology and Nutrition & Nemours Biomedical Research, Alfred I. duPont Hospital for Children, Wilmington, DE.

End of Program

57