

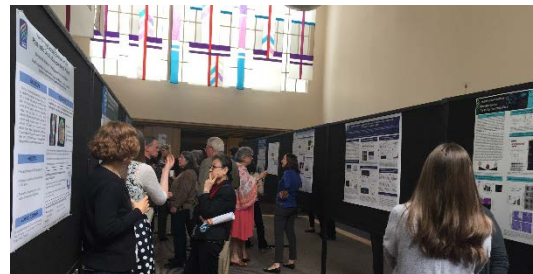


FROM THE DIRECTORS

Dear Brenden-Colson Center Researchers and Supporters,

Many of you are familiar with the longstanding and highly respected international **Gordon Research Conferences**. Recently GRC introduced a new bi-annual meeting on Pancreatic Diseases, an indication of the urgent need for better understanding of this organ. This meeting took place last month and focused on "Exocrine and Endocrine Pancreas: Molecules to Human." We were honored (Rosie) to be asked to serve as a session chair, and Brenden-Colson Program Leader Dan Marks was invited to speak. BCCPC researchers Jason Link, Mara Sherman, and Brittany Allen-Petersen also participated, as well as several members of our Executive Advisory Board. There was a lot of interest in Brenden-Colson's patient-derived models of PDAC and potential for some exciting new collaborations. Our involvement in such gatherings of the best minds working on pancreas is crucial to the BCCPC's goal to develop into a world-class center of excellence for pancreatic disease research and patient care.

Also to that end, we hosted our **External Advisory Board** in May for a day-long visit for them to hear about our progress and plans, and for us to benefit from their experience and advice. The meeting included a lively poster session where Brenden-Colson investigators presented their most recent work and got feedback from the EAB members. The BCCPC EAB is made up of pancreas research and care experts from throughout the U.S.: Tony Hollingsworth (U Nebraska); Elizabeth Jaffee (Johns Hopkins); Steven Leach (Sloan Kettering); Andrew Lowy (UC San Diego); Gloria Petersen (Mayo); Diane Simeone (NYU); and Betty Booher (OHSU patient advocate). These dedicated researchers and practitioners gave us not only their time but their earnest attention and thoughtful input, and we in turn are studying their report as we continue on our path of strategic growth and achievement.



We are very pleased to announce that **Dr. Emek Demir**, Assistant Professor of Molecular & Medical Genetics at OHSU, has agreed to be a Program Leader for the Brenden-Colson Center. Dr. Demir was recruited to OHSU by the BCCPC in collaboration with the Computational Biology Program in 2015. He will lead the Center's bioinformatics activities and is our liaison to the "big data" research groups on campus.

To all of you working in pancreas research, and foremost from our patients and their families, we **thank you**.

Sincerely,

Brenden-Colson Center Co-Directors
Rosalie Sears, PhD
Brett Sheppard, MD

To make a donation in support of the Brenden-Colson Center's programs, please use this link to visit the [OHSU Foundation](#) site. Thank you.

RESEARCH UPDATES

Analysis of K-Ras Interactions by Biotin Ligase Tagging

In a study from BCCPC researchers [Eric Barklis, PhD](#), [Xiaolin Nan, PhD](#) and [Phil Stork, MD](#), a significant number of K-Ras interaction partners, many of which have been identified previously as potential cancer biomarkers, were identified in pancreatic cancer cells using biotin ligase tagging. They conclude that this method offers a rapid and convenient approach to the characterization of K-Ras interaction networks. (Ritchie C, Mack A, Harper L, Alfadhli A, Stork PJS, Nan X, Barklis E., 2017, Cancer Genomics Proteomics. [Jul-Aug;14\(4\):225-239.](#))

“How can we use knowledge of RAS-regulated MYC posttranslational modifications to improve cancer therapeutics? An increased effort to understand MYC posttranslational regulation and to develop therapeutic strategies that target MYC activity through the enzymes that modify it could be an important direction for the RAS community.”

RAS and MYC: Co-conspirators in Cancer

[Rosalie Sears, PhD](#), and [Brittany Allen-Petersen, PhD](#), have been prominently featured on the NCI RAS Initiative blog, *Dialogue*, with an entry discussing how the transcription factor MYC is an important downstream target of mutated RAS genes in human cancers. They posit that inhibiting post-translational modifications of MYC to decrease its transcriptional activity is a new strategy for treating RAS-driven cancers. The NCI RAS Initiative was created in part to address the theory that up to 95% of pancreatic cancers are driven by mutations of the RAS family of genes. (<https://www.cancer.gov/research/key-initiatives/ras/ras-central/blog/2017/myc-ras>)

Establishment and characterization of a novel murine model of pancreatic cancer cachexia

[Daniel Marks, MD, PhD](#), has a paper in press showing that mice inoculated with syngeneic KPC allografts of PDAC tumor cells are a model ideally suited for studying cachexia. The mice developed a wide array of cachexia symptoms, including decreased food intake and activity as well as wasting syndrome. (Michaelis KA, Zhu X, Burfeind KG, Krasnow SM, Levasseur PR, Morgan TK and Marks DL. Journal of Cachexia, Sarcopenia and Muscle (2017); Published online in Wiley Online Library (wileyonlinelibrary.com) DOI: 10.1002/jcsm.12225)

COLLABORATION UPDATES

At this summer's **Pancreatic Diseases Gordon Research Conference** (June 18-23, 2017), [Rosalie Sears, PhD](#), was a co-chair of the “Novel mechanisms of cellular communication” session, and [Daniel Marks, MD, PhD](#), was an invited speaker, presenting on “Signaling pathways in PDAC-associated cachexia.” This conference, which “aims to link the understanding of the biology of the exocrine and endocrine pancreas to applications to human diseases, convening experts from all aspects of pancreas biology as well as clinicians working on translational approaches for various pancreatic diseases, including pancreatic cancer, pancreatitis and diabetes,” (from webpage [here](#)) aligns perfectly with the Brenden-Colson Center's goals to improve early detection, advanced therapeutics and quality of life in pancreatic disease.



→ BCCPC participants at the June 2017 GRC.

BCCPC Program Leader [Joe Gray, PhD](#), and BCCPC fellowship recipient [John Muschler, PhD](#), are mapping the pancreatic tumor microenvironment in 3D with ClearLight Diagnostics, a company that is developing next gen imaging platforms. The goal of the collaboration is to develop new treatment approaches to counter microenvironmental mediated drug resistance. Pancreatic tumors are an excellent model for this

study because they characteristically exhibit a reactive stroma and strong immune infiltration and yet have poor clinical outcomes.

CLINICAL UPDATES

The Brenden-Colson Center will soon be developing new clinical collaborations both within and outside of OHSU as part of two new research projects.

- For the newly-funded study, “Blood-based and imaging biomarkers of PDAC in new-onset diabetics” ([Pancreatic Cancer Action Network grant](#)), we will establish a cohort of retrospective blood samples from patients who suddenly developed diabetes late in life and who subsequently went on to develop pancreatic cancer or not, to test the predictive sensitivity and specificity of the IMMray *PanCan-d* blood biomarker platform.
- For an observational trial sponsored by Immunovia, we will be prospectively recruiting subjects who are deemed to be at high risk for pancreatic cancer due to one or more genetic traits and/or familial history. These patients will be monitored via imaging as compared to the IMMray *PanCan-d* blood test.

For both studies we will be reaching out not only to OHSU clinics, but also to primary care providers around the region. In addition, we are collaborating with the California Pacific Medical Center Research Institute (a Sutter Health affiliate), which has access to a large biobank of blood specimens from over 20,000 patients with associated clinical annotations.

CONGRATULATIONS

At a July 6th ceremony, [Erin Gilbert, MD](#), was presented with the 2017 Annual Professional Staff Award in the category of **Outstanding contribution to missions of education and research in the clinical setting** by the OHSU Medical Affairs Program’s Professional Board. Dr. Gilbert was honored for her dedicated mentoring and teaching of residents, including organizing grand rounds speakers, and her patient-centered research around dynamic contrast-enhanced MRI for both the screening and treatment of pancreatic cancer.



[Lisa Coussens, PhD](#), was invited to speak in the Barts Cancer Institute (London, UK) last month in their “**Women of Distinction in Science and Medicine**” series. Her talk focused on “Inflammation and cancer: Fueling response and resistance of immunotherapies.”

Brenden-Colson faculty recruit [Mara Sherman, PhD](#), was interviewed in a recent OHSU **Inside the SoM blog entry**, talking about her efforts to better understand the function of the pancreatic tumor microenvironment to identify stroma-derived pathways to be targeted for therapeutic benefit.

UPCOMING SEMINARS

Stay up to date with BCCPC research by attending our Pancreas Monthly Research Seminar on the 2nd Friday of each month. Recent work is also described at our bi-weekly Pancreas Research Data Sharing meetings (every other Thursday), and our monthly Pancreas Translational Tumor Board (3rd Monday) examines one patient’s disease and therapy from several perspectives (lab assays, clinical progress). If you don’t already get the calendar invites for these and are interested in attending, please contact us at pancreashealth@ohsu.edu to get on the invite list.



IT'S TIME TO REGISTER FOR THE PURPLE STRIDE

Please help spread the word about the Brenden-Colson Center by joining us at the **Purple Stride** this year on **September 23**.

You can register and join **Team OHSU** (a collaboration between the Knight and BCCPC) [here](#). It’s just a couple hours out of your Saturday morning to support pancreatic cancer research – and do our team and our Center proud.

Trainees, be on the lookout for an offer of a limited number of first-come, first-serve free registrations.