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Pancreatic Researchers Advance Next-Generation Molecular Profiling

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Overview Research



Charles J. Yeo, MD, FACS Samuel D. Gross Professor and Chairman Department of Surgery Senior Vice President and Chair, Enterprise Surgery

Finally – A Measure of Normalcy

After two very abnormal years of celebrations, our Department of Surgery Annual Banquet returned in fine style this past June 17. The venue was spectacular – The Franklin Institute. This black tie event was much anticipated, and did not disappoint. Finally – a measure of normalcy.

We gathered for cocktails, shared a meal and were treated to amazing presentations from our outgoing Chief Residents: Drs. Alvarez, Devin, O'Malley, Rios Diaz, Woodward, Zalewski, and Zheng. The statue of Ben Franklin, standing tall at the center of the room, served as a magnet for photos – and proved to be an imposing supervisor of our festivities. While many awards were distributed – research awards, ABSITE awards, teaching awards and others – the two most prestigious awards were presented to Dr. Alliric Willis – the winner of the Francis E. Rosato Faculty Teaching Award (as voted by the residents) and to Drs. Alicja Zalewski and Peter Altshuler – the co-winners of the Philip J. Wolfson Resident Teaching Award (as voted by the medical students).

This was a special night for many reasons. Two of our seven graduating Chief Residents were born out of the U.S. (Trinidad and Venezuela) and immigrated here for education. Two other chiefs were born in the U.S. to immigrant parents from Poland and China. The importance of immigration to the U.S. was on full display. Also on display were the principles of continuity and longevity. Our residency coordinator – Donna Guinto was recognized for her 38 years of service to Jefferson and our Department. She has counselled and advised hundreds of residents (and faculty). Thank you Donna for all you have done for Jefferson. We wish you well as you transition to this next phase of your life journey. Additionally, we welcomed our seven new categorical and five preliminary interns, new members of our Jefferson Surgery family.

Finally – a measure of normalcy!

Please Welcome



We are pleased to announce the recent appointment of Anthony Macchiavelli, MD, as Assistant Professor in the Division of Vascular Medicine.

In 1983, Dr. Macchiavelli received his BS in Physics from the United States Military Academy in West Point, NY, and subsequently served as a United States Army Officer from May 1983 – July 1986. He then received his MD from the Lewis

Katz School of Medicine at Temple University in 1996 and remained in Philadelphia to complete his residency in Medicine (1996-1998) at Graduate Hospital. From 1998 to present, Dr. Macchiavelli has worked in Internal and Hospital Medicine in private practice (1998-2006), Thomas Jefferson University Hospitals (2006-2010), and AtlantiCare health system (2011-2022).

He joined our faculty in early 2022 from AtlantiCare Regional Medical Center where he served as Chairman for both the Anticoagulation Subcommittee of Pharmacy and Therapeutics and the AtlantiCare Institutional Review Board, as well as holding the position of Medical Director for Post-Acute Services.

Dr. Macchiavelli sees patients at Thomas Jefferson University Hospital and Jefferson Methodist Hospital in South Philadelphia.

Pancreatic Researchers Advance Next-Generation Molecular Profiling



Aditi Jain, PhD, and Avinoam Nevler, MD, (center) are spearheading Jefferson's Molecular Profiling of Pancreatic Cancer Program (JMP PaC) with the support of research technicians Sohum Patel and Ryan Maguire, and fellow Saed Khalilieh. MD

The Jefferson Pancreas, Biliary and Related Cancer Center performs more pancreas surgeries than any other center in the tristate region. Each year, the center's team treats more than 200 patients who have cancerous, neoplastic or precancerous lesions.

It's a level of care and volume of patients that presents a powerful opportunity: using molecular profiling to gather extensive data about pancreatic tumors. Molecular profiling can be a valuable tool in treating pancreatic cancer – now the third-leading cause of cancer-related deaths with a five-year overall survival rate of just 11%.

"With molecular profiling, we're looking for patterns and signatures within the underlying genetic structure of an individual tumor," says Aditi Jain, PhD, Research Instructor in the Department of Surgery. Dr. Jain is the recipient of the 2021 Pancreatic Cancer Action Network (PanCAN) Career Development Award, a two-year, \$200,000 grant for "Targeting BARD1 in Pancreatic Ductal Adenocarcinoma."

Together with Dr. Jain, Avinoam Nevler, MD, Assistant Professor and Principal Investigator at the Pancreatic Cancer Research Lab in the Department of Surgery, and research fellow, Saed Khalilieh, MD, are spearheading Jefferson's Molecular Profiling of Pancreatic Cancer, a program known as JMP PaC, or "jump pack." Through JMP PaC, the team will conduct testing to identify biomarkers in pancreatic ductal adenocarcinoma (PDAC) tumors. In addition to helping inform possible tumor-specific treatments, these biomarkers potentially could predict both disease recurrence and signatures of drug response.

"At an individual level, molecular profiling can help to determine targeted treatments for patients. This has already been established in the 'Know Your Tumor' PanCAN initiative," Dr. Nevler explains. "At a global level, we can aggregate these data across centers to create large, comprehensive clinical and molecular datasets. Cancer researchers can use these large repositories both to generate and test new hypotheses for many years to come."

Insurance currently covers molecular profiling only for patients with advanced-stage pancreatic disease. A \$50,000 gift from a grateful patient is laying the groundwork to profile all patients. Now the Department of Surgery needs an additional \$150,000 to cover patient testing and specimen collection, processing and storage that insurance won't fund. The initial contributions, along with sustaining gifts, will support downstream research projects that leverage the information gathered.

For more information, please contact Kelly M. Austin at **kelly.austin@jefferson.edu** or **215-955-6383**.