

THE PEACHEY EFFECT

The Official Newsletter of the Heroes Foundation Catherine Peachey Fund



A Note of Gratitude from Stephanie Rufenbarger Leshar, Volunteer Program Manager, the Heroes Foundation Catherine Peachey Fund:

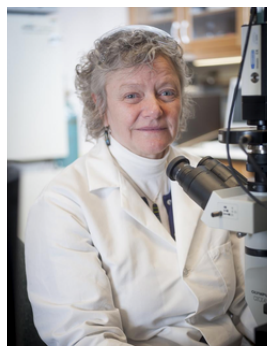
Friends, Happy Summer! The sun is shining, the kids are home from school, vacations are happening, and important breast cancer research is being conducted in Indiana. From the IU Simon Comprehensive Cancer Center to Purdue University to the University of Notre Dame (and more!), exciting progress is being made and YOUR contributions to the Catherine Peachey Fund are instrumental in making that happen. We are making a difference! THANK YOU to the dedicated Peachey Fund committee of volunteers who plan and implement Wine Tasting With Peachey, our annual fundraiser, as well as to our sponsors and donors who make our work possible. We are grateful to be a fund of the Heroes Foundation, whose support makes us stronger and more impactful. Please read on to learn more about the research that we have supported in the first half of 2023. We're just getting started! To follow us all year long, visit heroesfoundation.org.

What's Happening in Research



\$15,000: Revealing Genome Integrity Defect Targets in Breast Cancer, Led by Ann Kirchmaier & Nadia Atallah Lanman, Purdue University

Researchers will evaluate a patient-derived breast cancer line with a known genotype to 1) identify the sites of and types of replication fork impediments genome-wide 2) determine which drugs this breast cancer line is sensitive to, and identify breast cancers with related sensitivities and genetic defects computationally plus 3) demonstrate how chemotherapeutics influence replication through impediments and growth for the original breast cancer line plus a second breast cancer line predicted to respond similarly. This proposed pilot will provide data and demonstrate collaboration for a DoD BCRP proposal resubmission on how replication impediments can serve to inform therapeutic strategies for breast cancers.



\$15,000: Role of the Proteome of Cytoplasmic Lipid Droplets in Metastasis, Led by Dorothy Teegarden, Kimberly Buhman, & Chaylen Andolino, Purdue University

Increased cellular storage of fatty acids (FAs) in cytoplasmic lipid droplets (CLDs) is associated with increased cancer aggressiveness and poorer patient outcomes, suggesting that CLDs contribute to metastasis. Researchers will 1) complete additional proteomic analyses of CLDs from cell lines with altered metastatic capability, 2) validate the association of selected proteins with CLDs whose presence in the CLD fraction is associated with metastatic capacity, and 3) preliminarily test the role of the specific proteins or pathways in steps required for metastasis. It is critical to narrow down the selection of proteins so that future studies can be designed to target specific pathways or proteins associated with CLDs to identify how their association with the CLDs promotes metastasis, thereby allowing for the future development of targeted strategies to prevent or treat metastases.



\$8,000: Komen Tissue Bank Summer Intern Program

The Komen Tissue Bank intern program provides engagement opportunities for students during their undergraduate and graduate careers and moves the work of the KTB forward more quickly. This summer, the KTB will host a total of three part-time interns. Their tasks will range from managing the tissue bank social media accounts (which help previous and potential donors understand what their generosity makes possible) to assisting directly with analysis of work done in the tissue bank lab. The interns will also review data provided by tissue donors to ensure accuracy – a critical task since samples are used by researchers all over the world.

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Amelia Project, February 2023

After a three-year hiatus due to COVID-19, the Amelia Project is BACK! The Amelia Project is made possible through support from the Heroes Foundation Catherine Peachey Fund. Event co-chair, Dr. Hari Nakshatri says the Amelia Project's greatest value for attendees is its ability to provide a single platform for interaction and the exchange of ideas among researchers. "One example is the presentation about a hand-held device developed by biomedical engineers at Notre Dame for breast imaging. They were looking for clinical collaborators. I was able to connect them with clinical collaborators at I.U. immediately after the meeting," Dr. Nakshatri says. For more information about the 2023 Amelia Project, visit heroesfoundation.org/ameliaproject2023.



\$25,000: Inflammatory Breast Cancer Research, Led by Hari Nakshatri, PhD and Michele Coté, PhD, IU Simon Comprehensive Cancer Center

The IUSCCC breast cancer team recently conducted a cell-of-origin analysis of inflammatory breast cancer which showed that most of these cancers do not originate from the same cells as other breast cancers. This is a remarkable finding which the breast cancer research team and the Komen Tissue Bank would like to further explore via development of models using normal tissue samples. This gift will be used for development of new models to study how inflammatory breast cancers originate and how different they are compared to common breast cancer subtypes. IUSCCC breast cancer researchers can harness knowledge gained from this project to develop even more IBC research.

Wine Tasting With Peachey 2023



Wine Tasting With Peachey 2023 was held at the Indiana Design Center in Carmel on Monday, June 19 and was our most successful event to date. We are overwhelmed with gratitude for our volunteers, donors, and partners who came together to raise **\$86,624** for breast cancer research in Indiana. We spotlighted Inflammatory Breast Cancer research with our first-ever "Fund a Project" and a fundraising match from the Milburn Foundation and the Inflammatory Breast Cancer Research Foundation. Attendees enjoyed wine from Peace Water Winery, beer from Crooked Ewe Brewery, small bites from Cater Me Café, a photo booth, art show, and silent auction. Stay tuned for upcoming details about our next Wine Tasting With Peachey event, which will be held in **June 2024!**

