



*How Your Contributions Have Already Made a Difference
Grants Awarded to Date*

To date, total Peachey Fund grants: \$3,190,681

The Catherine Peachey fund is a member of the Heroes Foundation family (a 501(c)(3)). The funds raised to support the following grants were raised by hundreds of volunteers over many years. Projects include: *Just Peachey: Bearing Fruit Cookbook*, *Polo with Peachey*, *Wine Tasting with Peachey* at Peace Water Winery, walks/runs, quilt sales, concerts and the sale of *Just Peachey: Cooking up a Cure*.

The Amelia Project at the IU Simon Cancer Center \$95,000.00: For 13 years, with Dr. George Sledge as Chair, the Catherine Peachey Fund hosted an annual meeting for scientists and clinicians from across Indiana and guests from around the country. It was at these meetings that many of the projects listed below took form and were then funded by the CPF. It was at the Amelia Project that the first movement toward the Komen Tissue Bank began. The KTB has now gone on to become the only biorepository for normal breast tissue in the world.

2018

Dr. Harikrishna Nakshatri, Taxonomy of the Normal Breast \$250,000: One of the most important avenues for the research into normal breast tissue lives in the genetic information found in every cell of a tissue sample. While researchers have not previously had the tools to unlock that information, there is cutting-edge genetic technology that can now sequence or lay out the information found in each individual cell. As the home of the Komen Tissue Bank, Indiana University researchers are uniquely situated to take advantage of this new technology. Unlike any other institution, Indiana University has the mechanisms in place to begin this work immediately. Funding is the only obstacle standing in the way. **Important outcomes for Women:**

- The data derived from single-cell sequencing of tissue samples will create an entirely new roadmap for breast cancer researchers all over the world.
- It will be a tool to identify the favorite pathways and patterns of breast cancer development, ultimately looking for the earliest signs of breast cancer risk and identifying precise ways to treat breast cancer.
- Most critically, it may help to identify the cell type in the breast from which the cancer originated, so that targeted therapies can better treat breast cancer.

This project will create an entirely new avenue of prevention research, ultimately affecting all women. Researchers across the breast cancer community will have the resources to conduct experiments that might determine individualized breast cancer risk assessments or possibly develop new screening techniques. Single-cell sequencing of normal tissue samples has the potential to revolutionize breast cancer research and can only be accomplished at Indiana University.

Richard Carpenter, Ph.D., Indiana University School of Medicine-Bloomington \$45,000: Boosting Immunotherapy for Metastatic Breast Cancer. All deaths from breast cancer result from the spread of cancer cells to other vital organs such as bones, liver or brain in a process called metastasis. While it is possible that metastatic tumors at these different organs may each require different types of treatment, Dr. Carpenter proposes that

immunotherapy, or enhancing the activity of the immune system, is an effective way to target metastatic tumors regardless of the organ site. He and his team have recently identified a new mechanism used by tumors to suppress the immune system. The work funded through this grant seeks to establish a new therapeutic strategy for patients with metastatic breast cancer by targeting this novel mechanism of immune suppression in combination with immunotherapy. These studies may also establish a new biomarker for response to immunotherapy. Dr. Carpenter believes that the proposed preclinical development of this novel therapeutic combination and biomarker will significantly advance the field and provide the basis for moving research from the bench to the clinic to help patients with metastatic breast cancer.

2017

R.E.D. Alliance Critical Support \$21,500: The R.E.D. Alliance's mission is to address the disparity in breast cancer mortality rates of African-American women in Indianapolis through a collaborative approach, faith-based community outreach, and providing access to health care and resources. As finding a cure for triple-negative breast cancer has always been a priority for the Catherine Peachey Fund, supporting the work of this organization fits very well with our mission. This grant provides critical support for R.E.D. Alliance Executive Director, Lisa Hays, including a laptop, as well as other assistance with education and research.

R.E.D. Alliance/Stay Alert, Stay Alive: Breast Health Summit \$2,500: As a member of the R.E.D. Alliance, the Peachey Fund was very proud to be a sponsor of this inaugural Breast Health Summit. The R.E.D. Alliance takes a unique approach to addressing the disparity in breast cancer mortality among African-American women in Indianapolis by meeting these women where they are: in their places of worship and faith-based communities. This *free* summit will give health care professionals and community members tools for fighting this disparity and together finding solutions to reduce the breast cancer death rate for women most susceptible to developing triple-negative breast cancer.

Susan G. Komen Tissue Bank at the IU Simon Cancer Center's 10th Anniversary Campaign \$2,500: Contribution for a new longitudinal study utilizing data generated from the tissue bank. This new study is aimed at making the tissue samples even more valuable to researchers, increasing the likelihood of lifesaving discoveries. This means the bank will ask a subset of tissue donors, past and future, to make a further commitment to regular follow-up questionnaires and possibly minimal additional periodic blood and/or tissue donations.

Intern Stipends for the Susan G. Komen Tissue Bank at the IU Simon Cancer Center \$1,750: For the past several years, the Catherine Peachey Fund has rewarded unpaid interns for their important contributions. Some of the most interesting projects on the "to do list" at the Tissue Bank are not the most pressing. The small staff deals with the big projects first, and the contributions of these interns has always been hugely important in helping the Tissue Bank reach its potential.

2016

Theresa A. Guise, M.D., Andrew R. Marks M.D., Paul Territo, Ph.D. Co-PIs \$33,145: Cognitive Dysfunction Associated with Chemotherapy: Role for Ryanodine Receptor (RyR) Oxidation. Chemotherapy for breast cancer can be associated with debilitating cognitive dysfunction ("chemobrain") during and after treatment. Chemobrain is marked by significant impairment in memory, deficits in processing and executive function, depression and anxiety. The Guise team will be testing a potential therapy for chemobrain in the laboratory utilizing the required equipment purchased by the Catherine Peachey Fund. The therapy being studied has the potential to treat chemobrain resulting from treatment in multiple cancers. This unique research tool will be available to researchers at IU doing similar studies that require this unique research technology.

Leica CM 1860 Cryostat \$30,000: The Leica CM 1860 Cryostat was purchased for clinical research on behalf of the Breast Cancer Program and the Susan G. Komen Tissue Bank at the IU Simon Cancer Center. BCP and KTB

researchers had previously been utilizing a shared Cryostat located miles away from their labs on a contractual basis. The cryostat is used to section tissues with the purpose of identifying proteins that can serve as biomarkers of disease progression or treatment effects. The Leica Cryostat will be located centrally for the shared use of the BCP and the KTB for immediate processing of tissue thus reducing research costs and the time needed to complete projects.

Leica Microtome and Water Bath \$11,643: The Leica Microtome and Water Bath was purchased for the Storniolo Laboratory-Komen Normal Tissue Bank at the IU Simon Cancer Center. Medical and biological researchers are aiming to investigate the normal structure and function of breast cells and tissue. The use of formalin fixation and paraffin embedded tissues enable the preservation of the morphology and cellular details of tissue samples. The purchase of the Microtome will allow researchers to process the samples within the KTB laboratory rather than transporting the samples and contracting with the department of pathology to process the samples after hours thus saving precious time and funding, reducing costs to researchers and enabling the speedy delivery of the samples to research.

Kathy Ridley-Merriweather (Komen Tissue Bank Minority Outreach Coordinator) \$5,000: For printing of 2,000 copies of a full-color booklet, *Give the Gift of a Healthy Future*, a minority outreach brochure. Funding will also provide for the translation of the booklets into Mandarin and Spanish, to facilitate minority recruitment into the Komen Tissue Bank. The data derived from the collection of tissue and individual data on the donors must reflect the diversity of women representative of the United States. True informed consent can only be achieved through sensitive and thorough outreach education illuminating the process and the intent of the donor's unique gift to research.

International Breast Cancer and Nutrition Project (Sophie Lelievre, Purdue University) \$5,000: This grant was used to support upcoming, young scientists through attendance at the meeting. The goal of the symposium is to bring together global public health advocates, clinicians and researchers with an interest in breast cancer prevention to discuss resources necessary to conduct primary prevention research. New types of biobanks and databases in nutrition and epigenetics that are needed to study cancer risk, notably to design prevention interventions and identify biomarkers, taking into account public policy and practices, and socioeconomic and cultural contexts in which environmental factors leading to cancer come into play are discussed. Breast Cancer prevention is a global public health challenge that requires: Utilization of the diversity of diet: environment and epigenetic pool globally: A multidisciplinary approach: biology, epidemiology, medicine, nutrition, social sciences and communication, education, and public policy: Contributions from scientists, clinicians, and advocates: Sustained international effort in research and action.

Harikrishna Nakshatri, Ph.D. (IUSM) and Crislyn D'Souza-Schorey, Ph.D. (University of Notre Dame) \$50,000: Collaborative research project focused on Inter-Individual Variation in Breast Epithelial Extracellular Vesicles. Recent studies have shown extensive inter-individual functional variation in the regulatory regions of the genome that results in wide-spread transcriptome differences among healthy individuals. The central objective of this proposal is to obtain proof-of-concept evidence supporting this hypothesis and generate data that will aid in the submission of a larger, extramurally funded research program aimed at developing an individualized disease progression model, which potentially could have marked impact on personalized medicine.

2015

The Amelia Project \$75,000: The Catherine Peachey fund is pleased to announce a new grant to support the Amelia Project for five years.

Dr. Hari Nakshatri, Dr. Kathy Miller and the Catherine Peachey Fund recently opened the conversation about the value that had been achieved from many years of the Amelia Project. Several important achievements would not have existed without the Catherine Peachey Fund and the IU Simon Cancer Center supporting this annual meeting. The Amelia Project will include researchers and physicians from all institutions in Indiana doing research in breast cancer. The meeting always pulled its strength from being a multi-institutional day bringing together the best and the brightest. Drs. Rich Zellars (Chair, IUSM Radiation Oncology), Joseph Irudayaraj (Professor and an expert in Nanotechnology and biomedical engineering at Purdue) and Crislyn D'Souza-Schorey (Chair, Department of Biological Sciences, Notre Dame) will be co-chairing the Amelia Project in 2016. This represents outstanding leadership for the new beginning of the Amelia Project.

The Komen Tissue Bank at the IU Simon Cancer Center \$2,500: The CPF participated in a fundraising event in partnership with the IU Foundation and Susanna F. Scott and provided matching funds for a portion of the project which raised \$15,000 for the KTB.

Dr. Natascia Marino and Dr. Rulla Tamimi \$50,000: The Catherine Peachey Fund is pleased to announce funding for a proposal entitled: *Molecular mechanisms behind the association of early-life adiposity and breast cancer risk*.

The proposal was submitted by Dr. Natascia Marino from the IU School of Medicine and by Dr. Rulla Tamimi from the Harvard Medical School.

There is accumulating evidence that adolescence and especially the period between menarche and first term pregnancy is an important period for breast cancer susceptibility. Understanding how early life exposures influence breast cancer risk has important implications for understanding breast cancer etiology as well as developing prevention strategies.

This project looks at risk and prevention, uses tissue from the Komen Tissue Bank.

2014

Dr. Hari Nakshatri \$35,500: In 2014 support of the CPF made it possible for us to fund a grant request from Dr. Hari Nakshatri, B.V.Sc.(DVM), Ph.D., Marian J. Morrison Professor in Breast Cancer Research, Professor of Surgery and of Biochemistry and Molecular Biology. The funding will support work that will allow for the comparative analysis of normal breast epithelial cells from African American and Caucasian women. This grant will allow Dr. Nakshatri to rapidly move forward some of the exciting preliminary data from his laboratory relevant to triple negative breast cancer. The \$30,500.00 grant will be matched by funding from the IU Simon Cancer Center.

Dr. Milan Radovich \$50,000: In 2014 the CPF also funded the second year of a two-year grant with \$50,000 to fund bioinformatics support in sequencing Triple-negative breast cancer for clinical trials. Milan Radovich, PhD, Assistant Professor and Co-Director of the IU Health Precision Genomics Program will be bringing on a very talented PhD student who has extensive experience and expertise in next-generation sequencing.

Komen Tissue Bank \$1,500: Stipend for interns to support their work for the KTB (cataloging donor data, sending annual letters for updated donor information, inventory and other tasks needed to assist the small full-time staff at the tissue bank).

2013

Dr. Milan Radovich \$50,000: This grant will provide two years of salary support (a total of \$100,000 over the two years) for a bioinformatician in Dr. Radovich's laboratory. Dr. Radovich: "Because of gracious funding from the Catherine Peachey Foundation, we have been able acquire the latest in next-generation sequencing technology,

the Ion Proton Sequencer from Life Technologies. Our primary goal is to use next-generation sequencing technology to help understand three important clinical questions: 1) Can we improve survival of high-risk TNBC patients by incorporating next-generation sequencing into their clinical care; 2) Can we better understand what causes treatment resistance by studying key changes in TNBC cancer genomes; 3) Can we use next-generation sequencing to detect circulating tumor DNA mutations in the blood and use them as biomarkers of treatment response. Because of the massive amount of data that is produced, and the complexity in analyzing it, highly specialized personnel who are trained in computer science and biotechnology (Bioinformaticians) are needed in order to derive druggable mutations and biological insights.”

Komen Tissue Bank \$1,500: Stipend for interns to support their work for the KTB (cataloging donor data, sending annual letters for updated donor information, inventory and other tasks needed to assist the small full-time staff at the tissue bank).

2012

Indy’s Super Cure \$25,000: The Indianapolis Super Bowl XLVI was an amazing event for Indianapolis and for the Susan G. Komen Tissue Bank at the IU Simon Cancer Center. The Host Committee, under the direction of Allison Melangton, made many lasting contributions to the city and citizens of Indianapolis. The Host Committee created Super Cure as one of its major contributions to the women of Indiana and the world. They raised over \$1,000,000.00 for the Komen Tissue Bank and increased the number of donors to the tissue bank by over 665 women in two days of collections. This unique and monumental community effort increased and highlighted the diversity of women through race, ethnicity and age who are now represented in the only collection of “normal” breast tissue in the world.

Dr. Milan Radovich: \$75,000: This grant supported the purchase of the Ion Proton Next-Generation Sequencer made by Life Technologies. This new sequencer will greatly advance the capability of the lab to perform research in personalized medicine as well as drug discovery.

Dr. Bryan Schneider \$75,000: This grant spanned two years (2011/2012) (\$150,000 total over the two years) to support a position in his laboratory for a scientist/technician to help rapidly move forward work utilizing the preliminary data from his laboratory relevant to triple negative breast cancer.

Komen Tissue Bank \$1,500: Stipend for interns to support their work for the KTB (cataloging donor data, sending annual letters for updated donor information, inventory and other tasks needed to assist the small full-time staff at the tissue bank).

2011

Dr. Bryan Schneider \$75,000: This grant spanned two years (2011/2012) (\$150,000 total over the two years) to support a position in his laboratory for a scientist/technician to help rapidly move forward work utilizing the preliminary data from his laboratory relevant to triple negative breast cancer.

Komen Tissue Bank \$1,500: Stipend for interns to support their work for the KTB (cataloging donor data, sending annual letters for updated donor information, inventory and other tasks needed to assist the small full-time staff at the tissue bank).

2010

Dr. Hartmut Rohm, Department of Surgery at IU \$50,000: This grant supported work in the lab of Dr. Sue Clare on the identification of small molecules against targets identified in the Triple Negative Breast Cancer Transcriptome Sequencing Project.

Dr. Thyagarajan- Sahu \$5,000: This grant supported the study of the Anti-Obesity and anti-carcinogenic properties of Ganoderma Luciderm and its component ganodermanontriol GDNT.

Dr. Milan Radovich, Dr. Bryan Schneider, Dr. Sue Clare \$20,000: This grant supported decoding the landscape of triple-negative breast cancer compared to micro dissected normal breast tissue using next generation RNA sequencing.

Purdue University International Breast Cancer and Nutrition Project \$10,000: This grant was dispensed over four years for awards to junior scientists for their innovative work in breast cancer research.

Dr. Sue Clare \$3,500: This was granted for the purchase of a sophisticated camera for the microscope used to take photos of tissue that has been micro-dissected to produce mRNA for the Virtual Tissue Bank.

2009

Department of Surgery at IU \$14,000: This grant supported the salary for the Data Base Manager for the Komen Tissue Bank.

Dr. Sue Clare \$70,000: This grant supported research on cores of adipose tissue collected during one of the Komen Tissue Bank collections. The fat-soluble substances stored in the body fat are representative of the cumulative exposure of a woman over her lifetime.

Susan G. Komen Tissue bank at the IU Simon Cancer Center \$15,000: This grant supported the purchase of materials and services not covered under the \$1,000,000.00 from Komen to the tissue bank.

Dr. Bryan Schneider \$10,000: This grant supported the triple-negative sequencing of the normal tissue being done in his lab by Dr. Radovich.

Cancer Society of St. Joseph County \$32,000: Supporting the work of the organization in developing educational programs focusing on nutrition and energy conservation, handling the side effects of treatment, money matters and genetics.

2008

Dr. Anna Maria Storniolo \$5,000: This grant funded the research on legal opinions for issues that had not at that time been adjudicated relating to “nonspecific” bio banking for research and also the creation of a “virtual tissue bank.”

Dr. Bryan Schneider \$36,000: This grant supported the project and equipment for “association of buccal mucosa vascularity density with genotype and with outcome in the presence of anti-angiogenic therapy.”

2006-2007

Dr. George Sledge and Dr. Steve Williams, Dr. Sunil Badve \$95,000: This grant supported the purchase of the Illumina DASL. This piece of equipment will be the cornerstone for doing the necessary laboratory work to begin to mine the data from the “normal tissue” in the biorepository at IU.

Dr. Anna Maria Storniolo \$50,000: This grant intended to be given over five years to supplement the salary for the Komen Tissue Bank Administrator.

Dr. Anna Maria Storniolo \$50,000: In matching funds with the Braodripple Key Club to support the work of The Catherine Peachey Breast Cancer Prevention Program at the IU Simon cancer Center.

2005

Dr. Anna Maria Storniolo \$27,000 of \$100,000: Pledged for Mary Ellen’s Tissue Bank: the first biorepository for normal breast tissue that became the precursor to the Susan G. Komen Tissue Bank at the IU Simon Cancer Center.

Dr. Susan Clare \$25,000: This was a matching grant with the Department of Surgery for the development of a data base that would serve Mary Ellen’s Tissue Bank for capturing the data in a HIPPA compliant data base and create tracking software capable of inventorying the samples for storage and distribution.

Dr. Phillip Abbosh: \$500. This travel grant awarded via the *Amelia Project* to study at IU in conjunction with his Purdue project.

2005-2001

Dr. Anna Maria Storniolo \$1,000,000: In 2001, The Catherine Peachey Fund entered into an agreement with Dr. Steve Williams and the IU Breast Program to create a \$1 million-dollar endowment to support the Catherine Peachey Breast Cancer Prevention Program at IU. Dr. Anna Maria Storniolo has been the Director of this program since its inception until the present. This commitment was fully funded by the year 2005, and the program continues today.

2000-2003

Dr. Steve Williams \$150,000: During the years 2000-2003, the Catherine Peachey Fund dedicated \$150,000.00 of funding to the Vera Bradley Chair held by Dr. Linda Malkas. This commitment continued for three years at \$50,000 a year.

Dr. Meei-Huey Jeng \$20,000: Dr. Jeng studies how breast cancer becomes resistant to standard hormonal therapies.

1999

Dr. George Sledge \$10,000: This grant funded the study of the role of matrix metalloproteinases (*MMP*) as an inducer of new blood vessel formation.

Dr. Pamela L. Crowell \$20,000: This project will characterize two novel breast cancer genes.

Dr. Kathy Miller \$14,669: Granted for her project “Breast Cancer Imaging testing Thermoacoustic Computed Tomography: Validation and Physiologic Correlation.”

Dr. George Sledge \$90,000: This grant given to support funding for Dr. Shinichi Nozaki, the Doctoral Fellow recruited by Dr. George Sledge to work with him in his laboratory. Dr. Sledge had this to say: “Dr. Nozaki brings to the laboratory a wealth of prior experience with molecular biology techniques, as well as techniques related to angiogenesis.”

Dr. Harikrishna Nakshatri \$19,906: This grant supported unique research that is an effort to understand why some breast cancer cells do not respond to chemotherapy and also determine which factors increase breast cells' sensitivity to treatment.

1998

Dr. Harikrishna Nakshatri \$20,000: Dr. Nakshatri's lab found that a protein called NF-kB was hyperactive in cancer cells that did not respond to chemotherapy. His group identified a compound that reduced NF-kB and made cancer cells respond to chemotherapy. In addition, this compound along with commonly used chemotherapy drugs reduced spreading of breast cancers to other parts of the body in an animal model. A modified form of the compound is now in clinical trial for leukemia and his group hopes to initiate clinical trial in solid tumors in the near future.

Dr. Kenneth Cornetta \$20,000: His research project, *Gene Therapy for Breast Cancer Using FLT3-Ligand Expressing Vectors*, investigates the use of gene therapy to boost the body's immunity to breast cancer.

1997

Dr. Eric Wiebke \$20,000: This study examined of the role of doxycycline in reversing Adriamycin resistance in breast cancer.

Dr. George Sledge, Jr. \$10,000: This grant supported the study of the inhibition of breast cancer metastasis by Irsogladine, a novel anti-Angiogenic agent.

Dr. Wortia McCaskill-Stevens \$10,000: This grant used for supplemental funding for NIHAU Grant: Bone Loss in Premenopausal Women with Breast Cancer Receiving Adjuvant Chemotherapy or Adjuvant Chemohormonal Therapy.

Dr. Michael Gordon, Dr. George Sledge, Jr. \$20,000: The Catherine Peachey Fund, Inc. was pleased to participate in procuring instrumentation for an angiogenesis laboratory at the Indiana University Cancer Center.

1996

In 1996, The Catherine Peachey Fund made its first round of grants to researchers at Indiana University. The IU records show that grants totaling \$81,568 dollars were awarded to: Heereman, Sledge, Cornetta, Crowell and Nozaki. Unfortunately the records do not record the research projects that these grants supported.