May/June 2021 | Issue 6

USC Norris Comprehensive Cancer Center Keck Medicine of USC



Community for a Cure

Newsletter from the USC Norris Comprehensive Cancer Center

From the Director:



The importance of developing new cancer drugs cannot be overstated. Survival rates for many types of cancer remain low, in part because tumors develop resistance to treatment. Laboratory research by USC Norris investigators has revealed the mechanisms involved in cancer development and progression, enabling us to discover and develop more effective and less toxic cancer drugs. Right now, cross-disciplinary teams of scientists and clinicians at USC Norris are moving discoveries from the bench to the bedside.

Yet, cancer drug development is a complex and expensive process that requires a cohesive strategy and coordinated effort for success from concept to a breakthrough. Thanks to a generous gift, we were able to launch the Rosalie and Harold Rae Brown Center for Cancer Drug Development (CCDD). Partnering with the USC MESH Academy, we now offer a specialized concierge service to USC faculty and external partners to bridge gaps in expertise and funding, de-risk projects, and increase the likelihood of progression of potential cancer drugs to clinical trials.

To expand the pipeline of potential cancer drugs, we held the USC Norris Translational Research Retreat in April 2021 with a focus on novel therapies under development. Attended by over 75 USC faculty members, this exciting event showcased faculty research and unique resources at USC Norris to support cancer drug discovery and development. Further, this month, 16 cancer drug development projects from USC faculty will be presented to an external advisory committee at our inaugural CCDD project review meeting. Our goal is to transform these discoveries into new cancer treatments for our patients.

We hope you enjoy this May/June newsletter in which we highlight the accomplishments of our faculty and our generous philanthropic partners.

Caup Leman

Caryn Lerman, PhD **Director, USC Norris Comprehensive Cancer Center Associate Dean for Cancer Programs** H. Leslie and Elaine S. Hoffman Cancer Research Chair

News



Dr. Chanita Hughes-Halbert to advance cancer equity at USC Norris

Chanita Hughes-Halbert, PhD, will join USC Norris as associate director for cancer equity, a newly created position, and the Keck School of Medicine of USC as a professor and vice chair of research in the Department of Preventive Medicine. Her appointment begins July 1,

2021. We are thrilled to welcome Dr. Hughes-Halbert, a nationally recognized scientist in

cancer health disparities and member of the National Academy of Medicine, to USC Norris! Learn more about Dr. Hughes-Halbert by clicking below.

LEARN MORE >>



Drs. Amir Goldkorn, Timothy Triche, and Vinay Duddalwar awarded a new multi-investigator R01 grant from the National Cancer Institute for translational biomarker studies in advanced prostate cancer

This study will be performed using liquid biopsy samples and CT scans prospectively collected in a 5-year NCI SWOG multi-center clinical trial for men with metastatic prostate cancer. The project combines the investigators' respective expertise in liquid biopsy profiling, targeted sequencing, and radiomic analysis, as well as a first-of-its-kind prostate cancer amplicon sequencing panel co-developed with Thermo Fisher Scientific. These capabilities will be combined to develop new multi-omic signatures for predicting treatment response and tracking disease progression.



Dr. Rongfu Wang, co-leader of the USC Norris Tumor Microenvironment Program, identified specific bacteria and immune mechanisms that protect against colorectal cancer

It is known that gut bacteria and other pathogens can protect against colitis and colorectal cancer by influencing the body's immune system;

however, the biological mechanisms underlying this process were not well characterized. Published in Cell Host & Microbe, Dr. Wang's laboratory addressed this gap in knowledge by identifying the specific organisms and immune mechanisms that protect against colorectal cancer. Read the full publication by clicking below.

SEE FULL PUBLICATION >>



Dr. Eugene Kim, USC Norris Tumor Microenvironment Program member, discovered a new approach to a deadly brain tumor in children

Rates of recurrence for pediatric neuroblastoma remain high. Dr. Kim and his colleagues found that a combination immunotherapy of activated natural killer cells and an antibody directed against

cells initiated prior to the surgical removal of a neuroblastoma was more effective in limiting the spread of cancer and prolonging survival compared to immunotherapy initiated after surgical removal. Read the full publication in the *Journal of Immunotherapy* by clicking below.

SEE FULL PUBLICATION >>

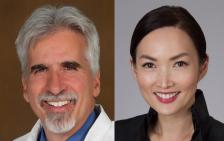


Dr. Amy Lee, associate director for shared resources at USC Norris, identified a key protein and regulator as a novel target to combat lung cancer

Lung cancer is the leading cause of cancer mortality worldwide and KRAS is the most commonly mutated gene in lung adenocarcinoma, a subtype of lung cancer. Published in Oncogene, Dr. Lee and her

colleagues identified that targeting GRP78, a glucose-regulated protein, represents a novel therapeutic approach to suppress mutant KRAS-mediated formation of lung tumors. Read the full publication by clicking below.

SEE FULL PUBLICATION >>



USC Norris members Drs. Hugo Rosen and Wendy Setiawan, co-leader of the Cancer Epidemiology Program, received a major grant from the National Institute on Minority Health and Health Disparities (NIMHD)

Non-alcoholic fatty liver disease (NAFLD) is the most common cause of chronic liver disease and a key risk factor for liver cancer. Drs. Rosen and Setiawan received a major grant from the NIMHD to study the relationship between genetics, lifestyle, environmental, and immune factors in Hispanic patients with NAFLD to understand the mechanisms underlying progression to liver cancer.



Dr. Suhn Rhie, member of the Genomic and Epigenomic Regulation Program, received a grant from the Department of Defense to investigate changes in gene activity in men of African ancestry with prostate cancer

Men of African ancestry have a higher risk of prostate cancer and more aggressive tumors than men of European ancestry. Epigenetics, the study of modifications that do not change the DNA sequence but can affect gene activity, enables us to unravel the hidden molecular mechanisms that give rise to prostate cancer. Dr. Rhie's study will uncover these epigenetic changes in aggressive prostate tumors in men of African ancestry. Findings from this study may lead to new diagnostic tools and treatment options.



Dr. Sia Daneshmand, member of the Translational and Clinical Sciences Program, presented results of a multi-institutional phase II clinical trial of surgery in men with early metastatic testicular cancer

Presented at the 2021 Genitourinary Cancers Symposium, Dr. Daneshmand and his colleagues established retroperitoneal lymph

node dissection, a surgical procedure to remove abdominal lymph nodes, as a therapeutic option for first-line treatment in early metastatic seminoma, a form of testicular cancer. Read the published abstract by clicking below.

READ PUBLISHED ABSTRACT >>

Staff Spotlight



Nancy Iwasaki, Accountant

Ms. Iwasaki has served as an accountant for the USC Norris Business Office for thirteen and a half years. Some of her responsibilities include compiling budgets; creating and managing accounts; and authorizing, approving, and submitting purchases and expense

reimbursements on USC Norris grants and gift accounts. When Ms. Iwasaki is not at work, she enjoys anything that gets her outdoors such as camping and hiking. Her favorite place in the United States is the island of Maui in Hawaii.

Why Your Gifts Matter:



"My devotion to the USC Norris Comprehensive Cancer Center is very simply stated. I have a son who is alive today because of the research done at USC Norris," said Larry Freeman, philanthropist and businessman.

In 1982, Larry and Judy Freeman received life-changing news: their son Mark was diagnosed with T-Cell Lymphoma. The diagnosis was a shock to them and their entire family as at that time they believed cancer to be a death sentence. Thankfully, Mark was deemed cancer-free in 1985. This happened because of the diagnosis at the Department of Pathology at USC Norris and the ground-breaking research done at the USC Norris Comprehensive Cancer Center.

Larry Freeman has been a part of the USC Norris community for almost 30 years, serving on the advisory board for USC Norris since 1991. He and his family also generously support a variety of cancer research and programs at USC Norris, many specifically related to Lymphoma. For 11 years, the Freeman family hosted the Freeman Aces Cancer Tennis Tournament with proceeds benefitting cancer research at USC Norris. Additionally, they endowed the Judy and Larry Freeman Cosmetics Chair in Basic Science, which is held by Dr. Amy Lee, associate director for shared resources. Moreover, in 2008, Larry and his wife Judy made a \$5 million donation to USC Norris. The gift named the Judy and Larry Freeman Cancer Day Hospital, an outpatient facility currently located on the first floor of the USC Norris Cancer Hospital.

"Twenty to thirty years before Mark was diagnosed, others gave to research that helped my son," said Larry. "My objective is and continues to be to raise money so that research can move faster in all phases, specifically in Lymphoma, so that other families will have the same success as we did. Join me in helping us find ways to get through this together."

If you would like to learn more about giving at USC Norris, please contact Robert Weiner, assistant vice president of development, at Robert.Weiner@med.usc.edu.

Patient Story



Barbara Kral volunteered at the USC Norris Comprehensive Cancer Center every week for 15 years helping patients who were undergoing chemotherapy. She provided them comfort, checking in on them, and ensuring they had whatever they needed to get through their treatments. However, in a twist of fate, Barbara found herself in the position of the many patients she had helped over the years.

"I loved volunteering and bringing comfort to chemotherapy patients, and then one day I was a patient," said Barbara.

In 2003, Barbara was diagnosed with Acute Myeloid Leukemia (AML), a cancer of the blood and bone marrow. Having witnessed the quality of care provided to patients at USC Norris throughout her years as a volunteer, Barbara had faith in the physicians that oversaw her treatment and knew she was in the right hands. Throughout her treatment at USC Norris, she underwent multiple rounds and types of chemotherapy. After 11 years of chemotherapy treatment, Barbara heard the news every cancer patient hopes to hear from their doctor -"You are cancer-free."

"I was on chemotherapy for so long and I never thought I would be off of it," said Barbara. "It was truly a miracle to hear this. This is all attributable to the research, the doctors, and the professionalism of USC Norris. USC Norris is a wonderful facility, and I don't think I would have made it at any other hospital."

Happily, due to the care she received from all of the medical professionals that treated her at USC Norris, Barbara is now an AML cancer survivor who enjoys her life completely cancer-free and has done so for eight years.

"Stay tough, stay positive, and recognize that you are in the right place and in the right hands," said Barbara. "You can do it; you can get through this."

Have something to contribute to Community for a Cure? Send it to Hinde.Kast@med.usc.edu

Please contact Robert Weiner, Assistant Vice President of Development, at <u>Robert.Weiner@med.usc.edu</u> to learn more about giving to USC Norris.



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