COMMUNITY for a CURE



Honors and Recognitions



Dr. Evanthia Roussos Torres has been appointed as the new co-leader for the USC Norris Tumor Immunology & Microenvironment (TIME) Program, effective October 1, 2023. The overarching mission of the TIME Program is to discover basic mechanisms that control interactions between tumor cells and their immune microenvironment, leading to the identification of pathways for tumor immunotherapeutic interventions. Read more about Dr. Roussos Torres in our Faculty Spotlight section below.



Dr. Hossein Jadvar, member of the USC Norris Translational and Clinical Sciences Program and a tenured Professor of Radiology with joint appointments in Urology and Biomedical Engineering, was bestowed the Dr. R.D. Lele Oration during the 21st meeting of the Association of Nuclear Medicine Physicians of India for his outstanding contributions to the field of nuclear medicine. Well done!



Congratulations to Dr. Lourdes Baezconde-Garbanati, Associate Director for Community Outreach and Engagement at USC Norris, who is the recipient of the Lester Breslow Lifetime Achievement Award and will be inducted into the 2023 Hall of Fame by the Public Health Alumni Association of UCLA's Fielding School of Public Health. This honor is presented to individuals who have shown exceptional dedication to advancing public health throughout their distinguished careers.





Drs. Josh Neman-Ebrahim, Associate Director for Cancer Research Training and Education at USC Norris, and Caryn Lerman, Director of USC Norris, were selected as the Angel Honorees at the Beacon House Association of San Pedro's 2023 Heart of Recovery Gala that took place on October 27th for their work on the Biomedical Research Apprenticeship Initiative. The Beacon House Association of San Pedro is a state-licensed and certified, nationally recognized,

103-bed substance abuse recovery program for men. The 2023 Heart of Recovery Gala aims to raise awareness and funds to support the Beacon House's mission of helping men overcome alcoholism and addiction to other drugs. To learn more about the Beacon House Association of San Pedro, go here: https://www.thebeaconhouse.org.

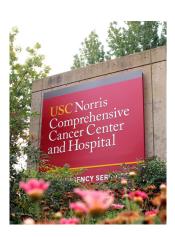


Dr. Sia Daneshmand, member of the USC Norris Translational and Clinical Sciences Program and Director of Urologic Oncology with Keck Medicine of USC's Department of Urology, has been appointed Organ Site Chair for local bladder within the SWOG Genitourinary Committee. Dr. Daneshmand's vision for the future of clinical research in localized bladder cancer, his surgical expertise, and the breadth and depth of his experience as a clinical researcher makes him perfectly suited for this role. Fantastic job!



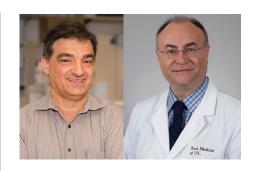
Congratulations to Dr. Dieuwertje "DJ" Kast, co-director of the USC Norris Cancer STEM Education Partnership Program, who was named a recipient of the 2023 40 Under 40 Public Health Catalyst Awards by the Boston Congress of **Public Health.** This cohort represents the next generation of leaders, entrepreneurs, researchers, scientists, activists, intellectual provocateurs, authors, and directors who inspire and catalyze us all to a more just and equitable world.

New Grants



We are proud to announce that we have received a grant from The Ralph Lauren Corporate Foundation (RLCF) to launch a Ralph Lauren Center for Cancer Prevention, slated to open in the spring. This award is part of a \$25 million overall commitment by the foundation to help reduce cancer health disparities in underserved communities.

USC Norris will leverage this funding to increase access to high-quality cancer screening, prevention services, and timely cancer care in L.A. County through an evidence-based approach for patient activation, workforce development, and the coordination of cancer care services. Learn more **HERE**.



Colorectal cancer (CRC) poses a major public health problem in the United States and worldwide. It ranks 3rd overall for cancer death in the world, counting for almost half (46%) of all cancer deaths in men. Congratulations to Drs. Julio Camarero and Heinz-Josef Lenz who received a \$300,000 grant from the American Cancer Society to develop novel therapeutic agents for colorectal cancer treatment. Their research project will focus on the therapeutic targeting of the Hdm2/HdmX E3 ligase in colorectal cancer.



Under the leadership of Drs. Mariana Stern and Chanita Hughes Halbert, we are excited to announce the renewal of the U54 grant that supports the Florida-California Cancer Research, Education and Engagement Health Equity Center (CaRE2). This center addresses cancer disparities with a focus on prostate and pancreatic cancer among African Americans and Latinos, though not limited to those cancers. The program trains underrepresented minority faculty (and graduate and

post-doctoral trainees) to conduct research on cancer health disparities and community outreach and engagement. Numerous USC Norris members participate in teaching. In 2023, this program supported the training of seven post-baccalaureate students, 15 PhD students, 15 post-doctoral fellows, and 15 early-stage investigators. We're excited to carry this momentum forward into the next funding phase.

Scientific Advances and Discoveries



Study focusing on Black cancer survivors documents how exposure to racial discrimination impacts care

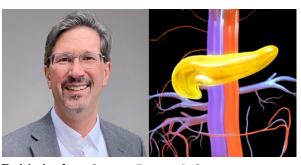
Black cancer patients face significant health disparities throughout the cancer care continuum compared to White cancer patients. Published in the *Journal of the National Cancer Institute*, Dr. Albert Farias, member of the USC Norris Cancer Control Research Program, Dr. Chanita

Hughes Halbert, Associate Director for Cancer Equity, and their team identified major themes and subthemes that highlight exposure to racial discrimination and its consequences for Black cancer patients when receiving cancer care using semi-structured in-depth interviews with Black cancer survivors. Overall, the results of this qualitative analysis identified that exposure to racial discrimination in the healthcare setting is pervasive, affects health-seeking behaviors, and degrades the patient-clinician relationship which may likely contribute to racial disparities in cancer care. To learn more about this study, click **HERE**.



Getting the right treatment in a timely manner really sets patients up for a better prognosis. By learning about how exposure to racial discrimination hinders receipt of high-quality, evidence-based cancer treatment for Black patients, we can start looking at what we can do about it. As an exposure, it's modifiable, which means there's a chance for us to intervene."

-Albert Farias, PhD, MPH



New study demonstrates combination therapy approach as a promising therapeutic strategy for pancreatic cancer

Cancer therapies targeting metabolic derangements unique to cancer cells are emerging as a key strategy to address refractory solid tumors such as pancreatic ductal adenocarcinomas (PDAC) that exhibit resistance to extreme nutrient deprivation in the tumor microenvironment.

Published in Cancer Research Communications, Dr. Steven Grossman, Deputy Director for Cancer Services at USC Norris, and his team discovered that that there are two important components inside the cancer cells of PDAC: one is called nicotinamide adenine dinucleotide (also known as NAD), which plays a role in how the cells work, and the other is a protein called nicotinamide phosphoribosyl transferase which helps make NAD. There are also two other proteins called CtBP1 and CtBP2, which are like switches that make the cancer cells grow and spread. They found that the combined targeting of NAD biosynthesis and the NADdependent transcription factor C-terminal binding protein may be a promising novel therapy for pancreatic cancer. Read the full publication **HERE**.



Effective precision therapies are lacking in pancreatic adenocarcinoma. The key finding of our research underscores the demonstrable efficacy of our developed pharmaceutical agents, designed to inhibit the oncogenic transcription factor CtBP, in synergy with existing NAD metabolism-limiting drugs. This combined therapeutic approach exhibits notable effectiveness in targeting pancreatic cancer."

-Steven Grossman, MD, PhD



Mutations in 11 genes associated with aggressive identified prostate cancer research

Published in the journal JAMA Oncology, Dr. Christopher Haiman, co-leader of the USC Norris Cancer Epidemiology Program, and his team uncovered mutations associated with higher risk for more-aggressive, deadlier prostate cancer that are not currently included on genetic test panels.

The researchers also found some genes that are currently part of such panels are not linked with risk for aggressive disease. This suggests that mutations in this population may put them at greater risk for their cancer later becoming more advanced. While screening is focused on men with advanced disease or a family history, finding patients with less advanced disease who carry these genetic variants may enable them to receive targeted forms of treatment earlier on. Read more about this study by clicking **HERE**.



Very large studies are needed to inform the creation of gene panels used for testing. Some of the genes in these panels were based on small studies and were not associated with prostate cancer in our study. We also found evidence that other genes perhaps ought to be added. The results aren't completely definitive, but it's clear that more work needs to be done to determine which genes oncologists should focus on in testing."

-Christopher Haiman, ScD



USC Norris researcher demonstrates the efficacy of novel therapeutic agent in breast cancer metastasis

Published in *Clinical Cancer Research*, Dr. Bodour Salhia, leader of the USC Norris Epigenetic Regulation in Cancer Program, and her team demonstrated that AZD1390, a drug made by AstraZeneca which blocks DNA damage repair, makes radiation treatment work better for

breast cancer that has spread to other parts of the body. This is particularly useful for tumors with damaged DNA repair mechanisms. This study demonstrates the potential of using AZD1390 as a novel therapeutic agent for patients with breast cancer metastasis and is being tested in clinical trials. Read the full publication HERE.



Few effective treatments are available for patients with brain metastasis. This is in part due to limitations of current therapeutics to penetrate the blood brain barrier and the historically limited availability of clinically and physiologically relevant pre-clinical models for testing new therapies. Our study demonstrated that AZD1390, a potent orally bioavailable and selective ATM inhibitor developed by AstraZeneca, effectively sensitizes breast cancer brain metastasis to radiation therapy in patient-derived xenograft (PDX) models of HER2+ and triple-negative breast cancer brain metastasis we developed in our lab. Our study shows great promise as a therapeutic strategy for breast cancer brain metastasis which have frequent deficiencies in DNA damage repair and warrants testing in clinical trials to prove efficacy in patients."

-Bodour Salhia, PhD

Community Outreach and Engagement:



Community Health Fair

In September, the Office of Community Outreach and Engagement at USC Norris participated in the Community Health Fair hosted by La Voz at Plaza de La Raza. The event was in partnership with the Keck School of Medicine's Hispanic and Latinx inclusion resource group with other Keck School of Medicine related departments. The fair was a free event and open to all community members and employees. It

featured educational demonstrations, wellness activities, and resources such as Zumba instruction, blood pressure checks, diabetes education, and other free health education. The COE office distributed information on cervical cancer, prostate cancer, cancer signs and symptoms, and flyers for future webinars to raise awareness in the community.



5th Annual Getaway Retreat

Thanks to the support from the Audrey Irmas Foundation for Social Justice, a group of young adult cancer patients, survivors, and childhood cancer survivors enjoyed the 5th Annual USC Norris Adult and Young Adult Cancer Program Getaway Retreat this past September. This retreat is an opportunity for young adult cancer patients and survivors to create a supportive community, learn new talents, and relax in a healing and

beautiful setting. This retreat was free for young adult cancer patients/survivors (ages 18-39).

Faculty Spotlight



Evanthia Roussos Torres, MD, PhD, co-leader of the Tumor Immunology & Microenvironment Program

Dr. Roussos Torres is a physician scientist, who has expertise in translational tumor immunology/immunotherapy, including clinical trials, tumor immune microenvironment, and breast cancer metastasis. Additionally, she is an Assistant Professor at the Keck School of Medicine where she leads her own NCI funded lab and works collaboratively with other physicians and physician scientists to continue

her work in immune-oncology with a specific interest in breast cancer and the tumor immune suppressive microenvironment. Recently, she was also appointed as the new co-leader for the USC Norris Tumor Immunology & Microenvironment (TIME) Program. The overarching mission of the TIME Program is to discover basic mechanisms that control interactions between tumor cells and their immune microenvironment, leading to the identification of pathways for tumor immunotherapeutic interventions.

She is deeply dedicated to her research, as well as providing exceptional care to cancer patients and mentoring fellows to become compassionate and knowledgeable physicians. Her strong motivation stems from her personal experience advocating for her mother, who tragically passed away from metastatic breast cancer in 2016. This profound connection fuels her commitment to leaving a lasting impact on the field of cancer research.

"There's nothing quite like becoming a patient advocate for one of the most important people in your life, all while training to become the kind of physician who will eventually make treatment decisions and the scientist whose discoveries have the potential to extend their life," said Dr. Roussos Torres. "It's the kind of inspiration you never wish for, yet it's the very thing that motivates you the most."

Her research focuses on reducing immune suppression to improve immunotherapy in breast cancer. Dr. Roussos Torres has demonstrated in preclinical mouse models of breast cancer that combining an immune suppressor drug called entinostat with immunotherapy, specifically checkpoint inhibitors, improved response to immunotherapy in patients with advanced breast cancer. This form of therapy shows significant potential in extending the lifespan of individuals dealing with breast cancer, while also reducing the adverse effects



resulting from continuous treatment or the advancement of the disease. She was recently awarded R01 funding from the National Cancer Institute to investigate how targeting myeloid suppression enhances antitumor immunity in breast cancer. Her work will reveal how epigenetic modulation of myeloid suppression in breast cancers can improve response to checkpoint inhibition, and, along with collaborators she will incorporate mathematical modeling that will decipher the complex and collective mechanisms of altered suppression, as well as predict tumor response to novel therapies.

"Every research project in my lab tells a story that we hope will lead to a change in clinical practice," said Dr. Roussos Torres. "Our projects begin as tests of novel therapeutic strategies involving immune checkpoint inhibition in mouse models of breast cancer, with the ultimate goal of progressing to earlyphase clinical trials or a deeper understanding of response and resistance mechanisms. We are dedicated to translating basic science into improved therapies for patients.

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Dr. Roussos Torres received a BS in Microbiology, Immunology and Molecular Genetics and in dance, and went on to receive her combined MD/PhD from the Medical Scientist Training Program at the Albert Einstein College of Medicine in New York. She then completed her internal medicine residency at the Hospital of the University of Pennsylvania and her hematology/oncology fellowship training at the University of Pennsylvania and Johns Hopkins University.

"I aspire to be the scientist who, through my discoveries, offers hope for a brighter future for patients, enhancing the quality of their extended lives with innovative immunotherapies."

The Patient Voice: Krista Machovina



Krista Machovina is a Los Angeles-based painter and mixedmedia artist who earned a BFA in Art Education from the University of Illinois and a Master of Arts in Art Therapy from Southern Illinois University. She has maintained a full-time studio practice and exhibition schedule since 2011 and works with nonprofits sharing the enhancing aspects of art making with underserved and medically fragile populations. Her paintings and mixed media work incorporate meditative depictions of the sea and sky with themes of resilience and memory.

A two-time cancer survivor, Krista was diagnosed with metastatic papillary thyroid cancer while still in her twenties. Later, in 2020,

after experiencing alarming symptoms and consequently getting a CT scan, she was diagnosed with a rare and not-so-responsive form of cervical cancer called signet ring cell adenocarcinoma.

"In my gut, I knew something was wrong, but I wanted to believe it was nothing," said Krista. "When I received the second diagnosis, my initial response was one of significant fear. The fear persisted until I started treatment because it felt like I had this unseen enemy inside of me, and I couldn't begin do anything about it until treatment commenced."

To combat this rare form of cervical cancer, her treatment consisted of chemotherapy, radiation, and a radical hysterectomy. Thankfully, after the treatment Krista received at USC Norris, she is now cancer free and has lived two and a half years with no evidence of disease.

"Sometimes, as a survivor, you get a little nervous talking about it because you don't want to be overconfident," said Krista. "But also, why not? Why not just take the win? The 5-year outcome for this wasn't too great. So, to be at two and a half years and doing well, that's amazing, and I'm going to live in that."

While Krista was limited in her ability to make art during her diagnosis and treatment, the integration of her cancer experience can be seen in the evolution of her work. The metaphoric patina developed by weathering all that life had brought her translates to the surfaces and structure of her mixed media and oil-on-panel pieces. The work attempts to hold the bits and pieces of memory. It recalls and collects the small treasures that make each of us who we are: the good, the bad, the ugly, the sublime.

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Krista and her phenomenal artwork were recently featured in the Survivor Art Series, a USC program showcasing the artwork of artists diagnosed with cancer. Patients, families, faculty, staff, students, and the community at large are invited to attend, and this series is offered at no cost to the public.

"Participating in the Survivor Art Series and sharing both your artwork and your story with the audience was a powerful experience. It's not only about showcasing your creativity, but also about



inspiring others. Witnessing the resilience of fellow survivors has the incredible ability to transform fear into a realm of endless possibilities."

Why Your Gift Matters



Derek Alpert's journey with the Concern Foundation commenced when he volunteered to assist family friends in the organization and execution of the annual Block Party on Rodeo Drive in Beverly Hills. His active involvement began in 1979, as one of the original founders of Concern 2, the organization's 'young adult' second generation. He went on to serve as Concern 2's volunteer president for over 12 years. In September 2001, he assumed the role of Concern Foundation's full-time president.

Before taking on the role of president at the Concern Foundation, Derek had a very successful 26 plus year career as a music industry executive as Vice President of Motion Picture Music at Rondor Music Publishing, which was the music publishing

division of A&M Records.

Concern Foundation was established in 1968, when 15 Los Angeles-based couples came together to fight against cancer after their close friend, Beverly Wolman, was diagnosed with breast cancer at the age of 35. They wanted to ensure that their money went towards the advancement of cancer research and helped identify the cause of and eventual cure for this devastating disease. Now, 55 years later, the impact of the Concern Foundation cannot be understated.

"Our goal is to empower the upcoming generation to grasp the significance of basic research," said Derek. "There are no clinical trials, there are no breakthroughs in cancer research until you start at the very beginning. All novel therapies and treatments for cancer begin with looking through a microscope."

Though cancer research is a broad field, Concern Foundation focuses its funding in the areas of immunology, immunotherapy, genetics, and cell biology. These are the basic building blocks needed to achieve a better understanding of a cell's function and mis-function within the human body for both adults and children. By targeting talented post-doctoral scientists and providing crucial salary support for innovative projects, Concern Foundation bridges the gap in the scientific research community. The knowledge gained from these young research scientists will lead to future treatments and early diagnosis, and eventually stop this disease. With an administrative overhead of 5% - 6%, Concern has been able to grant over \$70 million dollars to research projects throughout the cancer research community locally, nationally, and abroad.

"USC Norris has been a significant channel for our philanthropic efforts. We are committed to providing aspiring researchers with the motivation and chance to begin their work in the laboratory," said Derek. "Nurturing their initial steps in this community is a priority for us, and it's heartening to see how many of them have progressed to establish their own laboratories and achieved remarkable success over the years."

The Concern Foundation has played a pivotal role in supporting the USC Norris Comprehensive Cancer Center over the years, generously providing funding to numerous USC Norris researchers. Presently, their contributions are instrumental in advancing various ongoing projects at the Cancer Center, including Dr. Evanthia Roussos Torres' groundbreaking work in breast cancer and immunology, Dr. Anat Epstein's pioneering research on pediatric brain tumors, and Dr. Jin Seok Park's vital investigations into pediatric rhabdomyosarcoma.

Furthermore, Concern Foundation extends its support to the USC Norris Adolescent and Young Adult (AYA) Cancer Program. Established in 2013, this program is dedicated to enhancing the health outcomes and quality of life for adolescents and young adults battling cancer. It achieves this by addressing the full spectrum of medical, physical, psychosocial, spiritual, financial, and legal aspects crucial for the well-being of these patients. Moreover, they are supporters of the NIH-supported, highly competitive Summer Oncology Research Fellowship (SORF) Program held at Children's



Hospital Los Angeles (CHLA) and at USC Norris. SORF immerses top medical students in cutting-edge research experiences within a team science framework in oncology and related fields.

The Concern Foundation has been crucial in propelling cancer research at USC Norris to new heights. Their generous contributions have significantly influenced the funding of essential studies and groundbreaking treatments, thereby bringing us closer to discovering effective solutions for this complex disease.



Upcoming Events

Cancer Center Grand Rounds, featuring Stacy Gray, MD, AM

Eliminating the "last mile" problem in precision medicine: Using cancer care delivery research to optimize patient car November 7, 2023, 12-1 pm

Location: Grand Rounds will take place <u>in person</u> in the Aresty Auditorium, Harlyne J. Norris Research Tower.

OncLive Science SummitTM: Gastrointestinal Cancers

Topics that will be discussed at the summit include management of HER2+ metastatic colorectal cancers, novel approaches to the treatment of rectal cancer, expanding options in the treatment of esophagogastric cancers, TKI-based therapies in hepatocellular carcinoma (HCC), updates in metastatic pancreatic cancer, and the evolving treatment landscape of biliary tract cancer.

November 8, 6-9 PM

Location: Langham Huntington, Pasadena | 1401 S Oak Knoll Ave, Pasadena, CA 91106

To register, click **HERE**.

Cancer Center Grand Rounds, featuring Caryn Lerman, PhD

State of the Cancer Center

November 21, 12-1 pm

Location: Grand Rounds will take place <u>in person</u> in the Aresty Auditorium, Harlyne J. Norris Research Tower.

Cancer Center Grand Rounds, featuring Charles Roberts, MD, PhD

Chromatin remodeler mutations in cancer: from mechanisms to emerging therapies

December 5, 2023,, 12-1 pm

Location: Grand Rounds will take place <u>in person</u> in the Aresty Auditorium, Harlyne J. Norris Research Tower.

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Contact Us

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

To learn more about giving to USC Norris, please contact Minhaal M. Nathani, Executive Director of Development, at Minhaal. Nathani@med.usc.edu

Learn more about the USC Norris Comprehensive Cancer Center on our website: https://uscnorriscancer.usc.edu