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The Patient Voice: Jean Richardson, Dr.PH



After earning her doctorate in Public Health in 1980 from the University of California, Los Angeles, Dr. Jean Richardson made her way across town to become a Trojan, joining Keck School of Medicine at the University of Southern California (USC) as a Research Assistant, later being promoted to faculty. Over the next three decades, she conducted public health research on patient adaptation to cancer treatment protocols, prevention of HIV/AIDS transmission, and early detection of cancer, while teaching undergraduate and graduate classes. Moreover, she served as the co-leader of the Cancer Control Research Program at USC Norris for 17 years.

In 2010, apart from experiencing thirst and constant fatigue, Jean regarded herself as extremely healthy, enjoying activities such as hiking and horseback riding. While she pondered potential health issues such as thyroid issues or diabetes, a cancer diagnosis did not cross her mind. To get to the bottom of her symptoms, she requested an ultrasound scan of her thyroid, during which her physician observed an enlarged lymph node. The physician conducted a needle biopsy of the enlarged lymph node, and Jean apprehensively awaited the results. A few days later, her physician called, and Jean Richardson found herself to be a patient, confronting the disease she had spent decades studying... she was diagnosed with ovarian cancer.

"Being a professional in the oncology field, when I heard that a needle biopsy of the enlarged lymph node in my neck came back as ovarian cancer, I knew it wasn't stage I disease, no matter how good I felt," said Jean. "But it took me some time to accept that fact. I kept thinking...it's got to be early; it's got to be early." Unfortunately, it wasn't early, and Jean was diagnosed with stage IV ovarian cancer, her chances of survival less than 10 percent. However, her oncologist at USC Norris never referred to her chances of survival and moved forward with aggressive treatment to combat the cancer. She underwent multiple rounds of chemotherapy followed by surgery to remove any remaining tumor. Thankfully due to the care she received at USC Norris, her scans came back clean, and she was deemed cancer free. But as with all people who have cancer, the fear of recurrence is real and only time tells whether the remission is enduring.

"These deep body cancers are difficult, because there are no screening tests for them, you can't feel the lumps, and the symptoms often present themselves at a late stage," said Jean. "As a result, most individuals are diagnosed with these types of cancer in later stages, when chances of survival are much lower. Diagnosing ovarian cancer is particularly difficult because there are no screening tests to diagnose it early."

In addition to her research, Jean has a passion for art painting and drawing, which have been part of Jean's life since childhood. Jean received her art training at Art Center College of Design and the Los Angeles Academy of Figurative Art. She works in a variety of media including oil paint, pastels, printmaking, encaustics, and collage. Her artwork has been shown throughout Southern California and sold to private collectors. Her artwork utilizes abstract and realist figurative forms and portraiture to explore the meanings and stories of human interaction, often of women in support of one another and of their families.



"Research and artistic expression have much in common," said Jean. "They both require inquisitiveness, experimentation, innovation, and learning from past work and the work of others. If you enjoy creating artwork, keep at it, and you will continue to get better."



Ten years ago in January 2014, Jean was the first artist to be featured in the Survivor Art Series, a USC Norris program showcasing the artwork of artists diagnosed with cancer. Her artwork has been hanging in the Jennifer Diamond Library ever since. This past month, her phenomenal artwork was once again featured in the Survivor Art Series' latest exhibition. 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. In addition to her artwork, Jean also authored a book titled *When Nothing Feels Predictable: A Path Through*

Cancer (available on Amazon). This book is a story of her personal experience but is also meant to be a helpful roadmap through the complexities of cancer diagnosis and treatment, providing helpful advice and information on how to navigate a cancer journey.

Since completing treatment, Jean has lived for thirteen years with no evidence of disease. She continues to be active as a research and patient advocate particularly for studies directed at understanding and improving prevention and treatment of ovarian cancer. She is currently a patient advocate on an international study of long-term survival of ovarian cancer patients and is a national advocate leader for the Ovarian Cancer Research Alliance.

Faculty Spotlight



Amir Goldkorn, MD, Professor of Medicine Associate Director of Translational Research at USC Norris

Dr. Goldkorn is a board-certified medical oncologist and physician-scientist who is clinically subspecialized in genitourinary (GU) malignancies. He obtained his bachelor's degree from Harvard University and his Medical Degree at the University of California, Los Angeles, where he also completed his Internal Medicine residency.

Subsequently, he trained in Hematology/Oncology at the University of California, San Francisco, where he then remained for three additional years of postdoctoral research in the laboratory of Elizabeth Blackburn, a Nobel Laureate and discoverer of telomerase, the enzyme that lengthens and protects chromosome ends.

"During residency training, I realized that oncology combined many of the unique qualities that drew me to internal medicine in the first place," said Dr. Goldkorn. "Treating cancer demanded not only extensive medical knowledge, but also a strong connection with our patients and their families."

Dr. Goldkorn's laboratory is focused on developing the therapeutic and biomarker potential of liquid biopsies, cancer plasticity, and telomerase. His team leads liquid biopsy studies in phase III multi-center GU cancer trials sponsored by the NCI-SWOG cooperative group, where he chairs translational medicine for prostate cancer. Dr. Goldkorn and his research team develop new workflows for extracting critical molecular information from blood samples, such as tumor-specific DNA mutations, DNA methylation, RNA expression, and protein activation. They implement these new assays in large clinical trials, where they receive and analyze blood samples from



from thousands of cancer patients undergoing treatment at USC and at other centers across the U.S. Ultimately, their goal is to offer better predictors of response to treatment, as well as new insights into mechanisms of treatment resistance. At USC Norris, stemming from this work, Dr. Goldkorn founded and directs the Liquid Biopsy Core, a shared resource that makes liquid biopsy technologies available to Cancer Center investigators.

"As a young clinician and researcher in oncology, I soon realized that cancer was a shapeshifter," said Dr. Goldkorn. "Every new treatment killed some cancer cells while reprogramming and selecting others to survive and persist. To keep our patients healthy, we must stay one step ahead of the cancer by predicting its next move. Liquid biopsy allows us to do this with a non-invasive standard blood sample, which can be collected from our patients before, during, or after their treatment. This allows us to create molecular 'snapshots' of the cancer in real time, which empower us to make more informed decisions about which treatments to use and how to use them most effectively."

Why Your Gift Matters



From where the cerulean Mediterranean Sea meets the shore in Alexandria, Egypt to the cobblestone streets of European cities, Roberto Babinger has traveled the world and experienced its diverse landscapes and cultures with the curiosity of a lifelong explorer since he was a young child. His love for travel stems from his father, who worked for Trans World Airlines, a job that required constant travel for him and his family.

"You learn to embrace the beauty of diversity, to respect people and cultures, and to discover the inherent allure of every corner of the globe—each place, each dish, a symphony of unique experiences," said Roberto. "There's no wrong or right, just a kaleidoscope of different ways of living."

However, in 2003, his world suddenly shifted. As he was getting a routine annual colonoscopy for his ulcerative colitis, another disease revealed itself—stage IV colorectal cancer. Roberto was shocked. His doctor at the time immediately wanted to move forward with surgery.

What initially seemed like an inconvenience transformed into an unforeseen blessing when a scheduling conflict for his surgery provided him with the opportunity to pause and delve into research on alternative institutions and seek a second opinion regarding his treatment options. This search led him to a surgeon at Keck Medicine of USC, who referred Roberto to Dr. Syma Iqbal at USC Norris.

"I formed an immediate connection with Dr. Iqbal," said Roberto. "Her honesty, sound advice, and commitment to aggressive treatment resonated deeply with me. I trusted her."

Roberto's treatment consisted of a tumor removal surgery, a temporary colostomy, and months of chemotherapy. Despite the aggressive nature of his treatment, he found solace and support in the unwavering care of Dr. Iqbal and the compassionate nurses at USC Norris. Their presence became a beacon of light during the hardships and darkest moments of his cancer journey, for which he was profoundly grateful.

After finishing chemotherapy, Dr. Iqbal confirmed that there was no evidence of disease, and he was deemed cancer free. Roberto has continued to be cancer free for over 20 years. In a testament of deep gratitude for the exceptional care received during his cancer treatment, he chose to honor Dr. Iqbal's unwavering dedication by bequeathing part of his estate to support her research efforts in conducting clinical trials in gastrointestinal cancers.

Twenty years later, Roberto continues to come to USC Norris for his annual bloodwork, despite not living nearby, as a heartfelt gesture of gratitude towards the individuals who played a pivotal role in saving his life.

"Visiting Dr. Iqbal and USC Norris once a year is a small gesture; it's a joy to see the people who saved my life. Dr. Iqbal won't be getting rid of me anytime soon."

2024 California Consortium for Cancer Health Equity Symposium



A central priority for USC Norris Comprehensive Cancer Center (USC Norris) is to serve the unique needs of our multicultural catchment area, Los Angeles County. The substantial diversity of our patients and community enables USC Norris to understand the heterogeneity of cancer and ensure that new forms of prevention, diagnosis, and therapy will reduce the cancer burden for all people, including historically underserved groups.

The California Consortium for Cancer Health Equity, led by USC

Norris and City of Hope, hosted a full day hybrid symposium on February 15, 2024, to enhance collaboration throughout Southern California's cancer provider networks and produce actionable outcomes to address barriers and improve access to cancer screenings, clinical trials, and high-quality care for underserved patients. Co-directed by Dr. Chanita Hughes Halbert, Associate Director for Cancer Equity at USC Norris and nationally recognized leader in cancer prevention and minority health research, and Dr. Loretta Erhunmwunsee, a surgeon-scientist at City of Hope Medical Center, the event was attended by roughly 200 people.

"Today's symposium served as a dynamic platform, bringing together experts, researchers, and advocates committed to tackling disparities in cancer care access and outcomes," said Dr. Chanita Hughes Halbert. "Together, we can develop innovative strategies ensuring equal access to quality care, nurturing a future where every individual finds support on their cancer journey."



At the end of the symposium, Drs. Caryn Lerman, Director of USC Norris, and John Carpten, Director of City of Hope Comprehensive Cancer Center, gave closing statements. They both showcased their dedication to addressing social determinants of health in cancer care by each pledging half a million dollars from their respective institutions to fund initiatives aimed at combating cancer health disparities.

Recognizing and addressing social determinants in health within cancer care is paramount to ensuring equitable access, optimal outcomes, and comprehensive support for all individuals facing this challenging disease.



Honors and Recognitions



Congratulations to Dr. Stacey Finley, member of the USC Norris Tumor Immunology & Microenvironment Program, who was promoted to Professor of Biomedical Engineering and Quantitative and Computational Biology at the University of Southern California. This promotion is a historic milestone, marking her as the first Black woman to attain the rank of full professor in the USC Viterbi School of Engineering. Moreover, she stands as one of only four Black women nationally to attain the distinguished rank of full professor in the field of Biomedical Engineering.



Congratulations to Drs. Suhn Rhie and Ugonna Ihenacho, who are the inaugural recipients of the USC Norris Comprehensive Cancer Center Cancer Health Equity Scholars Award for their exceptional scholarship and dedication to communities underrepresented in cancer research. This award will contribute to their professional development as well as opportunities for mentorship, network-building, leadership development, and funding. We believe in their potential to drive progress, furthering our mission to integrate and advance the

principles of diversity, equity, and inclusion into cancer research, training, community outreach, and education.



Dr. Fumito Ito has been appointed as the new director of the Flow Cytometry and Immune Monitoring (FCIM) Core. Dr. Ito's experience and scientific expertise perfectly align with the responsibilities of this position. He is a nationally recognized surgical oncologist and cancer researcher who has a significant clinical interest in melanoma, sarcoma, and breast cancer. The mission of the FCIM is to provide advanced flow cytometry, cell sorting and immune monitoring capabilities and services for advancing basic and translational research with an option for fullservice technical support for clinical immunobiology and immune monitoring correlative studies needed for the pathogenesis, treatment, and prevention of cancer.

Dean's Awards for Excellence

Join us in congratulating our USC Norris faculty members who were selected for the Dean's Award for Excellence in Service, Teaching, Scholarship and Mentoring. These awards acknowledge and honor the contributions, talent, and dedication of the Keck School faculty.



Dr. Jessica Barrington-Trimis received the Dean's Early Career Award for Excellence in Teaching. Dr. Barrington-Trimis has earned this award through her roles as a noted researcher, educator, and

mentor who is credited for her passion, creativity, and productivity.



Dr. Josh Neman-Ebrahim received the Dean's Award for Excellence in Service. Dr. Neman-Ebrahim received this award for his work that fosters inclusivity and diversity and helps bridge cancer research and the clinical communities.



Dr. Omid Akbari received the Dean's Award for Excellence in Scholarship. Dr. Akbari has earned this award through his high-impact collaboration across multiple KSOM departments and other

institutions, as well as advancement in his field of study.



Dr. Yves DeClerck received the Dean's Award for Excellence in Mentoring. Dr. DeClerck has earned this award in recognition of his excellence in mentoring learners, faculty, and staff in achieving their career objectives.

Scientific Advances and Discoveries



USC Norris researcher makes novel discovery that breast to brain metastasis is exacerbated with chemotherapy and induces Alzheimer's-like pathology

Control of breast-to-brain metastasis remains an urgent unmet clinical need. Published in the *Journal of Neuroscience Research*, Dr. Josh Neman-Ebrahim and his team investigated the effect of chemotherapy on brain metastatic progression and promoting tumor-mediated

neurofibrillary tangles and found that chemotherapies increase brain-barrier permeability and facilitate enhanced tumor infiltration, particularly through the blood-cerebrospinal fluid barrier. For the first time, these results demonstrate the importance of the blood-cerebrospinal fluid barrier as a vulnerable point of entry for brain-seeking tumor cells post-chemotherapy and indicate that tumor cells themselves contribute to Alzheimer's-like tauopathy.

"For the first time, we show that chemotherapies like Paclitaxel and Fluorouracil (5FU) actually promote brain metastasis by opening up the blood brain barrier and the blood-cerebrospinal fluid barrier, allowing tumor cells to enter the brain. In addition, we discovered that these chemotherapytreated cancer cells release a protein called Tau that is found in Alzheimer's disease —ultimately resulting in the tumors itself contributing to neurodegeneration and brain fog in patients."

- Josh Neman-Ebrahim, PhD



Multi-omic profiling reveals discrepant immunogenic properties and a unique tumor microenvironment among melanoma brain metastases

Melanoma brain metastases (MBM) are clinically challenging to treat and exhibit variable responses to immune checkpoint therapies. Published in the journal <u>Precision Oncology</u>, Drs. Gino In, Frances Chow, Gabriel Zada, and Fumito Ito conducted a multi-omic study

to examine the molecular features of melanoma brain metastasis, and in doing so discovered that the immunologic features of these tumors are unique with a less immunogenic profile, and particularly, a lack of both NK and B-cells. These results may lead to novel treatment approaches for this challenging disease.

"Modern immunotherapy drugs have revolutionized the treatment of advanced melanoma, but patients with brain metastases do not respond as well to these treatments. We conducted a multi-omic study to examine the molecular features of melanoma brain metastasis, and in doing so discovered that the immunologic features of these tumors are unique with a less immunogenic profile, and particularly, a lack of both NK and B-cells. These results may lend to novel treatment approaches for this challenging disease."

-Gino K. In, MD



Research unveils promising innovative therapeutic strategy for pancreatic cancer

There is a critical need to identify new therapeutic vulnerabilities in pancreatic ductal adenocarcinoma (PDAC). Published in *Oncogenesis*, Dr. Steven Grossman and his team discovered that the CKP protein and a receptor called ErbB3 play important roles in the growth and signaling of pancreatic cancer cells. Targeting ErbB2 with specific

drugs may be a promising therapeutic approach for pancreatic cancer, especially in cases where ErbB3 expression is high.

"Pancreatic adenocarcinoma is among the most lethal of cancers, with an average 5-year survival from diagnosis of only 10%. My team and I found that by blocking the protein called CtBP2, we could stop the growth and spread of pancreatic cancer cells by interfering with the production of another protein called ErbB3. In. addition, we also found that a drug called lapatinib, which targets ErbB2, could be effective in treating pancreatic cancer, especially in cells with high levels of ErbB3 as the cells with higher levels of ErbB3 were more sensitive to this drug. This discovery opens new possibilities for treating pancreatic cancer more effectively in the future."

- Steven Grossman, MD, PhD



New study demonstrates promising novel treatment approach for metastatic breast cancer in phase 1b clinical trial.

Published in *Nature Cancer*, Dr. Evanthia Roussos Torres and her team, in collaboration with researchers at Johns Hopkins University, investigated treatment with a histone deacetylase inhibitor, which is a medication or compound that works by changing how genes are expressed within our cells, in combination with dual immune

checkpoint inhibitor therapy in patients with advanced breast cancer. They discovered that pre-treatment with the histone deacetylase inhibitor, entinostat, and the use of dual-immune checkpoint inhibitors is a safe and promising strategy for metastatic breast cancer warranting further clinical evaluation in a Phase II study.

"These results certainly met our hypothesis that we could improve response to checkpoint inhibition in metastatic breast cancer. Our study highlights the need for a deeper investigation of the breast cancer tumor microenvironment with a focus on changes in myeloid (immune) cell populations to determine their role in sensitization of the tumor microenvironment to treatment with immune checkpoint inhibitors."

- Evanthia Roussos Torres, MD, PhD

Community Outreach and Engagement:



5th Annual Cancer in the Community Conference

Hosted by the USC Norris Comprehensive Cancer Center's Office of Community Outreach and Engagement, the 5th Annual Cancer in the Community Conference, a bi-coastal meeting between Florida and California, took place last month at the Aresty Conference Center at USC Norris. Ninety-two attendees joined both in person and on Zoom. For the first time, we had live translators in Mandarin, English, and Spanish.

Prominent scientists, including Drs. Heinz-Joseph Lenz and Josh Neman-Ebrahim from USC, along with Dr. Rene Reams from Florida A&M University, gathered to break down brain, prostate, and colorectal cancer advancements for our community members. Dr. Caryn Lerman, director of USC Norris, kicked things off with an inspiring opening address.

Congratulations to Freddie Muse Jr., a two-time prostate cancer survivor and chair of the USC Norris Community Advisory Board (CAB), and Pastor Rhonda Holbert, a breast cancer survivor and CAB member, who were the recipients of the 2023 Service Award! Their phenomenal and impactful work in the cancer community through the Men's Cancer Network and the Celebrate Life Cancer Ministry respectively, truly deserves recognition!



COE/Celebrate Life Ministry Donation Collaboration

In December, our USC Norris Office of Community Outreach and Engagement joined forces with Pastor Rhonda Holbert and the Celebrate Life Ministry to donate blankets, socks, and other items for patients receiving chemotherapy at USC Norris Cancer Hospital.



ZooTopia

Last month, the USC Norris Adolescent and Young Adult Program held their annual event Zootopia at the Los Angeles Zoo & Botanic Garden. This event was supported by the Concern Foundation for Cancer Research for young adult cancer patients/survivors to enjoy a relaxing day with their kids and family members at the zoo. Besides FREE zoo

admissions, guests also enjoyed a catered gourmet lunch, as well as special group activities hosted by Cancer Support Community Los Angeles to bond with other families.



Cancer Survivorship Advisory Council December Meeting

In December, our USC Norris Cancer Survivorship Advisory Council (CSAC) featured Dr. Yves DeClerk who presented on the History of Cancer. The council meets on the second Wednesday of every month from 12 to 2 p.m. Cancer patients, survivors, and loved ones are invited to join. CSAC works in collaboration with the USC Norris and Keck

Medicine of USC to promote cancer research, improve health outcomes, and provide a more satisfying patient experience. For more information, go to: <u>https://uscnorris.com/csac</u>.



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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 <u>Minhaal.Nathani@med.usc.edu</u>

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