Time=Life

USC Norris Comprehensive Cancer Center

NOW.

Now we must not hesitate. Now we must be bold and push our best ideas forward. Now we must advance the frontiers of cancer science. Now we must expand the tools and practices we use to heal patients. Now we must be more compassionate than ever before. Now we must invest in our people. Now we must make the fight against cancer even more personal.

It’s Time.

When a person receives a cancer diagnosis, the first thing that often comes to mind is time. How long until I feel better? How long do I have with my family? How long until there’s a cure?

At USC Norris, we understand that the fight against cancer is also a race against time. That’s why we are harnessing data science to rapidly identify cancers when they are most curable. That’s why we are hastening the convergence of disciplines to find bold new approaches to cancer prevention and treatment. That’s why we are accelerating access to clinical trials that provide the most innovative therapies for our patients. That’s why we are never stopping to rest.

Research and Clinical Trials

Quickening the Pace of Scientific Discovery

Today, the most exciting scientific breakthroughs come from the convergence of disciplines, and that's why USC Norris values and supports transdisciplinary collaboration. USC Norris researchers represent 31 different departments and seven schools across USC's dynamic campus. Together as a cancer-fighting community, our scientists are dedicated to saving lives and improving quality of life. Thanks to our cutting-edge research, USC Norris patients have access to the latest clinical trials. And each day we discover new ways to diagnose cancer more quickly, new treatment methods, and new strategies to prevent cancer altogether.

In the U.S., one in three women and one in two men will get cancer in their lifetime.

Source: American Cancer Society

Patient Care

Rapid Response Teams

At USC Norris, the patient is always the center of our focus. Translating USC laboratory discoveries to the clinic, we provide care that is personalized based on genetic and lifestyle factors, and other individual differences. Using a team approach to patient care, we rapidly gather USC Norris experts in cancer genetics, pathology, radiology, oncology and surgery to determine the best treatment plan for a patient's unique cancer-related needs. We review our portfolio of clinical trials in progress and match patients to a trial whenever possible.

Yi-Tsung Lu, MD
Clinical Instructor
of Medicine

Dr. Lu is studying the use of liquid biopsies—non-solid biological tissue, primarily blood—to more easily detect the presence of cancer in the body, allowing a more rapid understanding of whether a particular treatment is effective.

Suhn K. Rhie, PhD
Assistant Professor
of Biochemistry and
Molecular Medicine

By using both molecular biology and bioinformatics, Dr. Rhie's lab is discovering mechanisms of human diseases—contributing to the development of new, more effective therapies.

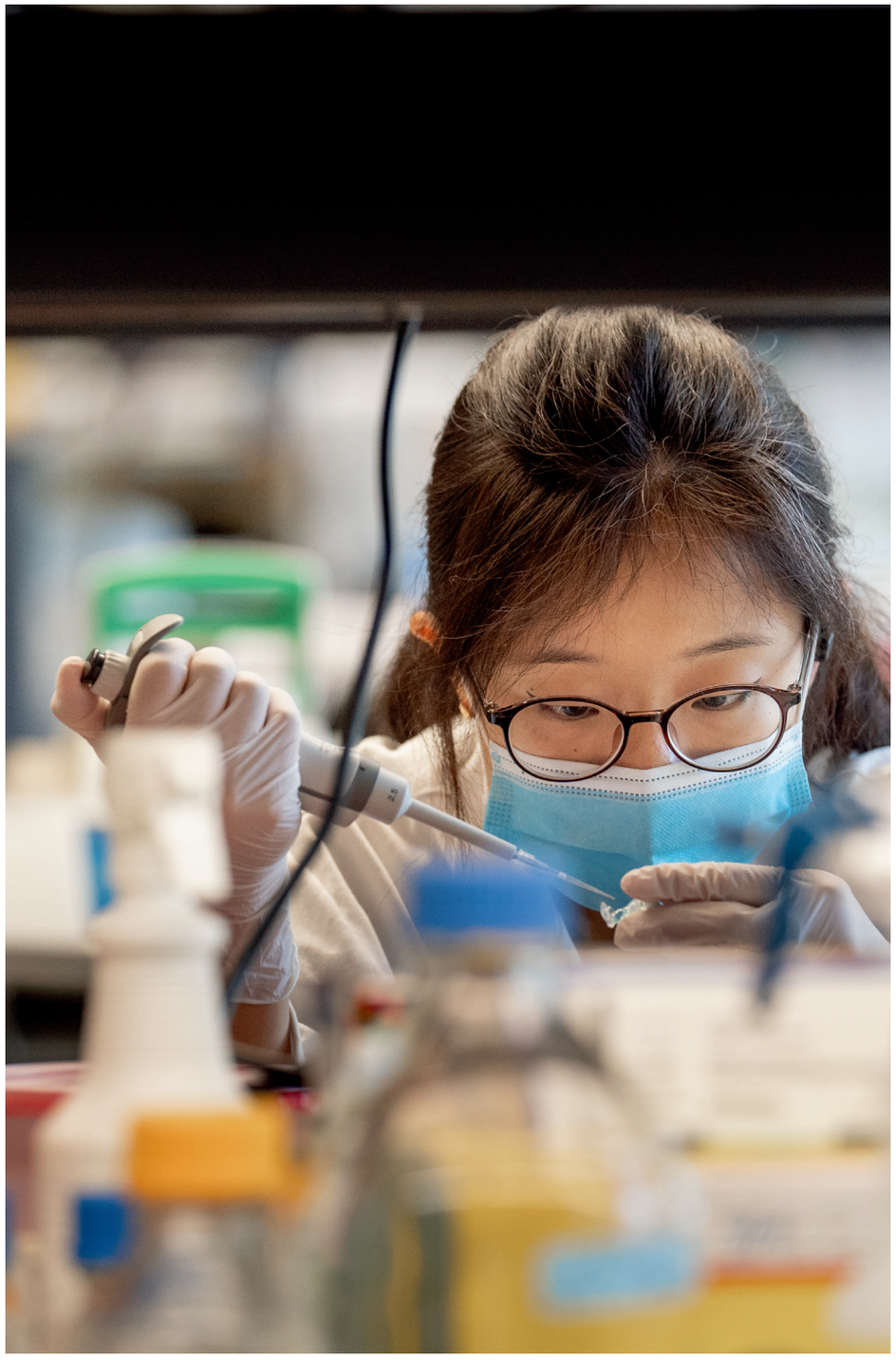
Shannon M. Mumenthaler, PhD
Assistant Professor of Medicine;
Laboratory Director, Lawrence J.
Ellison Institute for Transformative
Medicine of USC; Director,
Stephenson Family Personalized
Medicine Center

Dr. Mumenthaler applies a uniquely multidisciplinary approach toward her research program, partnering with mathematicians, clinicians and engineers to explore critical areas in cancer.

Education

Training Tomorrow's Cancer Scientists Today

The future of cancer research is greatly dependent on our ability to continue to train the next generation of cancer scientists. As the landscape of cancer research has become increasingly multidisciplinary, it is also essential to train individuals who are well prepared to cross disciplines and to productively function in a synergistic and convergent environment. Under the leadership of Yves DeClerck, MD, the USC Norris Cancer Research Training and Education Coordination (CRTEC) program is preparing the next generation of basic, translational, clinical and population scientists, with a focus on convergent minds, inclusion and diversity.



Accelerating Research Now.

At USC Norris, we are unleashing our innovative ideas to accelerate research discoveries and make an even greater impact to reduce the burden of cancer in our region and beyond. The opportunity to leverage our strengths and rapidly advance our strategic research priorities is more important than ever. Each priority taps the expertise of multiple USC Norris research programs and holds enormous potential to bring lifesaving advances to our community and the world.

Cancer Disparities

Cancer does not affect all communities equally. Some races or ethnicities have a higher incidence or mortality rates for certain types of cancer. Cancer clusters develop in some communities. Even country of birth or where someone lives can influence their risk of cancer. Access to care is vital to ensure all people receive the care and treatment they need. Understanding what drives these differences is essential for alleviating the impact of cancer in every community.

Right now, USC Norris has unmatched expertise in investigating cancer disparities. We've been gathering data and studying cancer trends among different population groups for more than 46 years. Our location in the heart of Los Angeles enables us to study cancer rates across one of the nation's most diverse regions, looking for patterns in terms of race and ethnicity, geography and environmental exposures, diet and lifestyle, socioeconomic status, and access to health services.

Risk Assessment and Prevention

Why do some people get cancer and others don't? We know that genetic predisposition puts certain people at risk, and that environmental and lifestyle factors such as diet and obesity, tobacco use, and sedentary behavior also play a role. Eradicating cancer requires that we solve this complex equation to reveal how these forces work together in their contribution to cancer. From this understanding, we are developing and delivering the best risk-assessment and prevention strategies for individuals and communities.

Right now, USC Norris is driving innovation in the assessment and monitoring of cancer risks for all populations. Our experts in data science and artificial intelligence are leveraging our location in one of the world's most diverse metropolitan regions to validate new comprehensive cancer risk-prediction models. By deploying wireless monitoring devices, our researchers incorporate data on nutrition, physical activity, and environmental exposures into their models. The result will be vastly improved cancer-prevention strategies and precision targeted cancer screening that will save lives.

Drug Discovery

The importance of conducting cancer drug discovery research cannot be overstated. Despite the use of new targeted therapies and immunotherapies in recent years, survival rates for many cancer patients remain low, in part because tumors develop resistance to the 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 and other therapies.

Right now, cross-disciplinary teams of scientists and clinicians at USC Norris are moving discoveries from the bench to the bedside. USC Norris leaders are selecting the most promising drug candidates in our research pipeline to advance to clinical trials. This exciting work holds tremendous promise for transforming cancer care for millions of people worldwide.

Biomarkers and Diagnostics

A cancer biomarker is a substance, such as a particular protein, that indicates the presence of cancer in the body. Such biomarkers are traditionally gathered through a biopsy, but new breakthroughs in areas such as liquid biopsies—using non-solid biological tissue, primarily blood—are making biomarkers an increasingly powerful diagnostic and monitoring tool for cancer. Because they are non-invasive, liquid biopsies can be done more frequently, allowing us to better track tumors or monitor treatments.

Right now, USC Norris scientists are examining tumor cells and DNA that are found in the blood of cancer patients enrolled in clinical trials. By integrating data from circulating tumor cells and DNA with imaging, these novel biomarkers will provide early evidence of treatment efficacy or resistance—and enable close monitoring for cancer recurrence. This in turn enables us to adapt cancer treatment over time for the best possible outcomes for our patients.

Immunotherapy

In many cases, the most effective tool to combat cancer is a person's own immune system. As part of its normal function, the immune system detects and destroys abnormal cells and likely prevents or curbs the growth of many cancers. Once cancer has developed, certain therapies can be introduced to encourage immune cells to respond more strongly. Other cancers can be combatted by suppressing certain cells within a patient's immune system. Cancer immunotherapy is a rapidly growing area of research with vast potential for saving lives.

Right now, USC Norris researchers are urgently working to discover new ways to boost the body's natural defenses to fight cancer. Our portfolio of pre-clinical research and early-phase clinical trials will bring innovative immunotherapies to the diverse patient populations of our community, and we will identify approaches that are most effective for different cancers and different populations. This is yet another new frontier of cancer research where USC Norris is already making an impact.

A Team of Experts.

Imagine 250+ physicians, scientists and leaders, united in the fight to make the world cancer-free.

"We are at a pivotal moment in cancer research where remarkable scientific and clinical breakthroughs are changing the course of how we prevent, detect and treat this disease. With the exceptional talent, dedicated clinicians, entrepreneurial mindset and culture of inclusion throughout USC Norris Comprehensive Cancer Center, there is no limit to what we can accomplish together."

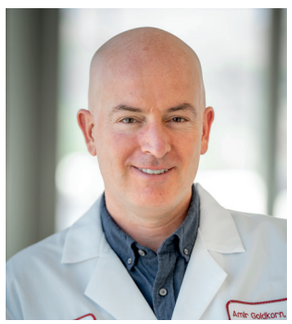
Caryn Lerman, PhD
Director, USC Norris Comprehensive Cancer Center; H. Leslie Hoffman and Elaine S. Hoffman Chair in Cancer Research; Associate Dean, Cancer Programs

"Through the power of DNA technology, we are now identifying differences in the genomic makeup of cancers across populations. This is adding to our understanding of the factors influencing differences in cancer risk and outcomes among racial and ethnic minorities."

John D. Carpten, PhD
Royce and Mary Trotter Chair in Cancer Research; Professor and Chair, Department of Translational Genomics; Director, Institute for Translational Genomics

"USC Norris's location in Los Angeles, an ethnically diverse and populous region, provides unique advantages for the study of cancer patterns, causes, prevention and treatment. In turn, we are committed to hearing, learning, understanding and fulfilling the needs of our community."

Lourdes Baezconde-Garbanati, PhD, MPH
Professor of Preventive Medicine; Associate Dean, Community Initiatives; Associate Director, Community Outreach and Engagement



"At our NCI-designated Liquid Biopsy Core, thousands of patient blood samples are analyzed for rare circulating tumor cells and DNA. Based on these non-invasive liquid biopsies, USC Norris investigators are pioneering new biomarkers to track cancer in real time and help guide treatment decisions."

Amir Goldkorn, MD
Associate Professor of Medicine; Kathryn M. Balakrishnan Chair for Cancer Research; Associate Director for Translational Research

"USC Norris scientists are leading the way in understanding what causes cancer, how to prevent it, and what factors influence survival—with special emphasis on the diverse populations in our community."

Mariana C. Stern, PhD
Professor of Preventive Medicine and Urology; The Ira Goodman Chair in Cancer Research; Associate Director of Population Sciences

"USC Norris's renowned physicians and scientists have contributed to cutting-edge technologies and pioneering therapies that now are considered standards of care throughout the world."

Heinz-Josef Lenz, MD, FACP
Professor of Medicine; J. Terrence Lanni Chair in Gastrointestinal Cancer Research; Co-Director of the Rosalie and Harold Rae Brown Center for Cancer Drug Development at the USC Norris Comprehensive Cancer Center

Now is the Time.

When you think of the team at USC Norris, you probably picture the many doctors, nurses and researchers who are helping patients and saving lives every day. But some of the most important members of our team are people just like you. Those who make gifts to USC Norris help make everything we do possible.

Imagine the difference you can make—today. Your gift to USC Norris can be used to accelerate innovative research and help us conquer the most challenging cancers. Your gift is also an opportunity to thank the frontline providers who made a difference to you or your family as well as the scientists who developed the treatments you or your loved ones received. Investment in our talented people and the latest technologies will accelerate cancer research and discovery in our region, across the country, and around the world.

Learn more about how you can help us now.

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