

# THE CANCER INSTITUTES AT NORTHWESTERN MEDICINE SKIN CANCER INSTITUTE



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### SKIN CANCER INSTITUTE

Skin cancer—the most common form of cancer in the United States—impacts all of our lives. It is estimated that at least one in five Americans will develop skin cancer during a lifetime. Unlike many common cancers that are becoming less widespread, the incidence of all forms of skin cancer continues to rise as shown in epidemiologic studies over the last few decades.

At Northwestern Medicine, we are deeply committed to reversing the growing prevalence of all forms of skin cancer. Through our Skin Cancer Institute within the Robert H. Lurie Comprehensive Cancer Center of Northwestern University, we are providing expert patient care and spearheading high-impact research, education, and training. We offer multidisciplinary leadership and care from leading figures in dermatology, surgical oncology, medical oncology, and radiation oncology. The work and vision of our leaders are based on cutting-edge laboratory and clinical research. We are the Chicago area's leading site for the care of patients with skin cancers (including melanomas, cutaneous lymphomas, and carcinomas) and are proud to offer a comprehensive and patient-centered clinical program. As a premier teaching institution, we are training the next generation of skin cancer specialists and researchers.

#### Prevention and Early Detection

The Skin Cancer Institute is a trailblazer in education and research that focuses on preventing and detecting skin cancer. We are performing research on how people learn and can be motivated to change their behavior, leading to out-of-the-box thinking about early detection and changing behavior to prevent skin cancer. Project Skin Watch is an educational research study that teaches melanoma patients and their partners to perform accurate skin checks and detect skin cancer early. When melanoma is detected in its early stages, the five-year survival rate is nearly 100 percent. Since only 16 percent of melanomas are found by physicians, direct patient education is crucial.



“Through the Skin Cancer Institute, we are endeavoring to reverse the growing incidence of all forms of skin cancer by contributing breakthroughs and innovations to help patients today and in the future. Based on our excellence in research, Northwestern is one of only six Skin Disease Research Centers as designated by the National Institutes of Health.”

Pedram Gerami, MD, Professor of Dermatology and Director,  
Skin Cancer Institute

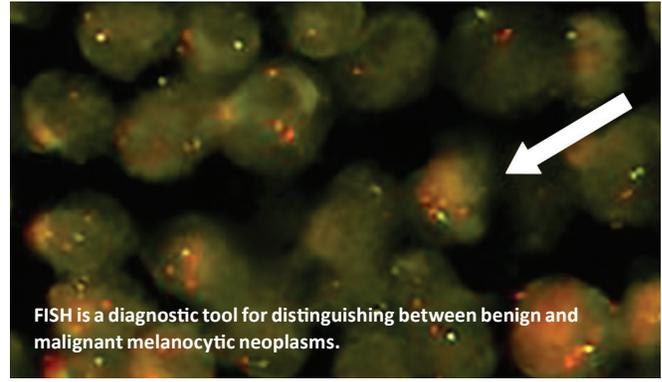
#### Melanoma

Melanoma is the most deadly form of skin cancer. Promising breakthroughs are on the horizon, but much work needs to be done. At the Skin Cancer Institute, we are studying and developing new detection techniques and markers, as well as novel therapies that will help patients receive care that is personalized and more effective in treating their particular melanoma diagnosis. In our Melanoma Multidisciplinary Clinic, we conduct mole mapping and total body photography to monitor high-risk patients, and work closely with them to coordinate their dermatologic, medical, and surgical oncologic care. Northwestern is the region's largest center for the surgical treatment of melanoma and a research center for testing new systemic interventions for metastatic melanoma. We also offer a vast expertise in histology and molecular diagnostics. The Northwestern Molecular Diagnostics Laboratory is one of only four laboratories in the nation to perform fluorescence in situ hybridization (FISH) as a diagnostic tool for distinguishing between benign and malignant melanocytic neoplasms. We are developing a promising molecular technique to test the prognosis of melanoma with a simple scraping of the skin.

These and other offerings make Northwestern a world-referral center for helping patients and their doctors determine a tumor's nature and prognosis. In addition, our institution has obtained funds to create the first multi-center melanoma frozen tissue bank to enhance future research options.

#### Cutaneous Lymphomas

Cutaneous lymphomas are rare, yet the incidence has doubled over the past 25 years (4,500 new patients per year). Patients with cutaneous lymphomas, the cause or risk factors of which are unknown, often suffer from intractable itchiness, skin pain, ulcers, and infections, which greatly impair quality of life at many levels including one's ability to sleep. Many of the currently utilized medical and phototherapeutic approaches to treat cutaneous lymphoma were originally developed and/or tested at Northwestern, and we continue to develop and review new methods. Current therapies include biologic



FISH is a diagnostic tool for distinguishing between benign and malignant melanocytic neoplasms.

treatments, chemotherapy, phototherapy, photopheresis, and allogeneic stem cell transplantation, a promising technique for which Northwestern was the first and remains one of the largest bases of experience. This kind of stem cell transplant is the only treatment that provides a state of being disease-free for more than 12 years for patients with advanced disease and possibly a definitive cure. Our Cutaneous Lymphoma Clinic is recognized internationally as a model for patient care, with experts in hematology/oncology, dermatology, and dermatopathology who consult with radiation oncologists, surgeons, and psychologists as needed.

### Basal Cell and Squamous Cell Carcinomas

Approximately 13 million Americans have a history of non-melanoma skin cancer, typically diagnosed as basal cell carcinoma or squamous cell carcinoma, both of which are curable. Northwestern is a leading center in the care of skin cancer patients with extensive sun-damage and immune suppression such as those who have received solid organ transplants (kidney, heart, pancreas, liver, and small bowel). Through the Skin Cancer Institute, we carefully evaluate these patients who are at 100-fold increased risk of squamous cell skin cancer before transplantation and then annually to ensure early detection of these cancers. We provide education about sun protection. We also monitor individuals who are at heightened risk, including those with chronic leukemia, HIV, lupus, rheumatoid arthritis, Parkinson's disease, multiple sclerosis, and others. Research efforts in this field at Northwestern are also burgeoning. Northwestern is one of 11 collaborating sites studying hedgehog inhibitors and their role in treating basal cell cancers, which are currently treated by surgery. It is the hope that hedgehog-inhibiting drugs could prevent, cure, or provide alternative treatment for those who have cancer that is inoperable or cannot be treated with radiation (i.e. basal cell cancer near the eye).

### Oncodermatology

Northwestern has one of the few clinics in the nation dedicated to the care of the mucocutaneous side effects of traditional chemotherapy, newer targeted anti-cancer therapies, and stem cell transplantation. Our clinical team is deeply committed to better understanding these reactions through research and ameliorating the quality of life of patients undergoing chemotherapy who often suffer from severe rashes, skin tumors, and itchiness.

### Northwestern Medicine

Northwestern Memorial HealthCare and Northwestern University Feinberg School of Medicine are seeking to impact the health of humankind through Northwestern Medicine. We aspire to be the destinations of choice for people seeking quality healthcare; for those who provide, support, and advance that care through leading-edge treatments and breakthrough discoveries; and for people who share our passion for educating future physicians and scientists. Our commitment to transform healthcare and to be among the nation's top academic medical centers will be accomplished through innovation and excellence.

The Cancer Institutes within our world-class Robert H. Lurie Comprehensive Cancer Center of Northwestern University are providing exciting opportunities to bring our best people, programs, and resources together to plan, coordinate, and implement patient care, research, education, community service, and advocacy across the realm of cancer. These robust interfaces and collaborations will undoubtedly lead to clinical advances that benefit patients and their families locally, nationally, and across the globe.



## THROUGH NORTHWESTERN MEDICINE, WE ARE CREATING A NATIONAL EPICENTER FOR HEALTHCARE, EDUCATION, RESEARCH, COMMUNITY SERVICE, AND ADVOCACY.

### About the Lurie Cancer Center

- The Robert H. Lurie Comprehensive Cancer Center of Northwestern University—one of 50 National Cancer Institute (NCI)-designated Comprehensive Cancer Centers in the nation—is committed to being a national leader in the battle to overcome cancer.
- The Lurie Cancer Center supports care for a broad range of cancer types through comprehensive research; distinguished and dedicated faculty and staff; a world-class teaching program; and ongoing advances in medical, surgical, radiation, and interventional oncology.
- We are a founding member of the National Comprehensive Cancer Network (NCCN): an alliance of 27 of the nation’s leading cancer centers dedicated to improving the quality, effectiveness, and efficiency of cancer care so that patients can live better lives.
- Northwestern’s Lurie Cancer Center is a founding member of the Big Ten Cancer Research Consortium, which collaborates on oncology clinical trials that leverage the scientific and clinical expertise of the Big Ten universities.
- The Lurie Cancer Center has established major research strengths in breast, genitourinary, gastrointestinal, aero-digestive, neurologic, and gynecologic cancers; hematologic malignancies, sarcoma, melanoma, cutaneous lymphoma, and pediatric oncology.
- Our research programs in hormone action/signal transduction, angiogenesis, gene regulation, biologic therapies, mathematical modeling, and nanotechnology are nationally and internationally recognized.
- The Lurie Cancer Center OncoSET (Sequence, Evaluate, Treat) Program, launched in 2015, combines genomic sequencing and molecular diagnostics to identify new, individually tailored treatments and clinical trials. We recently initiated the Lurie Cancer Center OncoSET Clinic with the leadership of Massimo Cristofanilli, MD, associate director for Precision Medicine and Translational Research. The OncoSET Molecular Tumor Board, a multidisciplinary group of physicians and scientists, reviews the results and recommends a personalized treatment plan.
- The Translational Bridge Program is one example of how the Lurie Cancer Center is fostering collaboration to heighten the impact of translational research by providing funds for Postdoctoral Fellows to conduct research in an area of fundamental importance to cancer biology, with future potential for translation into a diagnostic or therapeutic setting. Lurie Cancer Center Bridge Fellows carry out their projects in a basic science lab headed by a seasoned investigator, and partnered with a clinician with expertise in a particular cancer or clinical research field. The Bridge Fellow is mentored by both of these faculty members, serving as a bridge to exceptional translational research.
- Our outstanding basic, translational, and clinical research complements a full range of prevention, early detection, treatment, rehabilitation, and palliative care programs for all types of cancer.
- Our nationally recognized supportive oncology programs and survivorship specialty clinics include fertility preservation services for young adult cancer survivors.
- A five-year grant from the NCI is supporting the creation of the Chicago Cancer Health Equity Collaborative (ChicagoCHEC) and helping Northwestern, the University of Illinois at Chicago (UIC), and Northeastern Illinois University to work together with many of the city’s underserved communities to reduce cancer disparities and improve health.



Learn more about the Lurie Cancer Center’s patient care, services and programs, research and education, clinical trials, and faculty at [cancer.northwestern.edu](https://cancer.northwestern.edu).

