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THE PHILANTHROPIST



Generous Donors Empower Us to Improve Human Health

By investing in our talented physicians, scientists, students, and trainees at Northwestern University Feinberg School of Medicine, you are supporting the people who ultimately make a difference in the lives of patients and families in Chicago and across the globe. You are providing essential resources to investigators who are exploring new ideas, testing novel therapies, and translating findings to help people suffering from neurodegenerative diseases, cancers, and other challenging health conditions. You are also making it possible for bright and ambitious students to pursue their dreams of becoming physicians and scientists. Your gifts truly push forward our mission to impact the practice of medicine through discovery and education. Thank you for so generously partnering with us to improve human health.

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Renewing a Legacy:

Les Turner ALS Foundation Commits \$10 Million to Enhance ALS Research and Care

n August, the Les Turner ALS Foundation signed a 10-year, \$10 million gift agreement with Northwestern University Feinberg School of Medicine, reaffirming its belief in and partnership with the medical school's world-class physician-scientists striving for a cure for amyotrophic lateral sclerosis, or ALS.

"The scientists at the Les Turner ALS Center at Northwestern Medicine bring extraordinary talent, curiosity, and compassion to their research," said Laura Freveletti, chief executive officer of the Les Turner ALS Foundation. "We're thrilled to continue this partnership because they are making progress in revealing the causes of this disease and finding new treatment pathways, and they are bringing hope to everyone who dreams of seeing a world free of ALS."

ALS, also known as Lou Gehrig's disease, affects about 350,000 people worldwide, with an average survival rate of three years. The degeneration of nerve cells leads to muscle weakness and impaired speaking, swallowing, and breathing, eventually causing paralysis and death. Currently, there is no cure.

The pledge, which will support numerous innovative studies into the neurological disease over the next decade, marks the continuation of a long and productive history between the Les Turner ALS Foundation and Feinberg. The medical school became the first to host a devoted ALS research team in the 1970s, when friends and family of the late Les Turner, diagnosed with ALS at the age of 36, approached Northwestern with \$50,000 to improve research and resources for patients with ALS and their families. The school matched this donation.

Today, the Les Turner ALS Center at Northwestern Medicine provides a robust hub for this mission. The school's physicians and scientists pursue novel investigations into the disease, offer life-enhancing treatments through its Lois Insolia ALS Clinic, and educate the next generation of ALS specialists.

Harvey Gaffen, founder and chair emeritus of the Les Turner ALS Foundation, championed the work and vision of the Les Turner ALS Center made possible through the partnership with the Foundation.

"I am extremely proud of the continuation of our 45-year partnership with Northwestern," Mr. Gaffen said. "The Les Turner ALS Foundation's special relationship with Northwestern has always been built on shared values. They have never wavered from their commitment to making our cause their cause."

He also was Mr. Turner's brother-in-law and best friend and part of the fundraising group establishing Northwestern's ALS program.

The Foundation has been a steadfast sponsor of ALS research at Northwestern in addition to its long-term pledges. In 2024, it awarded more than \$1 million in research grants and clinic and endowment support to the Les Turner ALS Center. Nine research projects benefited from the support, including lines of study originating from earlier Foundation grants. These include studies into the connection between the immune system and ALS and studies of stem cells to better understand the drivers behind the disease.

"The scientists at the Les Turner ALS Center at Northwestern Medicine bring extraordinary talent, curiosity, and compassion to their research ... they are bringing hope to everyone who dreams of seeing a world free of ALS."

 Laura Freveletti, chief executive officer of the Les Turner ALS Foundation.

from the laboratory of

Evangelos Kiskinis, PhD, associate professor of

Neurology in the Division of Neuromuscular Disease.

> LES TURNER ALS FOUNDATION

The Lois Insolia ALS Clinic at the Les Turner ALS Center offers total care and support for people with ALS, their families, and their caregivers. The center is staffed by a multidisciplinary team led by Senda Ajroud-Driss, MD, the Les Turner ALS Foundation/Herbert C. Wenske Professor of Neurology. Dr. Ajroud-Driss's leadership has seen more than 14 clinical trials launch over the past five years.

In the fall, the annual Les Turner Symposium on ALS draws foremost experts from around the world to Northwestern's Chicago campus to discuss the landscape of research and care. Hundreds of scientists, patients, and advocates attend the symposium, led by symposium chair Hande Ozdinler, PhD, associate professor of Neurology. This year's symposium is on November 4.

"The Les Turner ALS Foundation's gift is both a heartfelt and strategic endorsement of our renowned ALS program. We are forever grateful for the Foundation's enduring partnership and are optimistic about the future of research into this terrible disease. Together, we will find a cure," said Robert G. Kalb, MD, director of the Les Turner ALS Center at Northwestern and the Joan and Paul Rubschlager Professor of Neurology.

For more information about supporting the Ken & Ruth Davee Department of Neurology, please contact Andrew Christopherson at andrew.christopherson@northwestern.edu or 312-503-3080.

Remembering Ann Lurie

Ann Lurie, a visionary donor, Northwestern University Trustee, and humanitarian, passed away on June 24, 2024, at 79. We remember her legacy at Northwestern and profound impact upon medical research and patient care in Chicago and globally.

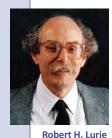


1973

Nurse at Children's Memorial Hospital

1990

Ann Lurie worked as a pediatric intensive care nurse at Children's Memorial Hospital, known today as the Ann & Robert H. Lurie Children's Hospital of Chicago.



In Memoriam: Robert H. Lurie

Ann Lurie's husband, Robert Lurie, was diagnosed with advanced colon cancer in 1987. He passed away on June 20, 1990, two and a half years after his initial diagnosis. In appreciation of the exceptional care he received, the Luries decided in early 1990 to endow the cancer center with the goal of providing the best care to patients and their families. The endowment provided resources to invest in faculty, research, and education to prepare the next generation of scientists and clinicians.

1991

Robert H. Lurie Comprehensive Cancer Center of Northwestern University

The cancer center was dedicated in 1991 to Robert H. Lurie through an endowment from Ann and Robert H. Lurie. The full name was adopted in 1997 when the cancer center was awarded the National Cancer Institute's highly competitive "comprehensive" designation for its dedication to the highest standards of cancer research, patient care, education, and community outreach.

1997

Diana, Princess of Wales Professorship in Cancer Research

This professorship was established in Princess Diana's name to commemorate her visit to the Lurie Cancer Center in 1996 as well as her keen interest in cancer research and the care of cancer sufferers. Today, Daniela E. Matei, MD, chief of Reproductive Science in Medicine in the Department of Obstetrics and Gynecology, holds this professorship.

Jesse, Sara, Andrew, Abigail, Benjamin and Elizabeth Lurie Professorship of Oncology

Established in 1997, this professorship was renamed in 2002 when Leonidas C. Platanias, MD, PhD, was named to the professorship. Dr. Platanias became director of the Lurie Cancer Center in 2014.



2007

Ann & Robert H. Lurie Children's Hospital of Chicago

Ann Lurie made a \$100 million gift, the largest in Children's Memorial Hospital's history, in 2007 to help fund construction of the new hospital. The gift remains the largest gift in its 142-year history. Today, Lurie Children's Hospital is Illinois' only freestanding hospital exclusively for children, offering patients access to world-class care in a modern, kid-friendly environment. It is Northwestern University Feinberg School of Medicine's hospital affiliate for pediatric care and research.

2009

Board of Directors of the Foundation for the National Institutes of Health

Jimmy and Rosalynn Carter Humanitarian Award from the National Foundation for Infectious Diseases

2021

Ann Lurie Professorship in Hematology and Oncology A new professorship honoring Ann Lurie will support the next Chief of Hematology and

A new professorship honoring Ann Lurie will support the next Chief of Hematology and Oncology in the Department of Medicine at Feinberg.

Life Trustee at Northwestern University

Ann Lurie made a tremendous mark upon the medical field worldwide, and the impact of her philanthropy will be felt for generations. We at Northwestern University Feinberg School of Medicine extend our profound gratitude to Ms. Lurie and our deepest condolences to her family.

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Read more about Ann Lurie's legacy at Northwestern and around the world "Humanity has lost one of the greatest philanthropists of all time. Ann Lurie was a remarkable human being who was dedicated to reducing human suffering from cancer and other diseases across the globe. Because of her advocacy and generosity many lives have been saved from cancer and the impact will be felt for years to come."

 Leonidas Platanias, MD, PhD, director of the Lurie Cancer Center and the Jesse, Sara, Andrew, Abigail, Benjamin and Elizabeth Lurie Professor of Oncology



Dr. Platanias and Lurie in 2014 at the 21st Annual Cancer Survivors' Celebration Walk & 5K in Chicago's Grant Park

"Ann Lurie's legacy is a testament to the enduring power of generosity and the profound change it can spark in medical innovation and compassionate care. We are honored to be able to continue this legacy through the new endowed chair in her name."

-Eric G. Neilson, MD, Lewis Landsberg Dean and Vice President for Medical Affairs



Dean Neilson, Lurie, and Northwestern University president emeritus Henry Bienen, PhD, at a 2021 dinner commemorating the 30th anniversary of the cancer center





Revered Ophthalmologist Memorialized with Gift to Support Lymphoma Research

Debbie Gersh and her husband, the late Dr. Schroeder

Robert Schroeder '78, MD, of Winnetka, Illinois, was a beloved leader, educator, and practitioner in the field of ophthalmology at Northwestern University Feinberg School of Medicine, known for his retina expertise and his pioneering in the field of ocular oncology.

When he passed away in 2021 due to complications from COVID-19, made worse because of a prior lymphoma diagnosis, his Northwestern colleagues remembered him for his heartfelt impact on medical trainees' careers and for his stoic demeanor that prevailed against adversity.

"I called him my metronome. He just had this remarkable evenness," said Deborah "Debbie" Gersh '80, who met Dr. Schroeder while they were undergraduates at Northwestern. They married in 1984.

Many who knew Dr. Schroeder professionally might have been surprised to learn of his adventurous spirit, Debbie said. He went on extreme bike trips across the mountains of Portugal, heli-skied the slopes of Colorado, and flew small planes across the US. In fact, it was his diagnosis of lymphoma in 2015 that spurred him to obtain his pilot's license.

"Debbie's gift is a beautiful tribute to Bob that will benefit innumerable patients with lymphoma for years to come."

> Dr. Leo Gordon, director of Lymphoma Program at Lurie Cancer Center

"It was just something he always wanted to do. When he got into something, he knew it top to bottom, just like skiing. He went all in," she said.

To fuel research into the cancer that marked her beloved husband's final years — but didn't stop him from following his dreams — Debbie made a \$1 million commitment to lymphoma research in his memory. The commitment will support an endowed innovation research fund in lymphoma, an expendable research fund in lymphoma, and an endowed lectureship in lymphoma at the Robert H. Lurie Comprehensive Cancer Center.

At the same time, Debbie made a separate gift to help establish the Robert P. Schroeder, MD Retina Fellowship in the Department of Ophthalmology. Many other faculty members and trainees in the department helped fundraise for this special fund honoring one of his greatest passions.

Dr. Schroeder truly loved teaching, she said. In 1988, he joined the Ophthalmology faculty at Northwestern, where he became one of only a handful of ophthalmologists in the country with expertise in choroidal melanomas and later played an integral role in leading the Vitreoretinal Fellowship program. He served as a principal investigator and co-investigator in National Institutes of Health clinical trials and wrote and contributed to many peer-reviewed publications.



Dr. Schroeder is also survived by two children, Jonathan and Julia. Jonathan, Debbie said, embodies the entrepreneurial spirit of his father in supporting and advising small businesses. And, following in her father's footsteps, his daughter, Julia, is a resident at the University of California, San Francisco.

Using Nanotechnology to Target Lymphoma

Leo Gordon, MD, the Abby and John Friend Professor of Cancer Research and professor of Medicine in the Division of Hematology and Oncology, heads the lymphoma research to which Debbie made her generous gift.

Dr. Gordon served as Dr. Schroeder's oncologist, and Debbie said her intention is for Dr. Gordon to allocate the funds toward projects that need it most. "I really adore him," she said of Dr. Gordon. "I trust him implicitly."



Dr. Gordon

Dr. Gordon's team is leading exciting investigations into translational uses of nanotechnology to treat lymphoma. Specifically, the scientists are looking at a novel method of influencing cholesterol metabolism and inducing ferroptosis — a method of causing cell death using lipid nanoparticles as a therapeutic strategy.

Debbie's gift is providing vital resources for this

research until it can obtain federal funding. This private support has already helped the scientists secure three other grants related to the topic and publish several manuscripts. Her gift has also supported mentees in Dr. Gordon's lab, including Adam Lin, MD, PhD, assistant professor of Medicine in the Division of Hematology and Oncology.

"Debbie's gift is a beautiful tribute to Bob that will benefit innumerable patients with lymphoma for years to come," said Dr. Gordon, who is also the director of the Lymphoma Program at Lurie Cancer Center. "We are working hard to improve treatments and eventually find cures, and her philanthropy will go a long way toward realizing our goals."

For more information about supporting cancer research, please contact Terri Dillon at terri-dillon@northwestern.edu or 312-503-4837.



Dr. Schroeder obtained his pilot's license and took up flying after his diagnosis of lymphoma in 2015.

ALPINIST'S PHILANTHROPY TAKES LEUKEMIA RESEARCH TO NEW HEIGHTS

"Alex's gift stands to help many innovative projects advance to the next stage of funding and discovery. Over time, a single, bold idea can eventually transform the landscape of leukemia research and care. Thanks to him, our odds are better that we can vastly improve therapies for patients with leukemia," said Leon Platanias, MD, director of Lurie Cancer Center and the Jesse, Sara, Andrew, Abigail, Benjamin and Elizabeth Lurie Professor of Oncology.

Mr. Pancoe, who is a financial adviser by day, has been fundraising for the Ann & Robert H. Lurie Children's Hospital of Chicago, where he was treated for a brain tumor in 2005, through extreme mountain climbs all around the world. Among other feats, he completed the "Explorer's Grand Slam," a challenge to ski the North and South Poles and ascend the tallest mountain on each of the seven continents.

The Pancoe Legacy

Mr. Pancoe's philanthropic inclinations follow in the footsteps of his late grandfather, Arthur "Art" Pancoe '51 MS, an esteemed Northwestern philanthropist and community member whose generosity made an impression on Alex as he came of age. Art Pancoe's philanthropy made a tremendous impact upon Northwestern University, and he is perhaps best known for his gifts supporting the creation of the Arthur and Gladys Pancoe-NorthShore University HealthSystem Life Sciences Pavilion on the Evanston campus.

Alex Pancoe's support for leukemia research stems not only from his own diagnosis, but from a cousin's fatal bout with acute myelogenous leukemia. Beth Pancoe passed away from the disease in 1999, after two years of study at Northwestern, leading Art Pancoe and his late wife, Gladys, to dedicate the Life Sciences Pavilion to their granddaughter's memory. To direct the Pancoe Translational Innovation Initiative in Leukemia, Mr. Pancoe has partnered with Drs. Platanias and Altman. He has been acquainted with both physician-scientists through his volunteerism at Lurie Cancer Center, but he became a patient of Dr. Altman after his leukemia diagnosis. When he came under Dr. Altman's care, he said, she led his appointment with a promise: that he would be mountaineering again soon.

"What I really like about working with her is, for me, surviving is not enough. I need to be able to do the things I love. She's very, very receptive to that," Mr. Pancoe said.

Sure enough, he hit the slopes twice again this year: Peak 11,300 in the Ruth Gorge of Denali National Park and Preserve in Alaska, and the North Ridge of Mount Baker in the Cascade Mountain Range in Washington state.

With tyrosine kinase inhibitor (TKI) treatment and care from Dr. Altman, Mr. Pancoe's leukemia symptoms mostly present as fatigue. He said he remains optimistic about the year to come, as he and his wife, Nina, along with their son, Zephyr, plan to welcome their second child. He also remains an active member of the Associate Board of Lurie Cancer Center, much as his grandfather, Art, had been a longtime member of the Friends of Lurie Cancer Center Advisory Board until he passed away.

"Our leukemia team strives to help patients quickly and safely get back to doing the things they love. While every patient is different, by listening to Alex's goals and concerns, we were fortunate to develop a treatment plan compatible with his passions," Dr. Altman said. "I am honored to help care for Alex as his doctor and am very grateful for his support. I am excited about what we will be able to accomplish at the cancer center thanks to his philanthropy."

For more information about supporting Lurie Cancer Center, please contact Nicole Langert at nicole.langert@northwestern.edu or 312-503-1656.



Mr. Pancoe, his wife, Nina, and son, Zephyr Photo: Jack Jeffries

Mr. Pancoe descends from the summit of Peak 11,300 in Denali National Park in spring 2024. Photo: Clay Knox

n a fall day in 2022, Alex Pancoe '09, of Glencoe, Illinois, was about an hour short of cresting the summit of Ama Dablam, a 22,000-foot mountain in the Nepalese Himalayas, when a wave of weakness struck him.

He was extremely hypoxic, even though he was well-accustomed to the lower oxygen levels found at high altitudes. He knew something was off, so made the difficult decision to cut short his expedition.

A couple of months later, he was diagnosed with chronic myeloid leukemia at the Robert H. Lurie Comprehensive Cancer Center of Northwestern University. Undeterred, he and his physician, Jessica Altman, MD, director of the cancer center's acute leukemia program and professor of Medicine at Northwestern University Feinberg School of Medicine, set a treatment course that allowed him to get back to climbing.

"I have been very fortunate to be able to do the things I love," Mr. Pancoe said. "Above all else, I really prioritize experiences and giving back. Those are kind of the two things that are most important to me in life."

Less than a year after receiving his diagnosis, Mr. Pancoe made a \$1 million gift through the Arthur and Gladys Pancoe Foundation to establish the Pancoe Translational Innovation Initiative in Leukemia. The program will fund translational research projects in leukemia, as well as bench-to-bedside research and reverse biomarker studies in clinical trials. Ultimately, Mr. Pancoe's support will help to develop new cancer therapeutics.



Friends of Prentice's Support for Maternal-Fetal Medicine Helps Bridge the Women's Health Gap

Dr. Yee, Dr. Bulun, and Stephanie Fisher, MD, MPH, assistant professor of Obstetrics and Gynecology in the Division of Maternal-Fetal Medicine, at Friends of Prentice's annual Celebrate with Friends event in September 2023

"We're friends first we're nothing without the friends," she said. "We've created a great Friends of Prentice family."

- Executive Director Kristen Field

aternal health has long been a tough sell in medical research — an oversight that has led to widespread health inequities for pregnant women and their children, said Lynn Yee, MD, MPH, associate chief for Research in the Division of Maternal-Fetal Medicine at Northwestern University Feinberg School of Medicine.

Many women experience health problems before, during, and after pregnancy that could potentially be prevented or treated with knowledge gained through scientific study. Even as one of the wealthiest countries on the planet, the US ranks 55th in the world for maternal mortality — the worst of any developed nation — according to a 2020 World Health Organization (WHO) report.

In 2019, faculty members in the Division of Maternal-Fetal Medicine sought funding for research into a variety of maternal health issues.



Friends of Prentice, a longtime and steadfast philanthropic partner, answered the call and in 2020 awarded the scientists \$250,000 pledged over five years.

"We believe strongly in closing this gap in women's health. What we also believe in is supporting our physicians and scientists who are really addressing these questions," said Kristen Field, executive director of the organization, which provides vital funds to leading scientists affiliated with Northwestern Medicine Prentice Women's Hospital.

> Friends of Prentice was established in 1985 to advance women's health through emerging technologies and medical advancements. Since its inception, it has raised more than \$25 million for Feinberg physician-scientists at the forefront of these discoveries.

The five-year pledge awarded in 2020 supports Northwestern research conducted as part of the Maternal Fetal Medicine Units (MFMU) Network, a group of 12 leading medical centers of which Feinberg has been a proud member since 2001. It is sponsored by the National Institute of Child Health and Human Development.

Through the MFMU Network, scientists from across the country work together to perform multicenter clinical trials and publish research that has defined much of the current national practice in maternal-fetal medicine. These findings are published in leading journals every year.

Dr. Yee is principal investigator of the Maternal Fetal Medicine Units Network at Northwestern. In this role, she has a pivotal seat at the table in deciding what kinds of obstetric research occurs in the US over the next decade.

Friends of Prentice's gift has enabled several research projects, especially supporting the hiring of study staff and recruiting study participants, said Dr. Yee, who is also the Thomas J. Watkins Memorial Professor of Obstetrics and Gynecology.

"We could not have pursued these important projects at this scale without support from Friends of Prentice," Dr. Yee said. "Clinical trials that will truly make a difference in improving maternal and child health require a massive amount of infrastructure, which is often not covered by federal grants. Philanthropy like the support from Friends of Prentice is critical to bringing our ideas to life."

Thanks to Friends of Prentice, investigators at Northwestern are studying the long-term effects of a COVID-19 diagnosis during pregnancy. In July 2024, they launched a study into child development after the children's mothers received COVID-19 vaccines during pregnancy. The scientists are also in the recruitment stage for research into whether the use of continuous positive airway pressure (CPAP) for pregnant people with obstructive sleep apnea improves birth outcomes.

As with many early-stage projects given a boost through private philanthropy, Friends of Prentice's pledge helped Feinberg scientists obtain a sizeable grant from the National Institutes of Health (NIH) to join the Environmental Influences on Child Health Outcomes (ECHO) Consortium. In January 2024, the scientists formed an ECHO pregnancy cohort through which they are studying perinatal and early childhood environmental, social, medical, and other exposures' impact on long-term maternal and child health.

Institute for Pregnancy Research

The Friends of Prentice pledge comes during an exciting period for the Department of Obstetrics and Gynecology. Nationwide, the department is consistently ranked in the top 3 for NIH research funding and in the top 10 for medical school OBGYN programs by *U.S. News and World Report*. To build on its leadership position, the department plans to centralize and amplify the expertise of its faculty through the creation of an institute dedicated to pregnancy research.

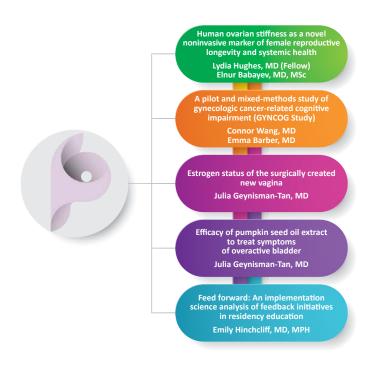
The new institute will serve as a hub for bench-to-bedside-to-community maternal fetal health studies with the goal of forming a research base that addresses all stages of a person's pregnancy, from conception through delivery and post-delivery, and in-between pregnancies. The institute will be well-equipped to cement Northwestern's stature as a world leader in advanced care for high-risk pregnancies, thanks to its position at the nexus of the medical school and the Northwestern Medicine healthcare system.

The department has strong philanthropic momentum but requires substantial support as it vies to become a global leader by way of the new Institute for Pregnancy Research, said Serdar Bulun, MD, chair and the John J. Sciarra Professor in the Department of Obstetrics and Gynecology.

"Our new Institute for Pregnancy Research will bring our department's experts together in a focused effort to improve research into maternal health," Dr. Bulun said. "Regrettably, this area has often been ignored and lacks funding in the medical research field. We are excited about what the institute can achieve and its role in addressing these gaps on a global scale." For more information, please contact Mary Kreller at mary.kreller@northwestern.edu or 312-503-0742.

2024 FRIENDS OF PRENTICE GRANTS

In addition to funding MFMU research at Northwestern, Friends of Prentice awarded five Northwestern scientists advancing women's health research.





Friends of Prentice board members at their May 2024 meeting

HISTORY OF FRIENDS OF PRENTICE

Friends of Prentice was established in 1985 by renowned Chicago philanthropist Carol Lavin Bernick, who had been a patient at what would become Northwestern Medicine Prentice Women's Hospital.

Ms. Lavin Bernick wanted to give back to the hospital that had cared for her so well during the birth of her daughter. Friends of Prentice gave men and women, young professionals and renowned doctors, and people of all ages and backgrounds a platform to support Northwestern research benefiting women's health. To date, Friends of Prentice has awarded grants to more than 150 scientists.

The organization is gearing up to celebrate its 40th anniversary. Executive Director Kristen Field said she has seen the field grow since she joined the organization in 2019 and noted that much progress was made in part thanks to the organization's long history of advocacy and fundraising.

"It's been really great to watch the growth in emphasis on maternal-fetal medicine, as well as bring in some of the most incredible physicians and scientists and see the representation of maternal-fetal medicine doctors better represent the patients that they're seeing," she said.

She added that she credits Friends of Prentice's success to the vibrancy of its community.

"We're friends first — we're nothing without the friends," she said. "We've created a great Friends of Prentice family."

Gift Uplifts Research into Mitochondrial Regeneration for Precision Vascular Health

Fluorescent lab images show mitochondrial donor cells (mesenchymal stem cells, green) interacting with recipient cells (vascular endothelial cells, red). The green color in donor cells is from mitochondria expressing green fluorescence protein (GFP), which can be seen entering some recipient endothelial cells.



Dr. Jiang at the state-of-the-art Louis A. Simpson and Kimberly K. Querrey Biomedical Research Center, where her lab is located

in Jiang, PhD, an assistant professor of Surgery and Biomedical Engineering at Northwestern University Feinberg School of Medicine and McCormick School of Engineering, respectively, is blazing trails in precision medicine through novel efforts to transplant healthy mitochondria into compromised cells.

Mitochondria, a vital cell organelle responsible for energy production, can become dysfunctional under the stress of various diseases. Reversing this dysfunction through mitochondrial regeneration holds potential as a future therapeutic solution for patients.

A vascular bioengineer, Dr. Jiang recently ventured into mitochondrial research, building upon her extensive background in vascular tissue engineering and regenerative medicine for over a decade. She has carved a niche research area for herself in the study of regenerative engineering solutions, including therapeutic delivery of other molecules and structures.

When she came upon a scientific illustration of mitochondria migrating from one cell to another in 2021, she was intrigued by the possibilities and set to work studying methods to repair and regenerate mitochondria within vascular cells and blood vessels.

"The field of mitochondrial delivery, though new to me, captured my interest due to its fascinating potential," Dr. Jiang said.

Since then, the Jiang Laboratory has been dedicated to pioneering targeted mitochondrial delivery systems (MDS) for vascular interventions. Yet, to get this innovative therapeutic into the clinic, Dr. Jiang and her team face challenges including the uncontrolled distribution of mitochondria, cell uptake efficiency, and the potential loss of mitochondrial function during transfer.

Funding Bold Ideas to Change Lives

To boost Dr. Jiang's new and promising research, the Bachrach Family Foundation, led by Ed Bachrach '70, gifted her and her team with funds that have already helped her to obtain meaningful data and attract federal funding. They have successfully isolated mitochondria from stem cells, coated their surfaces with target-binding peptides, and demonstrated that these mitochondria can now recognize specific proteins for targeted binding. Additionally, they have developed biodegradable hydrogels designed to deliver stem cells as mitochondria donors.

Mr. Bachrach, the retired chairman and chief executive officer of Bachrach Clothing Inc., was inspired by Dr. Jiang's bold ideas that have the potential to change the lives of patients with vascular disease.

"That is an area that cries out for that need," Mr. Bachrach said. "I know so many people with heart disease, and that's the one of the leading pathologies worldwide. If her research can help with that, I mean, it's a great target."

Mr. Bachrach graduated from Northwestern University with a bachelor's degree in business administration and from Harvard Kennedy School with a master's degree in public administration. Through the Bachrach Family Foundation, he is making an impact by funding ambitious early career investigators, like Dr. Jiang. Mr. Bachrach also praised Dr. Jiang for her aptitude for communicating complex ideas to scientists and nonscientists alike.

"I am incredibly grateful for Ed's support and trust," Dr. Jiang said. "When I first conceived the idea and applied for various grant mechanisms, including those from internal and external foundations, I faced significant skepticism due to the novelty of the idea and the lack of preliminary evidence. Now, my research into mitochondrial transplantation is part of a rapidly growing field and stands to benefit patients with vascular diseases, such as peripheral artery disease and aneurysms."

At Feinberg, Dr. Jiang is spearheading this area of research, which has seen a surge of academic interest worldwide. At the Tissue Engineering and Regenerative Medicine International Society World Congress in June 2024, a dedicated research session underscored the growing interest and progress in mitochondrial transplantation. And, high-impact publications such as *Nature* are increasingly focusing on both basic science and clinical applications, highlighting its potential.

"We are proud to be one of the pioneering bioengineering teams contributing to this exciting and evolving field," Dr. Jiang said.

For more information about supporting vascular research, please contact Terri Dillon at terri-dillon@northwestern.edu or 312-503-4837.

UPCOMING EVENTS

17th Annual Robert J. Havey, MD Institute for Global Health Benefit Dinner

September 25, The Peninsula Hotel Chicago Info: Jenn Burke at 312-503-4635, jennifer.burke@northwestern.edu

Landsberg Society, Late Night Morning Report September 26, InterContinental Chicago Magnificent Mile Hotel Info: Babette Henderson at 312-503-0855, babette.henderson@northwestern.edu

The Harold E. Eisenberg Foundation 25th Anniversary Dinner October 17, Hilton Chicago

Info: Nicole Langert at 312-503-1656, nicole.langert@northwestern.edu

Retina Alumni Reception

October 17, Prentice Women's Hospital Info: Andrew Christopherson at 312-503-3080, andrew.christopherson@northwestern.edu Lynn Sage Breast Cancer Foundation: An Evening of Hope in our Fight against Breast Cancer October 24, Theater on the Lake, Chicago Info: Nicole Langert at 312-503-1656, nicole.langert@northwestern.edu

Les Turner Symposium on ALS

November 4, Feinberg Pavilion, Chicago Info: Andrew Christopherson at 312-503-3080, andrew.christopherson@northwestern.edu

All in for ALS Casino Night

November 23, East Bank Club, Chicago Info: Andrew Christopherson at 312-503-3080, andrew.christopherson@northwestern.edu

Alumni Weekend 2025

May 2–3, Northwestern University, Chicago Info: Babette Henderson at 312-503-0855, babette.henderson@northwestern.edu



Alumna's Bequest Seals Passion for Helping Students Class of 1974 Scholarship and Council of One Hundred Internship Grant to Benefit

Dr. Typlin delivers remarks at the annual Commitment to Scholarships luncheon at the Ritz-Carlton, Chicago, in October 2023.

When Bonnie Typlin, '74 MD, graduated from Northwestern University Feinberg School of Medicine in 1974, she was grateful to not be completely saddled with student loan debt, yet wary of the years ahead needed to pay back the remainder.

Her experience is a common one for aspiring doctors. Now, more than ever, Dr. Typlin said, medical students often face a mountain of debt in addition to the trials of training to become a physician. "Needless to say, I was unable to buy a home or do costly travel most of those years" [after graduation], she said.

To help others facing similar barriers, Dr. Typlin and her husband, John Kaiser, of Tucson, Arizona, made a bequest benefiting the Class of 1974 Scholarship and the Council of One Hundred (C100), a Northwestern Alumni Association group that helps female and nonbinary students and graduates build successful careers. Scholarships are a top priority for the medical school, and Dr. Typlin said she was inspired by others who have made outright or estate gifts to support them.

As a student, Dr. Typlin's scholarship gave her the financial break she needed to obtain her medical degree at Northwestern, where she had earned her bachelor's degree in biology from Weinberg College of Arts and Sciences. She went on to complete her residency at Nationwide Children's Hospital at The Ohio State University, then led a successful career as a pediatrician. Still, she recalled, she finally paid off her student loans at only a month shy of age 40. Dr. Typlin's planned gift follows a long history of supporting scholarships and students at Northwestern. For more than 30 years, Dr. Typlin has advocated for and donated to scholarships, and she is a founding member of the C100 established in 1993. She has also been an active member of the Medical Alumni Association, serving as president from 2007–2009.



The Class of 1974 Scholarship has been a passion project for Dr. Typlin, as she and her classmates began organizing to fundraise for the scholarship in the early 1990s. While it was challenging at first, she said, her classmates were

able to drum up enough

Dr. Typlin and her husband, Mr. Kaiser

support through phone calls and letters to forge ahead with the scholarship's inception.

"It's been a feel-good thing," she said of the hard work of her class, which this year celebrated its 50th reunion. "The response has been great, with many people giving annual donations to the scholarship."

Today, Feinberg's scholarship endowment amounts to \$251.2 million through outright and estate gifts, with the goal of reaching \$800 million. This has become a competitive necessity as other top institutions also aim to provide financial assistance to all students.



Dr. Typlin (bottom, second from left) and the Class of 1974 gathered for its 50th reunion dinner on April 20, 2024, during Alumni Weekend.

C100 Support

Dr. Typlin's bequest earmarked for the Council of One Hundred will benefit the Trailblazer Award administered through the Summer Internship Grant Program (SIGP). Through SIGP, awardees receive funds for unpaid summer internships to further their career exploration in the US and abroad.

Today, the awards amount to \$3,500 each to cover interns' living expenses including food and housing. The Council sponsors up to 25 female and nonbinary students each year.

"I feel as if this is a career opportunity that they would otherwise not have, and those career opportunities often get them jobs because they [then] have work experience," Dr. Typlin said. "That's why this program is so meaningful to me — because I know how hard it is to snare a job in your desired field."

While the C100 initially comprised 100 successful alums, today it is made up of 200, all of whom are nominated annually by the previous cohort and represent a wide range of graduation years, cities, and professional backgrounds. Together, the alums provide mentorship and networking opportunities to women and nonbinary students.

Dr. Typlin was involved with the group from the very beginning, when Northwestern University President Arnold Weber, PhD, became aware that women graduates were often having more trouble landing jobs than men and were less likely to come back to the University to attend alumni events, teach, donate, or otherwise get involved. "In some ways, women alums were a lost population," Dr. Typlin said.

So, President Weber brainstormed with others at the University and prominent alums, and ultimately created the council of 100 alumnae top executives from public, private, corporate, and nonprofit organizations — to connect with undergraduate seniors and recent female graduates to help launch their careers after graduation.

"It was another example of multi-generational, multidisciplinary Northwestern people who didn't know one another at first, but who over the years bonded into a very coalesced, successful group and have given a lot back to the University, not just financially, but also in terms of continuing education for young alums and mentoring people in jobs and other volunteer support," Dr. Typlin said.

For more information about supporting scholarships, please contact Larry Kuhn at larry-kuhn@northwestern.edu or 312-503-1717.

Our Community in Action

More than 325 friends and philanthropists attended this year's **Minds Matter** benefit dinner at The Hilton Chicago on May 10 hosted by the Lou and Jean Malnati Brain Tumor Institute (MBTI) at Lurie Cancer Center. At the fundraiser, attendees raised more than \$550,000 to support brain tumor research and patient care at MBTI, which sees more than 3,000 new brain tumor patients and performs more than 700 brain tumor surgeries every year.



Josh Van Swol (left) and his partner, Joe Stefani, participate in the live auction. Mr. Stefani is co-chair of the MBTI Advisory Council, and Mr. Van Swol is a member of the Advisory Council.



Left to right: Laura Jaros, MHA, program director of MBTI; James Chandler, MD, co-director of MBTI and the Lavin/Fates Professor of Neurological Surgery; Alexandra Jundt, DDS; and Roger Stupp, MD, co-director of MBTI and the Paul C. Bucy Professor of Neurological Surgery.

The Associate Board of Lurie Cancer Center on August 8 held its **third annual summer cocktail reception** at The Ivy Room at Tree Studios in Chicago. There, the board of young philanthropists awarded \$150,000 in grants to two faculty conducting novel cancer research at the Robert H. Lurie Comprehensive Cancer Center of Northwestern University.



Left to right: Leonidas Platanias, MD, PhD, director of Lurie Cancer Center and the Jesse, Sara, Andrew, Abigal, Benjamin and Elizabeth Lurie Professor of Oncology; Innovative Clinical Trial Award Scholar Shira Dinner, MD, associate professor of Medicine in the Division of Hematology and Oncology; Innovative Research Award Scholar Adam Lin, MD, PhD, assistant professor of Medicine in the Division of Hematology and Oncology; Jamey Maniscalco, PhD, Associate Board co-chair; and Louise Arnott Cardillo, JD, Associate Board co-chair.

More than 1,000 supporters and friends of The H Foundation came together on July 27 for the **22nd Annual Goombay Bash** at the Aon Grand Ballroom at Navy Pier. The H Foundation's Caribbean-themed event raised a record more than \$1.1 million to support basic science cancer research at Lurie Cancer Center.



Sue Nesbitt and Cortney Hausser (left) and John Rot and Dan Chopp (right), all members of The H Foundation, embrace while attendees celebrate a record-breaking \$1.1 million raised at this year's Goombay Bash.

More than 450 alumni and guests returned to Northwestern University Feinberg School of Medicine on April 18–20 for **Alumni Weekend 2024**. Throughout the weekend, attendees reconnected with former classmates, learned about the medical school's latest developments and achievements, and reminisced about their medical school experiences.



Alumni of the Class of 1999, celebrating their 25th reunion, at an April 20 reception for members of The Founders Society at the Arts Club of Chicago.



Medical scholars and scholarship supporters at the annual Commitment to Scholarship Luncheon on April 20 at the Peninsula Chicago Hotel.

INNOVATION SPOTLIGHT

Empowering Feinberg's Unsung Heroes

Each day, our faculty, students, and trainees at Feinberg dedicate time to innovative new ideas and programs that will move the needle in medicine and science. Here, we spotlight some of the exciting work that often happens behind the scenes and beyond daily clinical care.

Thank you to all of the donors who contribute to these efforts, now and in the future. Your philanthropy fuels these projects and programs enabling their very existence and empowering them to grow for the benefit of patients today and tomorrow.

Understanding the Neurogenetics of Autism and Schizophrenia

Peter Penzes, PhD, director of the Center for Autism and Neurodevelopment and the Ruth and Evelyn Dunbar Professor of Psychiatry and Behavioral Sciences, is leading innovative studies into conditions including autism and schizophrenia. Dr. Penzes studies the genetic causes of these conditions with the goal of developing effective drugs to treat them. Specifically, he aims to understand synaptic structural plasticity in the brain, a process underlying communication between neurons that is disrupted in many neurodevelopmental and neuropsychiatric disorders. Dr. Penzes and other Northwestern scientists also are recent recipients of a \$17 million grant from the National Institute of Mental Health's Silvio O. Conte Centers for Basic Neuroscience or Translational Mental Health Research. The grant will fund four separate research projects into autism and schizophrenia that Dr. Penzes will oversee.

Dr. Arun Sharma

Dr. Mohamed Abazeed

Regenerating Bladder Tissue in Urology Patients

Arun Sharma, PhD, research associate professor in the Department of Urology, studies methods of regenerating bladder tissue in lieu of surgical operation. Bladder augmentation enterocytoplasty, a widely adopted surgical practice for bladder dysfunction, poses short- and long-term issues but Dr. Sharma and his collaborators believe there is a better way to engineer urinary health. By combining elastomeric scaffolds with specific stem and progenitor cell populations, Dr. Sharma and his team are revolutionizing the field of urologic regenerative medicine and tissue engineering using nano- and bioinspired materials. In a recent two-year study, published in Proceedings of the National Academy of Sciences (PNAS) Nexus, his team successfully regenerated bladder tissue in baboons. The next phase of this important research is to move to clinical trials to decipher how these findings operate in humans.

For more information on supporting the efforts above, contact Mary Kreller at 312-503-0742 or mary.kreller@northwestern.edu.

For more information on supporting the efforts above, contact Terri Dillon at 312-503-4837 or terri-dillon@northwestern.edu.

Harnessing AI to Detect Congenital **Anomalies in Babies**

Fizan Abdullah, MD, PhD, director of the Center for Global Surgery at the Robert J. Havey, MD Institute for Global Health, developed a mobile application that uses artificial intelligence to detect congenital anomalies in babies. The application acquires demographic information, GPS location, and photographs of untreated anomalies in children and adults. Dr. Abdullah and his team hope that further development of this app will make it widely accessible and user-friendly, leading to a greater number of communities to partner with and a larger number of healthcare professionals who are trained to utilize the application. Expanding the use of the app will allow a substantial number of patients to obtain critical operations, mitigating lifelong challenges for affected individuals. Dr. Abdullah's research will profoundly impact low-and middle-income countries that are disproportionately affected by anomalies that occur in intrauterine development.

Improving Cancer Clinical Trials and Treatments with AI

Mohamed Abazeed, MD, PhD, an associate professor in the Department of Radiation Oncology, is studying the uses of artificial intelligence to personalize cancer care. Dr. Abazeed and his team of biologists and computer scientists are focused on developing new technologies that make cancer treatments more precise. He is confident that an emphasis on AI and innovative technologies that use machines will lead to more accurate methods of treatment and shared information capabilities that will benefit cancer patients in the Chicago area and beyond. Currently, Dr. Abazeed is testing new AI technologies for patients with lung cancer in clinical trials, with the goal of providing physicians with novel augmented intelligence capabilities.

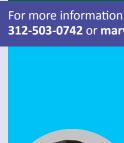
For more information on supporting the efforts above, contact Jenn Burke at 312-503-4635 or jennifer.burke@northwestern.edu.

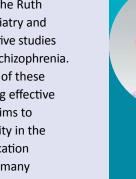
For more information on supporting the efforts above, contact Nicole Langert at 312-503-1656 or nicole.langert@northwestern.edu.

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THE PHILANTHROPIST

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Cover photo: First-year medical students don their white coats for the first time during a Founders' Day ceremony in August 2024.

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