



AT THE FOREFRONT OF **KIDS** MEDICINE™

UChicago Medicine

Comer Children's

Comer Children's researchers, doctors, and staff want to give all kids the opportunity to thrive. New research and approaches to patient care have led to innovative cancer treatments and faster cures. Our multidisciplinary approach tailors treatment plans to each patient, who often have access to clinical trials years before they become widely available elsewhere.

COMER CHILDREN'S:



Provides the most uncompensated pediatric care in Illinois



Consistently ranks in the top ten for highly selective National Institutes of Health grant support per researcher



Has a lead role in Children's Oncology Group, the world's largest dedicated childhood cancer research initiative



Researchers at UChicago found the genetic basis of cancer, sparking the current revolution in personalized care



UChicago Scientists pioneered chemotherapy, bone marrow and stem cell transplants, and hormonal therapy as cancer treatments



Currently offers more than 80 clinical trials for pediatric cancer care

AT THE FOREFRONT OF CANCER CARE AND RESEARCH:

Currently, our physician-scientists are conducting research to:

- » Link genomic and clinical data to improve outcomes for neuroblastoma, a common cancer in infants and toddlers
- » Use advanced DNA sequencing strategies to guide treatment decisions for currently incurable pediatric tumors
- » Understand the key mechanisms of malignant transformation in leukemia
- » Develop a new class of molecularly engineered drugs that encourage anti-tumor immune responses to kill cancer
- » Create more personalized and less toxic treatment approaches using genetic data from drug-resistant pediatric tumors and drug response data from more than 100 chemotherapies
- » Develop stem cell transplant techniques for the 70 percent of children who do not have a sibling match, making transplant an option for any child
- » Explore therapies for solid tumors based on the UChicago discovery that specific gut bacteria, when combined with an immune-boosting drug, nearly abolished tumor outgrowth in mice

OFFERING THE LATEST CANCER THERAPIES

Our physicians continually investigate, develop, and discover new treatments for childhood cancers.

» **We are the only pediatric hospital in the region offering CAR T-cell therapy to treat acute lymphoblastic leukemia, the most common pediatric cancer.**

Some children respond to standard treatment, which puts leukemia in remission. However, 20 percent of children relapse after treatment. CAR T-cell therapy allows scientists to reprogram the patient's own disease-fighting white blood cells (T-cells) to seek out and attack cancer cells, thereby using the body's own immune system to fight cancer. Since this revolutionary experimental treatment has been offered, signs of cancer have disappeared in the majority of cases, and patients continue to be in remission.

» **We are the only medical center in Illinois to offer a powerful radiation treatment targeting the deadliest pediatric cancers.**

Called I131-MIBG, this leading-edge therapy is one step in a complex treatment plan for children with relapsed or difficult-to-treat neuroblastoma, a cancer commonly found in the adrenal glands.

PHILANTHROPY IN ACTION: Projects Fueled by Gifts at Comer Children's

Little Patients, Big Data

What if researchers had access to troves of published research and unidentifiable patient information from all over the world in one place? What if they could easily search and analyze that data to find patterns between certain cancers and patient outcomes? The answer: it would accelerate the rate of discovery and the personalization of cancer treatments.

Comer Children's is building a tool that does this called the Pediatric Cancer Data Commons (PCDC). It allows researchers to quickly analyze big data from multiple pediatric cancer databases using a cloud-based platform, amplifying the efforts of researchers and doctors around the world. In turn, researchers contribute their data to increase the quantity of data available.

Transforming Care for Adolescents and Young Adults

The disruption of a cancer diagnosis can be devastating, particularly for adolescents and young adults (AYA) who are just beginning their independence. Our AYA Oncology Program empowers this unique age group to play an active role in their care, from diagnosis to treatment and beyond. Comer Children's also provides evidence-based psychosocial supports designed specifically for young adults, including meditation, peer mentoring, and survivorship support to assist in navigating post-treatment challenges.

In 2000, our researchers made the discovery that AYA patients with acute lymphoblastic leukemia (ALL) achieved much better outcomes with higher intensity pediatric treatments, rather than adult therapies. This discovery has since defined a new nationwide standard of treatment for this population. Today, our AYA Oncology Program continues to pioneer new, personalized approaches for this unique population.

ROOTED IN COMMUNITY; SERVING PATIENTS GLOBALLY

Our promise to make the world a better place for every child begins in our own community: the South Side of Chicago. Our mission would not be possible without the support of countless dedicated donors. Contributions allow for this important work—enabling research, providing the most advanced health care, and improving the lives of countless children—in the City of Chicago and around the world.

WITH YOUR PARTNERSHIP & SUPPORT: CANCER RESEARCH AT COMER CHILDREN'S

Nearly 80 percent of children diagnosed with cancer become long-term survivors, and the majority of them are considered cured. Fifty years ago, less than 10 percent of childhood cancer patients could be cured.

Biomedical research leads to the development of the most advanced treatment options, and investments in research are what has enabled the incredible success in this field. However, competition for funding is extremely competitive. Federal support—the largest single funding stream for biomedical research—has declined in real terms over the past decade. Meanwhile, applications for NIH funding has nearly doubled, making competition for this funding even stiffer. Generous financial support from individuals, corporations, and foundations has become the most critical factor in advancing research and medicine.

With a gift to Comer Children's, you will continue to enable this groundbreaking research in pediatric cancer. Ultimately, by joining our fundraising efforts, you are changing the lives of our patients and families faced with this terrible disease. Your gift to the Section of Pediatric Hematology/Oncology at University of Chicago Comer Children's, will support the most promising research pediatric cancer.

We thank you for your consideration.

