

Children's Research Institute



Learning that a child has a serious health condition is devastating. Yet, no matter how dire a diagnosis may be, parents hold out hope that their child will survive and thrive due to promising research.



At Children's National, our researchers are working around the clock to develop innovative therapies and treatments. They know that there is not a moment to lose when it comes to saving a child's life.

The Reality Today

Despite advances in pediatric medicine, many children across the United States and around the world must cope with health conditions that are incurable or that have serious lifelong consequences. In order to discover new cures and design supportive new therapies, the most cutting-edge research is required. Yet one of the greatest challenges in pediatrics today is a lack of funding for research. This has devastating effects on children because it stalls the delivery of life-saving devices and therapies.

Leading the Way

Children's National's sole focus is children. We have remained focused on the health of children since our founding in 1870. Over the past 140 years, Children's National has developed a national and international reputation for pioneering new therapies and treatments across a wide array of medical specialties. We are consistently ranked among the best pediatric hospitals by *U.S. News & World Report* and the Leapfrog Group, the gold standard for excellence in patient care, quality, and safety. Children's National seeks to improve the health of children in our area, across the country, and around the world.

Through an interdisciplinary approach, our research teams accelerate medical solutions for children.

Children's Research Institute

At the Children's Research Institute (CRI), we seek to protect every child's future. As a driving force in innovative, research-based solutions for children, we can improve and champion their health throughout their lives and revolutionize care for children around the world.

Our leading scientists collaborate side-by-side with physicians and nurses to conduct translational, clinical, and community research. Through our integrated multidisciplinary approach, we are transforming treatments in the area of childhood cancer, genetic and rare disorders, developmental disabilities, and behavioral disorders. As one of the National Institutes of Health's top-funded pediatric institutions, CRI conducts research studies and clinical trials to improve children's quality of life. By cultivating novel research, CRI continually develops new, life-changing pediatric treatments and therapies.





CRI Centers

Cancer and Immunology Research

Through multidisciplinary research, we investigate multiple aspects of childhood cancers—their origins, immune responses to tumors, and their treatment. Our investigators also study:

- Bone marrow and stem cell transplantation
- Hematologic disorders, including sickle cell disease
- Infectious diseases that affect children



Genetic Medicine Research

We aim to transform children's health through genome-enabled research, pre-clinical studies of experimental therapeutics, and clinical trials. New discoveries in genetics allow us to predict and intervene to minimize risks throughout a person's lifetime. By bringing information from genetics and the environment together, we deliver the best care for every child.

Neuroscience Research

Our premier researchers help children with neurologic and behavioral disorders by seeking to better understand the development of the central nervous system, as well as the cellular and molecular mechanisms of brain dysfunction. The center is composed of eight major areas of research, including:

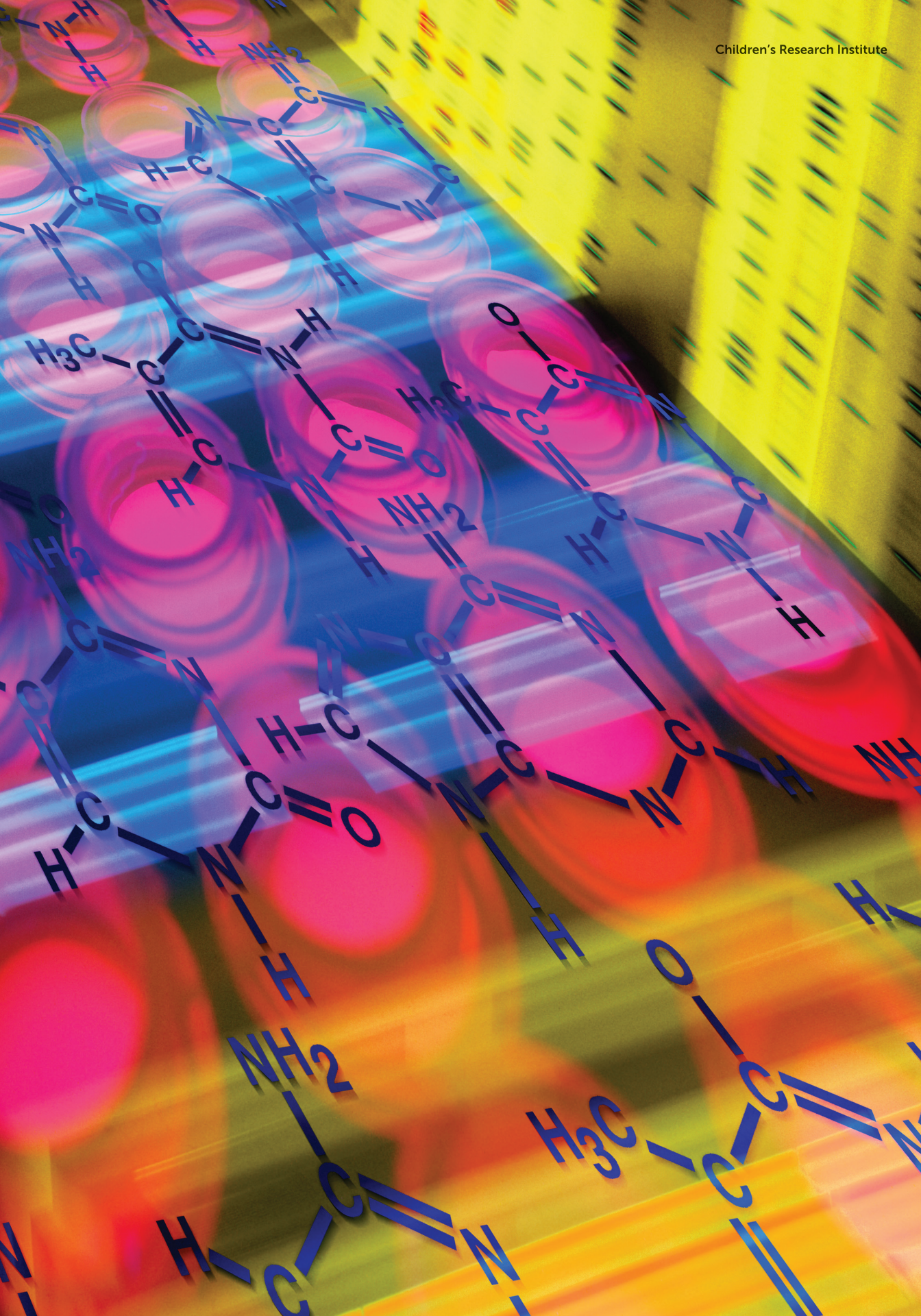
- Autism
- Brain development
- Developmental disabilities
- Fetal and neonatal brain injury
- Neural stem cells and developmental neurobiology
- Neurofibromatosis
- Neuro-oncology
- Pediatric epilepsy

The Center for Translational Science

We focus on prevention and treatment of childhood diseases, particularly among disadvantaged youth, to address healthcare disparities. We focus on some of the nation's most serious pediatric conditions, such as HIV-AIDS, asthma, obesity, and Sudden Infant Death Syndrome. Through translational research, we move scientific discoveries into therapeutic and preventative applications that help children thrive.

The Sheikh Zayed Institute for Pediatric Surgical Innovation

The Sheikh Zayed Institute for Pediatric Surgical Innovation at Children's National redefines surgery for children by combining research and clinical expertise into one collaborative team. Made possible by a historic philanthropic gift from the Government of Abu Dhabi, researchers are working closely with the surgical team to make pediatric surgery more precise, less invasive, and pain-free for children everywhere.





THREE YEARS AGO, ELLIE SCHLEYER, A BEAUTIFUL, VIBRANT, AND ARTISTIC YOUNG GIRL, SUDDENLY BECAME SICK.

What began as an annual family vacation to the Outer Banks in North Carolina turned into a life-altering experience. Ellie grew so dizzy that she stumbled and fell on the beach. The next day, her parents took her to a local clinic thinking she might have an ear infection. However, this was not the diagnosis.

"Ellie went on to see 38 doctors, undergo 27 MRIs, endure eight CT scans, seven spinal taps, and two brain biopsies," says David, her father. "Despite collaborating with the best doctors in the world and having all of these procedures conducted, we still do not have a definitive diagnosis for Ellie."

What the Schleyers do know is that their child has inflamed white matter in her brain, according to Dr. Adeline Vanderver, who treats Ellie at Children's National. Over the past several years, Ellie's parents have stood by and watched as their precious daughter has suffered with cognitive delays, speech impairment, seizures, swallowing issues, and other challenges.

"Dr. Vanderver is doing everything she can to treat Ellie and stop the disease from progressing, but every treatment is truly just experimental," says her father. "There is no funding available for researching this rare disease."

In response, the Schleyer family has faced adversity with strength and started GlitterMatters, a local fundraising campaign to help raise awareness and badly needed research dollars. "Ellie loves glitter, and she is a little girl who shines," says her dad. "Our hope is that through research, there will be a breakthrough and we will find the answers we are desperately looking for today, so that we can help our daughter and other children like her."



Ellie (left) with Dr. Vanderver

"One of our most powerful tools in treating children with neuroimmune disorders should be early and accurate diagnosis. Any delay can result in serious consequences to a child's life. At Children's National, our researchers are pushing the boundaries of thought to accelerate cures and save more young lives, in particular in identifying novel diagnostic tools. In the words of a patient's family, 'No diagnostic test means no possible diagnosis and no hope for treatment.'"

Adeline L. Vanderver, MD
Director, White Matter Disease Program

Children around the world are relying on us to ease their pain and foster their healing. With your help, we can light a path toward clearer scientific understanding. Together, we can improve and save lives.


Shape a Brighter Tomorrow

Philanthropy plays an essential role in enabling the Children's Research Institute to make new discoveries by conducting groundbreaking research. As today's healthcare and medical research environment undergoes dramatic shifts, health systems are experiencing more financial pressures than ever. Research is critical to advancing care and ensuring that children lead happy, healthy, and long lives.

With your support, we can give every child the best possible chance for a healthy future.

Join us and stand up for children everywhere.





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About Children's National Health System

Children's National Health System, based in Washington, DC, has been serving the nation's children since 1870. Children's National's hospital is Magnet®-designated, and is consistently ranked among the top pediatric hospitals by *U.S. News & World Report* and the Leapfrog Group. Home to the Children's Research Institute and the Sheikh Zayed Institute for Pediatric Surgical Innovation, Children's National is one of the nation's top NIH-funded pediatric institutions. With a community-based pediatric network, eight regional outpatient centers, an ambulatory surgery center, two emergency rooms, an acute care hospital, and collaborations throughout the region, Children's National is recognized for its expertise and innovation in pediatric care and as an advocate for all children. For more information, visit ChildrensNational.org.

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