

# HOPE

CHILDRENSHOSPITALVANDERBILT.ORG



## In Good Hands

Integrated services prioritize youth mental health and well-being

WINTER/SPRING 2022





Mascots Gnash,  
of the Nashville  
Predators, and Champ,  
of Monroe Carell Jr.  
Children's Hospital at  
Vanderbilt, team up to  
support patients.



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WINTER/SPRING 2022

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"I had always been a happy, cheery, giggling type of girl, but then I just kind of slowed down."



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I was just 3 years old. But that one word – “cancer” – set me on a lifelong career path.

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# HOPE



## President

Monroe Carell Jr. Children's Hospital  
at Vanderbilt  
Meg Rush, MD, MMHC

## Pediatrician-in-Chief, Chair of the Department of Pediatrics and James C. Overall Professor

Steven Webber, MBChB, MRCP

## Surgeon-in-Chief and Chair of the Department of Pediatric Surgery

Jeffrey Upperman, MD

## Senior Vice President of Pediatric Surgical Services, Monroe Carell Jr. Professor, Surgeon-in-Chief Emeritus

John W. Brock III, MD

## Senior Vice President for Development

Mary Beth Thompson

## Editor

Christina Echegaray

## Contributors

Rebecca Adcox, Jill Clendening,  
Christina Echegaray, Nancy Humphrey,  
Leigh MacMillan, Jessica Pasley,  
Emily Stembridge, Paige Turner

## Director of Publications

Kathy Whitney

## Photography

Julie Igo, Donn Jones, Erin O. Smith,  
Susan Urmey

## Design and Art Direction

Diana Duren

## Executive Director of New Media and Electronic Publications

Wayne Wood

## Advisory Board Members

The Children's Hospital Advisory Board is an advocacy, fundraising and advising group. Members educate constituents in the community and do outreach to secure resources to support the mission of Children's Hospital. Learn more at [VanderbiltHealth.org/advisoryboards](https://VanderbiltHealth.org/advisoryboards).

## Mission Moment

Entering a new year, we are filled with hope for achieving new goals, establishing new routines and beginning new projects. And yet, we find ourselves facing the ongoing challenge of the ever-evolving COVID-19 pandemic. We are fortunate to be surrounded by children every day, and in them, we continually find inspiration. Their courage and resilience in the face of illness and injury empowers us to work together every day and to look forward on their behalf.

In this issue of *Hope*, we highlight achievements met by consistently looking forward with a commitment to improving the health and well-being of youth in our community and beyond. In doing so, we recognize important milestones as well as individuals who advance our missions of discovery, education, clinical programs and advocacy.

Through a Q&A with the leader of our pediatric diabetes center, one of the largest in the region, we celebrate the centennial anniversary of the discovery of insulin and our team's contributions to advancements in diabetes care. We also share the opening of the new Reed Family Maternal Fetal Clinic and all that the multidisciplinary program affords within the greater context of our growth to the highest level of newborn intensive care in our region. And we introduce you to our multidisciplinary clinical and research teams focused on complex thyroid conditions, including thyroid cancer.

Each of these programs shares the common foundation of our commitment to health and community. We round out this issue highlighting our desire to build greater resources to support the mental health of all our patients. The COVID-19 pandemic has increased focus on existing issues in our youth and their families as they deal with their acute and chronic illnesses, but also everyday stressors. We are building the team and programs to better attend to these needs.

Together, as a community, we have and will continue to respond to the needs of those we serve, through research, education and our clinical programs. We are so very grateful to everyone who joins us in providing hope — past, present and future.

Sincerely,

Meg Rush, MD, MMHC  
*President*

Steven Webber, MBChB, MRCP  
*Pediatrician-in-Chief, Chair of the Department of Pediatrics and James C. Overall Professor*

Jeffrey Upperman, MD  
*Surgeon-in-Chief and Chair of the Department of Pediatric Surgery*

John W. Brock III, MD  
*Senior Vice President of Pediatric Surgical Services, Monroe Carell Jr. Professor, Surgeon-in-Chief Emeritus*



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to find out how you can make  
a difference.





# good to know

NEWS FROM CHILDREN'S HOSPITAL



**Children ages 5** and older are now eligible to receive the COVID-19 vaccine, which is shown to be safe and effective. Monroe Carell Jr. Children's Hospital at Vanderbilt has been active in vaccinating children and teens for COVID-19 both in clinics and with mass vaccination sites. Studies looking at the COVID-19 vaccine in children younger than 5 years are ongoing, including a study at Vanderbilt that is being led by C. Buddy Creech, MD, MPH, director of the Vanderbilt Vaccine Research Program and holder of the Edie Carell Johnson Chair in Pediatrics. The vaccine for children ages 6 months through 4 years could be available in the spring. Shown above, Amya Elliott, 9, talks with Bonnie Pilon, RN, PhD, prior to receiving her COVID-19 vaccine during a mass vaccination clinic for children ages 5-11 years old. 🐛





## Hockey fights pediatric cancer

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The Nashville Predators hockey team, longtime supporters of Monroe Carell Jr. Children's Hospital at Vanderbilt and its programs, recently presented the hospital with the proceeds raised throughout the year from the team's 365 Pediatric Cancer Fund presented by Twice Daily.

During Hockey Fights Cancer month, the Nashville Predators Foundation, empowered by SmileDirectClub, recognized the \$335,000.21 in donations and in-kind contributions raised.

Also, the team held its fall Hockey Fights Cancer game Nov. 13, 2021, to raise funds to support childhood cancer initiatives at Children's Hospital.

The 365 Fund, which was created during the 2012-13 season by recently retired goaltender Pekka Rinne and former captain Shea Weber, has now donated more than \$3.6 million in cash and in-kind contributions to the life-changing pediatric cancer research that takes place at Children's Hospital. 🦋

## Children's Hospital program brought flu vaccines to underserved areas

**B**efore flu season was underway in Middle Tennessee, Monroe Carell Jr. Children's Hospital at Vanderbilt doctors and nurses went on a mission to protect children from the virus before it arrived.

The team, led by pediatrician Elizabeth Williams, MD, MPH, dubbed its project "The Mobile Flu Fighter!" The pilot project aimed to bring flu vaccines and education into Nashville's communities where flu vaccine uptake is lower, particularly among Black children. The Vanderbilt University Medical Center Office of Health Equity provided grant funding to support the initiative.

"In our primary care clinic on DOT 8 in Children's Hospital, we looked at our uptake of flu vaccine among patients, and we found that there is a big disparity between patients who are Black/African American and all other races, as far as uptake of the flu vaccine. As a team we developed a health equity flu vaccine team, and we were trying to reduce this disparity," said Williams, assistant professor of Pediatrics.

In a review of flu vaccine uptake rates among pediatric patients of the Primary Care Clinic, the team found that about 61.6% of Black pediatric patients received the vaccine compared to 87.6% of

white pediatric patients.

Focus groups with mothers revealed why they were hesitant to get the flu vaccine for their children.

"One of the biggest things to come out of the focus group was trust — just the sense of trust with the providers. And there is also still a lot of misinformation about what the flu vaccine is, if it can cause the flu and whether you even need it, especially since it is not required for school," Williams said.

The Mobile Flu Fighter! unit identified different ZIP codes where there were lower flu vaccination rates among the DOT 8 pediatric patient population.

During four community-based, family-friendly events, the volunteer team of physicians, nurses, coordinators and residents traveled in The Mobile Flu Fighter! van with their vaccination supplies and information to each site. In

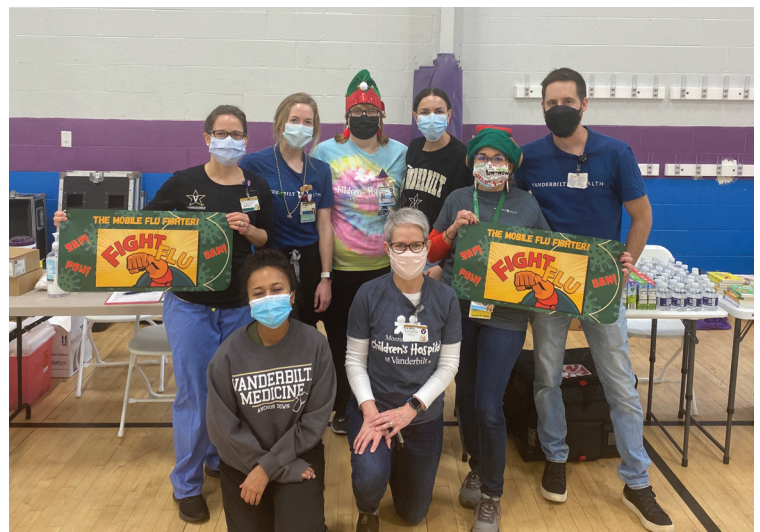
total, the group vaccinated about 50 children.

Educating families about the vaccine was an important part of the initiative.

"We want parents to know that flu is one of the more serious viral illnesses out there, and it causes kids to be hospitalized; every year kids die from the flu. The flu vaccine is safe, and you cannot get the flu from the vaccine," Williams said.

The Mobile Flu Fighter! team will assess and evaluate strategies used and consider how to proceed next year, possibly combining forces with other similar initiatives around Vanderbilt to grow the project.

People and teams involved in the pilot project include: Barron Patterson, MD, Kelly Moore, Meredith Denney, the VUMC Health Equity Team, and many others. 🦋



# 18

Monroe Carell Jr. Children's Hospital at Vanderbilt opened its doors 18 years ago on Feb. 8, 2004, as Middle Tennessee's first and only comprehensive pediatric health care facility. Monroe Carell Jr., the hospital's namesake, and his wife, Ann Scott Carell, were involved every step of the way from philanthropy to the hospital's design as a warm and welcoming place. Today, their daughters — Kathryn Carell Brown, Edie Carell Johnson and Julie Carell Stadler — and their families continue the long-standing tradition of supporting Children's Hospital and its programs, research and training. 🦋



DONN JONES



Bella Villamil

## Lights shine bright to show support for patients and staff



Bella Villamil, 5, waved a small red flashlight across the ceiling of her hospital room at Monroe Carell Jr. Children's Hospital at Vanderbilt. She playfully flickered the light in unison with Child Life assistant Mikayla Taylor.

They were practicing for Children's Hospital's growing yearly tradition: the third annual Night Lights for Monroe Carell Jr. Children's Hospital at Vanderbilt, which occurred Nov. 9, 2021.

On that night, Nashville and surrounding Midstate communities and businesses illuminated buildings and structures in Children's Hospital's primary colors to say a special "good night" to patients and families and to show gratitude to the health care teams who care for so many children. To celebrate the evening, staff across Children's Hospital wore Night Lights T-shirts.

The night also included a special virtual program that broadcast directly to patients' rooms. Online

coverage via Children's Hospital and NewsChannel 5 social media channels allowed staff, the community and children and families to participate from home. The NewsChannel 5 helicopter captured live aerial footage of Nashville's lighted structures.

Virtual programming for patients and staff also included a private performance by popular singer/songwriter Walker Hayes. Hayes became a sensation after a TikTok video to his hit song "Fancy Like," featuring him dancing with his daughter, went viral. Many Children's Hospital employees filmed their own "Fancy Like" dance moves for the ultimate video mashup, which Hayes shared on his Instagram account.

Some of Nashville's most iconic structures and businesses were lit in the Children's Hospital primary colors as a display of support. As part of an expanded celebration, several communities across Middle Tennessee also

joined in to illuminate their city and county structures and offer social media shout-outs for the evening.

"In a year-plus of unprecedented challenges, our third annual Night Lights shined a bright light on our communities' caring spirit and continued commitment to provide hope and healing for all the children and families who come to us for their health care needs. I am incredibly grateful to all our Nashville and Middle Tennessee communities, partners and businesses who made the third annual Night Lights possible and helped brighten an evening for children and our staff," said Meg Rush, MD, MMHC, President of Children's Hospital.

"I am in awe of the growing number of iconic Nashville buildings and structures that are lighting up in the Children's Hospital primary colors for this special 'good night' to patients," Rush said. 🦋

## Neurologic complications of the flu



Over the last decade, there has been increasing awareness of neurologic complications associated with influenza infection, particularly in children, but studies attempting to characterize these complications have had limited scope and conflicting results.

James Antoon, MD, PhD, assistant professor of Pediatrics, and colleagues did a multicenter study evaluating neurologic complications among children hospitalized with influenza in the U.S. The study, published in *The Journal of Pediatrics*, included children 2 months to 17 years old admitted to 49 children's hospitals during the influenza seasons of 2015-2020.

Among 29,676 children hospitalized with influenza, 7.6% had a concurrent neurologic complication, most frequently febrile seizures, encephalopathy and non-febrile seizures. Neurologic complications were associated with prolonged length of stay, increased costs and increased death.

Children who were male, of Asian race, and those with chronic neurologic conditions were at higher risk of neurologic complications, emphasizing the importance of influenza immunization and treatment in this population, the researchers concluded.

This research was supported by the National Institutes of Health (grants HL137943, AI021325, AI141621, AI048459, AI125642). 🦋

# PIONEERING CARE FOR INFANTS

Monroe Carell Jr. Children's Hospital at Vanderbilt has one of the oldest neonatal intensive care programs in the country. Founded in 1961 by pioneering neonatologist Mildred Stahlman, MD, the NICU was one of the first specialized hospital programs in the world exclusively for the care of preterm infants. The NICU has grown from 20 beds in the adult hospital to the current 116 beds in Children's Hospital. For 2021, the NICU had over 1,500 admissions from across Tennessee and surrounding states. Lung disease, due to birth defects or prematurity, is the most common reason infants are admitted to the NICU.



1963

First neonatal ventilator developed and tested by Mildred Stahlman, MD. Today, we utilize state-of-the-art mechanical ventilators and non-invasive methods.

1989

Extracorporeal Membrane Oxygenation (ECMO) for newborns with severe respiratory failure started under the direction of surgeon John Pietsch, MD, and later, neonatologist Bill Walsh, MD.

2021

At Children's Hospital, NICU patients needing mechanical ventilation experienced record low rates of unplanned extubation (UE), with 4 per 1,000 ventilator days over the course of >5,000 ventilator days in 2021. A UE is any removal of the endotracheal tube that the medical team did not plan.

## Meeting our patients where they need us...



Collaborative care in The Reed Family Maternal Fetal Clinic for optimal delivery planning of high-risk fetuses.



Safe transport to the NICU for babies born at Vanderbilt, or in the community, via state-of-the-art transport services.



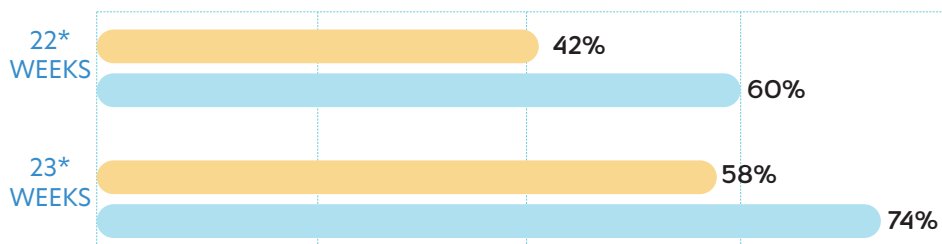
Continuous care post-hospitalization with pediatric subspecialists, and following outcomes in the Neonatal Neurodevelopment Clinic.

## Survival rates for infants born extremely early

(2016-2020)

Nationally

Children's Hospital



\*22 and 23 weeks of completed gestation; 40 weeks is term.



## Clinics created to treat children with genetic disorders

Theodore Gray was born on May 13, 2021, a few weeks early — small, but seemingly healthy. His parents, Amanda and Coty, soon took him home to Waverly, Tennessee, to join big brother Tony, 7, who had prayed for a little brother.

The following week, Amanda was notified from Tennessee's newborn screening program of the possibility that Theodore had adrenoleukodystrophy (ALD), a genetic condition occurring in about one in 17,000 people that over time damages the myelin sheath, the protective membrane that insulates nerve cells in the brain. Without the myelin sheath, the nerve cells that allow thinking, talking and controlling muscles no longer function correctly. A week later the diagnosis was confirmed.

Newborn screening detects rare and possibly life-threatening diseases that wouldn't be immediately obvious. Symptoms could be years away. Early detection of ALD and other diseases that have effective interventions can prevent long-term complications or even be lifesaving. The test screens for 69 diseases in Tennessee.

Monroe Carell Jr. Children's Hospital at Vanderbilt has established clinics for children with ALD and other genetic disorders that are found on newborn screening, including Fabry disease, Krabbe disease and others.

Following the diagnosis, the Grays met with Kevin Ess, MD, PhD, associate professor of Pediatrics, director of the Division of Pediatric Neurology and the Gerald M. Fenichel Professor of Neurology, during their genetic counseling at Children's Hospital, then in July at a dedicated ALD clinic. This multidisciplinary clinic

is a collaboration within Pediatrics between Neurology, Endocrinology, Genetics and Hematology/Oncology.

"They explained everything on a level we were able to understand," Amanda said. "I'm in the medical field, but at a lab doing bloodwork, so anything dealing with neurology is so far above our heads. They took our questions, explained everything and gave us hope. If you Google any kind of leukodystrophy, it's terrifying. The statistics are horrible. To have this team of specialists look at your child and say there's hope here, that's comforting."

The providers participating in the multidisciplinary clinic include Ess from Neurology, Allison Shields, CPNP, MSN, from Genetics; Nidhi Gupta, MD, assistant professor of Pediatrics, from Endocrinology; and Jim Connelly, MD, assistant professor of Pediatrics, from Hematology/Oncology.

"Just organizing an annual visit can be complicated when you're seeing multiple specialists," said Elizabeth Hinkley, a clinical research coordinator who coordinates the clinics. "The purpose of the clinics is to streamline care; to make it easier for our patients with

these rare diseases so when they come in, they can see almost all of their providers in one visit instead of having to come in three to four times to see different people."

With ALD the body can't break down very long-chain fatty acids (VLCFAs), causing saturated VLCFAs to build up in the brain, nervous system and adrenal glands. The most common type of ALD is cerebral X-linked ALD, which affects males much more severely than females, who can carry the disease without any symptoms.

Symptoms from this form of cerebral X-linked ALD usually appear between ages 4 and 10 years and worsen over time.

Gradually, because the disease spreads throughout the brain, the symptoms will grow worse — and could include blindness, deafness, seizures, loss of muscle control and progressive dementia. If not diagnosed early, childhood-onset cerebral ALD will likely lead to death within five to 10 years. There is hope, however, that bone marrow transplants done by Connelly and his team can prevent many of the neurological issues with these patients. 🦋

## Creech named inaugural holder of new Carell chair

C. Buddy Creech, MD, MPH, professor of Pediatrics in the Division of Pediatric Infectious Diseases and director of the Vanderbilt Vaccine Research Program, has been awarded the Edie Carell Johnson Chair in Pediatrics.

Julie Carell Stadler, Kathryn Carell Brown and Edie Carell Johnson made a commitment to endow the new chair in Pediatric Infectious Diseases research at Vanderbilt University School of Medicine. The gift was made to celebrate Johnson's leadership as chair of Vanderbilt University Medical Center's Board of Directors. The Carell family has established multiple chairs and has been instrumental in funding vital programs and expansions.

They follow in the footsteps of their late parents, Ann Scott Carell and Monroe Carell Jr., namesake of and visionary for Monroe Carell Jr. Children's Hospital at Vanderbilt.

Creech's research focuses on new vaccines and therapeutics, particularly vaccines targeting influenza, pertussis and *S. aureus*. Currently, he leads several COVID-related clinical trials.

He received his bachelor's degree in biology from Vanderbilt University and his medical degree from the University of Tennessee College of Medicine in Memphis. He completed residency and fellowship training at Vanderbilt and received a master's degree in public health. 🦋

Amanda Gray with her husband, Coty, and sons, Tony and Theodore.



SUBMITTED PHOTO

## Pediatric cardiomyopathy program receives top honors



Monroe Carell Jr. Children's Hospital at Vanderbilt has been named an accredited center of care by the Children's Cardiomyopathy Foundation, a national non-profit committed to improving the health outcomes and quality of life for children with cardiomyopathy.

The Pediatric Cardiomyopathy Program at Children's Hospital is one of only a few such programs in Tennessee.

Cardiomyopathy is a chronic heart disease that affects how the heart pumps blood through the body.

Children's Hospital received this recognition for providing consistent high-quality cardiac care and specialized disease management to children with cardiomyopathy.

The program also was recently named a center of excellence for hypertrophic cardiomyopathy by the Hypertrophic Cardiomyopathy Association (HCMA), a non-profit organization that provides support, advocacy and education to patients and health care professionals. The Pediatric Hypertrophic Cardiomyopathy Program at Vanderbilt is one of a few pediatric programs in the country to receive HCMA center of excellence designation.

Pediatric cardiomyopathy is a complex and variable disease with only a quarter of those diagnosed having a known cause. The disease requires a team approach to providing comprehensive care. 🍷



Lily Hensiek (right) with her mother, Larisa Featherstone

RACHEL MOORE

## Eve of Janus celebrates 50th anniversary with \$1 million gift

The Eve of Janus, the longest-running fundraising event for Monroe Carell Jr. Children's Hospital at Vanderbilt, recently celebrated its 50th anniversary with a \$1 million milestone gift to the hospital's Tri Delta Pediatric Hematology/Oncology Clinic.

As part of A Campaign Against Childhood Cancer: Soaring Higher, Dreaming Bigger, the donation will help expand space dedicated to clinical care for pediatric and adolescent cancers and will address the needs of even more families in the region.

Each year, the Eve of Janus, coordinated by volunteer Tri Delta alumnae, recognizes outstanding college-age individuals from the Nashville area at their gala event supporting Children's Hospital.

Since 1970, the Eve of Janus has raised over \$5 million in sup-

port of Children's Hospital's pediatric cancer initiatives.

Through this generosity, they've provided funding for a research laboratory and established the Tri Delta Pediatric Cancer Endowed Research Fund and the Tri Delta Pediatric Hematology/Oncology Clinic.

"We are so proud to celebrate 50 years of supporting pediatric cancer efforts at Children's Hospital," said Carolyn Hannon, co-chair, along with Carroll Kimball, of the Eve of Janus Advisory Board. "Our multiyear pledge signifies the excitement we have for expanding pediatric cancer care and our deep commitment to this cause."

Additionally, the 2021 gala event, held in December, was dedicated to the memory of the late Luke Gregory, former Children's Hospital Chief Executive Officer, who died after a coura-

geous battle with lymphoma in 2019. Gregory was recognized as honorary co-chair for the 2021 gala.

Serving as junior honorary co-chair was former Children's Hospital patient and childhood cancer survivor, Lily Hensiek. Now a junior at the University of South Carolina, Hensiek is an advocate for children with cancer and their families.

The 50th gala event, chaired by Carolyn Taylor and Lori Morgan, took place at the Country Music Hall of Fame to celebrate the collegians and their families.

"We salute the efforts of volunteers past and present and are incredibly grateful for their commitment," said Kimball. "Building upon the Eve of Janus' past support of Children's Hospital, our new gift will be used to improve the treatment experience and prognosis of pediatric patients facing a cancer diagnosis."

To learn more and stay up to date, visit [EveofJanus.com](http://EveofJanus.com). 🍷



# conversations

INTERVIEW WITH WILLIAM RUSSELL, MD



William E. Russell, MD, is director of the Ian M. Burr Division of Pediatric Endocrinology and Diabetes, professor of Cell and Developmental Biology, and holder of the Cornelius Vanderbilt Chair in Pediatrics.

PHOTOGRAPH BY ERIN O. SMITH



**Q Can you share the difference between Type 1 and Type 2 diabetes? Are both seen in children?**

**A** Type 2 diabetes is by far the most common form of diabetes, and its onset is predominately in adults. It has a strong genetic component and begins with the body's tissues becoming insensitive to the actions of its own insulin. This can often be managed with oral medications, but eventually, the patient's beta cells, which produce insulin in the pancreas, become dysfunctional and insulin injections are often required.

Type 1 diabetes is an autoimmune disease. We see Type 1 in infants through young adults, with peak incidence between ages 10 and 15. The patient's immune system attacks the insulin-producing beta cells, and the patient cannot produce insulin. The only treatment for Type 1 diabetes is insulin from the onset. Type 1 diabetes, which is lifelong, is often seen in families and in patients with other autoimmune conditions.

Both forms of diabetes result in elevated glucose levels in the blood and can cause damage to multiple organs.

**Q What have been the biggest advancements in diabetes care since the first injection of insulin in 1922?**

**A** The greatest advancements include the development of ana-

log insulins, insulin pumps and continuous glucose monitors (CGMs).

- Analog, or synthetic, insulins have been engineered to have either more prolonged or more rapid action times in the body than natural insulin.

- Insulin pumps provide automated delivery of insulin to the patient without the need for separate injections for each meal and for overnight control. Pumps can be programmed to give differing amounts of insulin during the day and night and to meet changing physiologic needs such as during puberty, around sports and illnesses and pregnancies.

- Continuous glucose monitors, worn on the skin, provide almost instantaneous readouts of the glucose levels in the tissue fluids throughout the day and night.

**Q What is on the horizon for diabetes treatment/care?**

**A** Great advances have been made in coupling insulin pumps with CGMs. The CGM can automatically modify the pump's delivery to prevent low blood glucose emergencies (especially during a patient's sleep) and rising blood glucose. However, keeping patients, especially adolescents, engaged with monitoring their glucose levels and adjusting their insulin doses can be challenging. New technology is extraordinarily useful but adds a considerable burden to the patient's daily routine. Ultimately, the goal is to have the patient much less involved in the decision-making of insulin dosing.

Exciting new results are emerging about insulin-producing cells derived from the patient's own stem cells. These cells are implantable into tissues that have free access to the bloodstream and therefore elimi-

nate some of the shortcomings of injections and pumps.

**Q How has Vanderbilt played a role in the development of diabetes treatments?**

**A** The most consequential research study impacting the treatment of diabetes since the discovery of insulin was the "Diabetes Control and Complications Trial," or DCCT, designed and led by Vanderbilt's Dr. Oscar Crofford from 1982 to 1993. It showed unequivocally that the degree of blood glucose control in diabetes is directly related to the risk of developing later diabetes-related complications. The DCCT led to a redoubling of efforts to improve the tools for diabetes management.

In our division, Justin Gregory, MD, has highlighted major problems that result when we inject insulin under the skin rather than directly into the bloodstream. His research explores the development of insulin pumps that can release insulin into body compartments that have direct access to the blood. He also looks at developing new analogs that are only active in insulin-sensitive tissues such as the liver. Daniel Moore, MD, PhD, has an active research program to determine why the body begins to attack insulin-producing cells in Type 1 diabetes. His work aims to prevent the autoimmune process that leads to Type 1 diabetes. Vanderbilt is also a leading contributor to the NIH-funded Type 1 Diabetes TrialNet consortium, which is making great strides in the prevention/modification of the autoimmune attack on insulin-producing cells. 🐛

*Critical diabetes research like this is made possible through the support of our generous donor community.*





Adriana Bialostozky, MD

# Connection and Community

*Through advocacy and clinical care programs, Adriana Bialostozky seeks to augment health care for the Latino community.*

STORY BY CHRISTINA ECHEGARAY  
PHOTOGRAPH BY DONN JONES

**T**en years ago, five mothers and their children, ages 5 weeks to 2 years, gathered in the Pediatric Primary Care Clinic at Monroe Carell Jr. Children's Hospital at Vanderbilt seeking a community of health care in a place where their cultural and language needs were met and understood.

For a half day, once a week, Adriana Bialostozky, MD, and another primary care physician, along with nurses — all bilingual — led group well-child visits for Spanish-speaking mothers and their young children.

The program, Mi Bebé y Yo (My Baby and Me), launched as an initiative at Children's Hospital to help Latina mothers navigate and access quality pediatric health care while forming cultural bonds and relationships. One group grew into five to eight groups of mothers and children a year. The group allowed mothers to explore issues important to them, like sleep routines and discipline, and ensure their children were meeting important health milestones.

"I've always thought about how to create different spaces for our families to be seen in clinics," said Bialostozky, associate professor of Pediatrics. "It's a beautiful model because it was a way of doing anticipatory guidance and building a community."

Mi Bebé y Yo was among the first of several programs Bialostozky launched after arriving at Children's Hospital in 2005 to augment care for Spanish-speaking families and close care gaps, all to fill their medical and social needs. Her mission to support those needs has expanded exponentially into other areas over the years as she focuses on patient education, community advocacy and training future generations of doctors fluent in Spanish.

"I knew when I came to Vanderbilt that I wanted to work with the Latino population," she said. "I am extremely privileged to work with the Latino community. They are incredibly thoughtful and careful of their children."

As Bialostozky has cultivated the size and scope of programs for Spanish-speaking families, more Latinos have also moved to the Nashville area.

Since the 2000 U.S. Census, the Hispanic-Latino population in Nashville-Davidson County nearly tripled, growing from about 26,000 residents to the current 72,200 residents, or about 10.4% of the area's popula-



# spotlight

DIVERSITY, EQUITY AND INCLUSION



**“I am extremely privileged to work with the Latino community. They are incredibly thoughtful and careful of their children.”**

– ADRIANA BIALOSTOZKY

tion. That growth has been mirrored in the Pediatric Primary Care Clinic at Children’s Hospital. About 10% of Children’s Hospital patients identify as Hispanic-Latino.

In 2011, she created the Spanish Language Clinic within the Pediatric Primary Care Clinic at Children’s Hospital.

The Spanish Language Clinic, with sessions multiple days a week, is staffed by bilingual pediatricians, residents and nurses on the eighth floor of Doctors’ Office Tower at Children’s Hospital. The clinic, which addresses the medical and social needs of the Spanish-speaking population, is a draw for not only patients but for many pediatric residents each year. The team offers well-child and sick visits, comprehensive care for patients with chronic illnesses, children’s immunizations, the Mi Bebé y Yo program, and bilingual literacy promotion programs.

“Now, we are starting to see second generations of children in our Latino families. Despite speaking English, they come to the Spanish Language Clinic because it is a culturally appropriate space for the family,” Bialostozky says.

Language, cultural differences and socioeconomic factors, she noted, can be some of the biggest barriers to adequate access to health care for families.

Many of the same barriers she addresses are what drew her to medicine.

“I have always loved science, and I love the interaction with people,” she said. “For me, addressing the lack of access to the care people get has always been important.”

## Family roots

Growing up in Mexico City, Bialostozky’s passion for medicine was influenced by her father, David Bialostozky, a cardiologist. While he provided care in a clinical practice, he also cared for people in the community who didn’t always have access to comprehensive care. Her mother, Clara Jusidman, was active in social justice work, in political, economic, social and cultural rights, throughout Mexico City.

In her last year of medical school in Mexico when she had to complete a year of community service, Bialostozky chose to work with underserved populations, specifically indigenous populations in Mexico, many of whom speak their own languages, not Spanish.

“My desire to work with the underserved

absolutely has a lot to do with both my parents. I think I always knew I wanted to work with underserved populations from my earliest exposures,” she said.

After medical school and a year of internship, Bialostozky worked as the only primary care physician in the rural Mexican state of Chiapas, which has high poverty rates and a large indigenous population. She was responsible for prevention and management health care programs that served 5,000 people.

In pursuit of further medical training outside of Mexico, Bialostozky moved to New York City where she did research on the influence of ethnic differences on obesity in parents and their children. New York City is also where she met her husband, David Parra, MD, a pediatric cardiologist at Children’s Hospital. Together, they matched at Nicklaus Children’s Hospital in Miami, Florida, where she did her residency in pediatrics.

She went on to do a health services research fellowship at the University of Michigan. She furthered her drive to care for underserved populations while working in a health clinic for migrant farm workers and later at a nonprofit clinic for people without insurance.

When she interviewed at Children’s Hospital, she wanted to carry the work forward to Nashville.

At Children’s Hospital, Bialostozky is engaged in improving diversity, equity and inclusion within pediatric health care both for patients and the people who work there. In 2009, she was part of a work group that helped develop a framework for the creation of the Office of Inclusion and Health Equity at Children’s Hospital.

As COVID-19 took hold in 2020, she

joined Vanderbilt initiatives to inform Spanish-speaking populations about the virus and to develop patient education materials in Spanish that were also culturally appropriate.

That included working with Conexión Américas, a local nonprofit that serves the Latino community’s needs, to raise awareness. She gave virtual talks and created several videos for the Latino community about the virus, public health safety measures and vaccination. Bialostozky is also a previous board member of Conexión Américas.

Also, that year, she became an advisory committee member as well as co-chair of the patient equity subcommittee for the Vanderbilt Department of Pediatrics Diversity, Equity and Inclusion Committee.

## What’s next?

To help address some of the health care barriers for Spanish-speaking populations, Bialostozky says creating a network of care teams who know the language and understand the culture will be vital.

“The medical education pipeline of Latino doctors is very small,” she said. “We need to increase diversity of our doctors.”

Each year she works with bilingual residents in the Spanish Language Clinic to train them to care for future generations of Latino children. The program currently has six residents. To be considered for the three-year program, residents must show competency in Spanish.

Ensuring patients and families have a voice will also be important. She is working across the institution with patient- and family-centered care teams to develop a Spanish-speaking Family Advisory Council.

“Our goal is to create a way for our Spanish-speaking parents to have input. It’s very important the parents have a say and that we make sure our materials are translated correctly and in a way that is culturally adequate,” Bialostozky said. 🦋


# IN GOOD HANDS

Expanded services support  
childhood well-being

STORY BY NANCY HUMPHREY  
ILLUSTRATION BY ADOBE STOCK







**S**ara Francis, PhD, has been invaluable to Erin and Ron Taylor as they navigate parenting Levi, 7, and Carolina, 4. Both children have cystic fibrosis (CF), a disease affecting the respiratory, endocrine, reproductive and digestive systems.

A psychologist who sees patients and families with CF and other acute and chronic diseases at Monroe Carell Jr. Children's Hospital at Vanderbilt, Francis has helped the Taylors ease the stress of having two children who need hours of breathing treatments and physical therapy each day, navigating them through a pandemic and patiently listening anytime Levi, 7, wants to talk about dinosaurs, rocks, the Tennessee Titans or his feelings.

"The fact that there's someone immediately available to talk not only to Levi, but to us about caregiver stress and how the disease affects our children as they grow up, has been a huge asset to the team," said Erin. "I deal with anxiety in general, but being a caregiver mom is really stressful. There is a lot to fit in every day with CF treatments and medication, in addition to the normal family and kid stuff — baths, dinner, homework and activities. On top of the logistical stresses, I carry around a lot of worry about test results and disease progression. Sara's helped Levi, and she's helped us."

The CF clinic is just one of several clinics at Children's Hospital with psychologists on the team of health care professionals who take care of children with chronic diseases who are at a higher risk of depression and anxiety.

Sarah Jaser, PhD, associate professor of Pediatrics, is the director of the new Division of Pediatric Psychology within the Department of Pediatrics at Children's Hospital to address the rising needs for psychology services for children with acute and chronic medical conditions.

The division, which launched July 1, 2021, includes eight pediatric psychologists and researchers working across a variety of clinical settings, including diabetes, oncology, inpatient hospital services, CF, cardiology, gastroenterology (GI) and the transplant team. The psychology team also works closely with colleagues in the Division of Developmental Medicine and the Department of Psychiatry to align and enhance services for young patients.

"It's important to provide more multidisciplinary care for our patients. This puts the psychosocial piece front and center," Jaser said, adding that psychology services for pediatric patients at Children's Hospital have existed for some time, but are now under one umbrella.

"The new division gives us a home where we can support and share resources and come together administratively to determine how to best serve our patients," said Jaser, who holds the Dr. William R. Long Directorship in Pediatric Psychology.

## Mental Health State of Emergency

In October 2021, the American Academy of Pediatrics, the American Academy of Child and Adolescent Psychiatry and the Children's Hospital Association, together representing more than 77,000 physician members and more than 200 children's hospitals, declared a national state of emergency in child and adolescent mental health and called on policymakers to join them.

The statement said that the COVID-19 pandemic has exacerbated the mental health challenges faced by youth as they deal with isolation, ongoing uncertainty, fear and grief.

Meg Rush, MD, MMHC, President of Children's Hospital, testified before U.S. Congress in September 2021 about the impact of COVID-19 on the physical and mental health of children. "There is a parallel behavioral health epidemic," she said, adding that the number of children in the hospital for behavioral health often surpasses the number of children in the hospital for COVID-19.

"Yesterday, there were 34 children admitted for behavioral health crisis in my hospital," Rush testified, which is about the number of children who would fill an entire inpatient floor at Children's Hospital.

According to the Centers for Disease Control and Prevention (CDC), 7.1% of children ages 3-17 (about 4.4 million) have diagnosed anxiety and 3.2% in that same age group (about 1.9 million) have diagnosed depression. Those diagnosed with anxiety and depression

have increased over time, according to the CDC.

Jaser said it's hard to know if the incidence is on the rise or it's being talked about and reported more with increased screening efforts.

"There are many hypotheses about why — one being increased social media use, but there's also increased awareness and increased acceptance of talking about mental health issues. There might be kids who in years past have experienced these issues, but not necessarily brought them up or talked about them. So, some of those higher rates are reflecting what was already there."

## Chronic Illness Takes its Toll

Children who have chronic illnesses are more likely to develop a mental health condition, according to the National Institute of Mental Health (NIMH), part of the National Institutes of Health. They are also at a greater risk of becoming adults with depression or anxiety, according to a study published in the *Journal of Child Psychology and Psychiatry*.

**"It's important to provide more multidisciplinary care for our patients. This puts the psychosocial piece front and center."**



With help from psychologist Sara Francis, PhD, Carolina and Levi Taylor learn coping skills to deal with their chronic illness.

SUSAN URBAN



It can also take a toll on the mental health of parents and siblings, the NIMH says.

Francis, assistant professor of Pediatrics, works with the entire family in the multidisciplinary GI, CF and spina bifida clinics, as well as children with general behavior disorders and those with anxiety, attention deficit hyperactivity disorder and autism seen at University Pediatrics at Vanderbilt Health One Hundred Oaks. She has a full plate.

In the GI clinic, Francis educates the family about the mind/gut connection. The brain has a direct effect on the stomach and intestines.

"I'm an educator and a consultant," Francis said. "Often, it's a one-time consultation, and I give them as much information as I can about pain science. We're figuring out ways in the biological/psychological/social approach to pain and wellness in which we might be able to tweak a coping skill to take the edge off of pain, nausea, vomiting or bowel issues. Or I might be educating about how stress, anxiety and depression are very much related to their symptom presentation whether they know it or not."

In the CF clinic, she meets with children and their parents every Thursday morning along with other members of the multidisciplinary team.

She teaches children coping skills — enabling them to become more compliant with treatments or medications and helping them figure out a way to explain the disease to classmates or what to say to a friend who's invited them to a sleepover. She also talks to parents in the clinic and often checks in routinely with them between visits. "It's a lot for parents to handle," she said.

Francis says working with each patient population is different.

"I often get these big 'Aha!' moments with kids with GI issues and their parents. They've often never heard of the mind/body connection — about how their nervous system and their pain receptors are related to their chronic illness and how their mental health is pivotal to all of it," she said. "And I think I get the biggest movement with parents in the CF clinic, supporting them, normalizing what they're doing and helping them take small steps. It's a little bit being a friend and a teammate."

Children with CF produce thicker mucus, which can lead to respiratory issues, and many are unable to effectively digest food, particularly fats. They face about three to four hours of breathing treatments and chest physical therapy a day, and they must be compliant with medications to help them absorb their food and gain weight.

Levi and Carolina Taylor are doing well on their current therapies. They are both funny, outgoing, fearless children who are also very strong-willed, Erin said.

Francis, as their team psychologist, has been immensely helpful in keeping their family unit strong and functioning, Erin said. Levi spent the 2020 school year

at home during the pandemic, doing virtual school. Both parents have full-time, demanding jobs, so it was a struggle for the entire family.

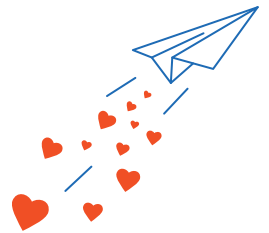
"Just having her to talk to my son about his feelings... there are a lot of things he will definitely open up to her about. He just loves talking to her, but she will be able to get in some questions about how he might be feeling about things like having to stay at home during the pandemic. She can get a baseline on his feelings, and if we see a spike in his behavior, she can talk to him and try to figure out what might be going on."

## Support for Cancer Patients

Children, adolescents and teens with cancer also benefit greatly from having a psychologist on their team.

Michelle Reising, PhD, and Shari Neul, PhD, both assistant professors of Clinical Pediatrics in the Division of Pediatric Psychology, are well integrated into the team of professionals working with cancer patients from the time of diagnoses and throughout their cancer journeys.

"Mental health is just as important as physical health," Neul said. "Our goal is first and foremost the



## Thank you ...

Support for psychological services in the Department of Pediatrics and at Monroe Carell Jr. Children's Hospital at Vanderbilt has been made possible by several generous gifts from various philanthropic families, individuals and businesses, including:

- ♥ Becky Long and family
- ♥ Brett Eldredge Family Foundation
- ♥ Friends of Monroe Carell Jr. Children's Hospital at Vanderbilt
- ♥ Lyle and Michelle Finley
- ♥ Lynn and Rick Scarola
- ♥ Panda Express®
- ♥ Sandy Cornelius
- ♥ The Brett Boyer Foundation
- ♥ The Sousan Family and Sacha Foundation
- ♥ Vanderbilt University Dance Marathon
- ♥ Other anonymous donors, generous individuals and businesses within the community

patient and their caregiver; to normalize and validate that what they're going through can be very difficult, and at the same time we try to build in hope and a sense of purpose to all of this — to help with acceptance and take the perspective that this is just another life journey. It's a different one, and it's tough, but we're here to support them."

Reising emphasized a cancer diagnosis ripples through the entire family, disrupting normal life.

"And that's before you even get to all of the things about treatment that are really stressful," she said. "I give parents and siblings permission to find the experience stressful and challenging. I think sometimes there's the perception that only the patient can be having a hard time, but that's just not the reality."

There's a culture in oncology about being brave and being a survivor and a fighter, a warrior and a hero. That can be empowering for patients, but it can also put a lot of pressure on children and young adults, Reising said.

"We try to help the families think about that in a broader way, that sometimes the braver thing to do is to let people know when you're struggling and ask for help. That can be very brave."

It's also important to acknowledge that teens with cancer are still just teens, and often what's causing their anxiety is not just having cancer.

"A lot of times you get a teenager alone, they're not worried about their chemo. They're worried that they got left off a text chain or their girlfriend broke up with them. Sometimes the big win is just being there for them," Reising said.

And sometimes there's mutual pretense — the teen is struggling, but doesn't want to say so in front of their parents, and vice versa. "So, they're grieving separately. Sometimes it's just helping families cope together."

Neul emphasizes that having cancer doesn't need to be "all doom and gloom." You can have positive growth as a result of going through this difficult experience. A number of patients talk to us about living in the moment and appreciating the things they have taken for granted. There's just a different approach to how you look at life and what's important and precious."

### Addressing Acute Needs

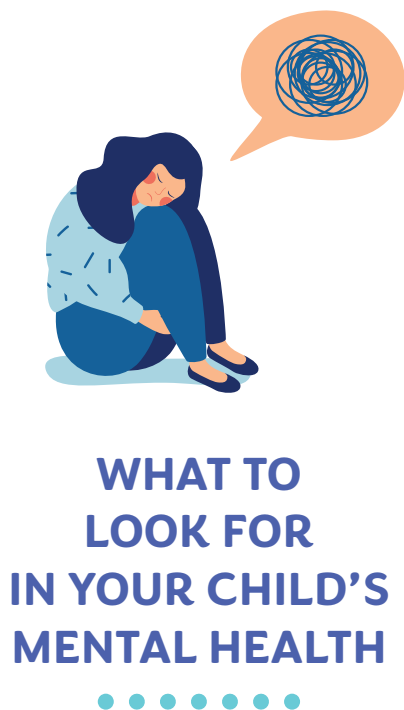
There's also a growing acute mental health need at

**Erin and Ron Taylor, below, with their children, Carolina and Levi, say the psychology team at Children's Hospital supports the entire family.**



SUSAN URBAN





## WHAT TO LOOK FOR IN YOUR CHILD'S MENTAL HEALTH

Keeping an eye on your child's mental health is a good idea, especially with the rising numbers of adolescent and teen suicides. Mental and physical health are treated differently in our society, "but you can't separate the two," said Heather Kreth, PsyD, assistant professor of Clinical Pediatrics in the Division of Pediatric Psychology. Here are some tips for monitoring your child's mental health.

- ★ It's a myth that asking someone if they have suicidal thoughts will cause them to be suicidal. If you notice a change in your child's mood lasting more than a day, or a sustained change in mood or sleeping habits and social engagement, talk to your child. Ask how they're doing,

and if they have had any suicidal thoughts. "We need to talk more about depression and mental health to reduce the stigma around it," Kreth said.

- ★ If your child makes a statement like, "I wish I wasn't here," or "It doesn't matter anyway," think about what they're trying to communicate to you.
- ★ If your child is depressed, never ask, "Why are you so depressed? You have everything you could possibly want." Kreth says you'd never say to a child diagnosed with cancer, "Why do you have cancer? You have such a nice life."
- ★ When your child comes to you and says something like,

"I'm really sad. I'm not doing OK," validate that and show compassion. Children whose thoughts are validated and supported are more likely to stay safe.

- ★ Look for signs of self-injuring. If you see evidence, ask your child about it.
- ★ Secure over-the-counter and prescription medications and firearms in the home. Keep firearms in a safe, locked place and store ammunition separately. If there are firearms in the home, there's about a 50% increase in risk for a successful suicide attempt. "People tend to think that children don't know where their firearms are hidden, but they're often very aware," Kreth said.

Children's Hospital. Heather Kreth, PsyD, assistant professor of Clinical Pediatrics in the Division of Pediatric Psychology, joined Children's Hospital in 2018 to help redesign the "boarding" process, where children and adolescents who visit an emergency room in mental health crisis have to wait for a bed to open up at a psychiatric facility.

These are often adolescents and teens talking about or attempting suicide. The COVID pandemic "poured salt in the wound that was already there" for children who were struggling with their mental health, Kreth said.

The CDC says there has been a 60% increase in the rate of suicide among 10- to 24-year-olds from 2007 to 2018. And it's the second leading cause of death among adolescents in the U.S., preceded only by accidents and followed by homicides.

"If you ask anyone on the street the top five leading causes of death in 10- to 25-year-olds, the vast majority wouldn't know that suicide is No. 2," Kreth said. "Tennessee ranks 42nd in the nation for access to mental health services. It's a national problem. We haven't invested enough money and infrastructure into really building those preventive and intervention services that could keep people out of the hospital," she said.

Kreth said there are a lack of qualified mental health providers for children and adolescents, resulting in pediatricians becoming the de facto psychiatric providers.

"On any given day we're taking care of between five and 30 children boarding at Children's Hospital waiting for psychiatric placement," Kreth said. "We don't have a dedicated space for these children, so they have to wait to be admitted somewhere. I was hired to think about how we provide the best possible care for children and families in a state of psychiatric crisis when we don't know the ultimate stop for them in their treatment, and how we do that in a dignified, individualized, trauma-informed way."

A 2018 Vanderbilt-led study published in the journal *Pediatrics*, "Hospitalization for Suicide Ideation or Attempt," looked at trends in emergency room and inpatient encounters for suicide ideation and attempts in children 5-17 years at U.S. children's hospitals from 2008 to 2015. The authors identified 115,856 encounters for suicide ideations and attempts in emergency departments in 31 children's hospitals. Nearly two-thirds of those encounters were girls and were highest among teens ages 15-17, followed by ages 12-14.

"When you look at the things we know work to help people receive treatment prior to being in crisis, we do not as a society value and fund those interventions in the same way we do other kinds of medical treatments," Kreth said. "We need to talk more about mental health and reduce the stigma around it. This is an emergency, and we need to be addressing this differently as a nation." 🦋



**Olivia Phillips, 14, is back to doing activities she loves like horse riding after receiving care for a thyroid condition.**





# BACK IN THE SADDLE

.....

Comprehensive team approach helps children  
with complex thyroid conditions and cancer

**OLIVIA PHILLIPS WAS** not feeling like herself, and she didn't understand why.

"I was having bad anxiety. I would have nausea all of a sudden and feel shaky, and my mind was all over the place," says the 14-year-old about her experience last year. "I had always been a happy, cheery, giggling type of girl, but then I just kind of slowed down."

Her parents were concerned. They knew she had been healthy at her annual pediatric checkup before seventh grade, but the symptoms had been happening in an on-and-off sort of way for several months. Perhaps they were related to typical middle school, puberty, adolescent changes, her parents considered.

Then her dad noticed a lump on Olivia's throat.

"We both felt bad about missing it," says Olivia's mother, Lori Phillips.

The lump turned out to be a thyroid nodule that was overproducing thyroid hormone — a so-called "hot" nodule. Surgery at Monroe Carell Jr. Children's Hospital at Vanderbilt to remove the nodule and part of her thyroid gland has restored Olivia to her usual self. "I feel pretty great," she says with a big smile as she sits cross-legged on the couch in her Hendersonville, Tennessee, home.

To care most effectively for patients like Olivia, Children's Hospital has established the Vanderbilt Pediatric Thyroid Nodule and Cancer Program. The program brings together clinicians from all the specialties that care for patients with thyroid nodules and cancer, among them endocrinologists, surgeons, pathologists, radiologists, interven-

tional radiologists and nuclear medicine specialists. They meet regularly as a team to review and personalize care for patients and to engage in research efforts.

"Children's Hospital has been taking excellent care of children with thyroid nodules and cancer since its inception, but before last year, clinicians in different disciplines didn't have an efficient method of collaborating with each other in the care of each patient," says Ryan Belcher, MD, MPH, assistant professor of Otolaryngology (ENT) - Head and Neck Surgery, lead ENT surgeon on the program team, and Olivia's surgeon. "We know that, as for other pediatric care that requires multiple disciplines, using a team approach equals better coordination of care and better outcomes for patients."

STORY BY LEIGH MACMILLAN  
PHOTOGRAPH BY ERIN O. SMITH

## Small gland, big impact

The thyroid is a butterfly-shaped endocrine gland located in the front of the neck, just above the collarbone. It produces thyroid hormones, which regulate metabolism, and the hormone calcitonin, which helps control blood calcium levels. In children, thyroid hormones are important for normal growth and development.

“The thyroid gland has an influence on every single organ system in the body,” says Sara Duffus, MD, assistant professor of Pediatrics and the lead pediatric endocrinologist for the Thyroid Nodule and Cancer Program. When the thyroid gland is not functioning properly or is removed, “it can have a huge impact on people’s lives — influencing their energy level and the way they feel on a day-to-day basis,” she adds.

Patients with thyroid disorders such as hypo- and hyperthyroidism, which can usually be treated effectively with medications, continue to be cared for by pediatric endocrinologists and their primary care physicians. The new program is designed for patients who have thyroid nodules, cancer and other thyroid conditions that require care from multiple specialists.

As a regional referral center, Children’s Hospital treats patients who may travel long distances to Nashville.

“Our goal is to really streamline care for patients, to coordinate visits so they can see all of the providers on their team on the same day,” Duffus says. “We want to make sure that we’re coordinating care and making it the least burdensome on families as we possibly can.”

Thyroid nodules are abnormal growths of thyroid cells. They may be discovered during a routine physical exam, by a patient noticing a lump — like Olivia’s family did — or by imaging that is being done for another reason. Typically, patients with a thyroid nodule have no symptoms.

In children under 12, boys and girls are equally likely to have thyroid nodules, but three times as many adolescent girls have nodules compared to boys, Belcher says. And although thyroid nodules are less common in children and adolescents compared to adults, there is a higher risk that they will contain thyroid cancer cells. Thyroid cancer is the second most common solid tumor in adolescent females. (Breast cancer, another hormonally driven cancer, is most common.)

Still, pediatric thyroid cancer is rare, and about 75% of nodules found in children and adolescents are benign (do not contain cancer), according to the American Thyroid Association (ATA).

A nodule is often first evaluated by physical exam, laboratory blood testing and ultrasound imaging. Specific features on the ultrasound — how the nodule looks, its orientation, the blood flow in and around it — may raise concerns that the nodule contains thyroid cancer cells. In that case, a fine needle aspiration biopsy could be recommended.

If cancer is discovered, treatment typically includes surgery followed by radioactive iodine therapy. Differentiated pediatric thyroid cancer has a survival rate

## HIGH RISK

### Obese children, young adults at higher risk for thyroid cancer

The incidence rate of thyroid cancer in children has been increasing over the last two decades, and Vanderbilt researchers wanted to explore possible causes.

“The one thing that kept popping up in our analysis of our cases of malignancy was the BMI (body mass index),” says Ryan Belcher, MD, MPH, assistant professor of Otolaryngology - Head and Neck Surgery.

In a large cohort of pediatric thyroid patients from Vanderbilt, the researchers found that the probability of a nodule being malignant was significantly associated with the BMI z-score (used for children, and also known as BMI-for-age percentile).

“We know that obesity is a risk factor for adult thyroid cancer, but there has been very little research on pedi-

atric thyroid cancer,” says Vivian Weiss, MD, PhD, assistant professor of Pathology, Microbiology and Immunology and senior author of the study reported in *JAMA Network Open*. “There is something going on with BMI that is helping to support, or is correlated with, malignancy. The mechanism is obviously something that we are interested in looking at.”

greater than 95% over 20-30 years of follow-up, the ATA reports.

Olivia and her parents were relieved when ultrasound imaging did not raise concerns about cancer. “They said it was a complex colloid cyst,” Olivia says, grinning and adding, “I learned some big terminology.”

Bloodwork and an iodine uptake scan supported the diagnosis of a “hot” nodule that was overproducing thyroid hormone, suggesting that removal of part of Olivia’s thyroid would be appropriate.

### A beacon for thyroid outcomes and research

Thyroid surgery in children and adolescents should be performed at centers like Children’s Hospital that have a full spectrum of pediatric care, according to ATA guidelines. That full spectrum includes all of the specialists that are part of the Thyroid Nodule and Cancer Program as well as pediatric anesthesia clinicians, child life specialists, nursing care and social support systems focused on children and families, says Monica E. Lopez, MD, MS, associate professor of Pediatric Surgery and the lead pediatric surgeon for the program.

Lopez joined Children’s Hospital last year from Texas Children’s Hospital in Houston, where she helped establish a multidisciplinary thyroid surgery team. In a July 2021 study in the *Journal of Pediatric Surgery*, Lopez and her colleagues reported that the multidisciplinary team approach resulted in excellent outcomes comparable to high-volume adult thyroid surgery programs.

“The importance of the team cannot be overstated. The complementary expertise and synergy from various disciplines benefit patient care,” Lopez says. “For every patient that is considered for surgery to have an opportunity to have their case discussed and their unique plan of



care made by experts who work together routinely and have access to the best evidence-based information really makes a big difference in long-term outcomes.”

Thyroid surgery has the potential to negatively impact the parathyroid glands — four pea-sized glands that lie just behind the thyroid and secrete parathyroid hormone, which controls calcium levels in the bloodstream. If the parathyroid glands are transiently or permanently impacted by thyroid surgery, patients require calcium supplementation up to four times a day.

“That’s not an easy medicine to take, so it’s definitely an outcome we try to minimize,” Duffus says. The program has launched a quality improvement project to implement guidelines for optimizing vitamin D and calcium levels before surgery and then studying outcomes after surgery.

In addition to outcomes that are unique to thyroid surgery, the team will be engaged in broad efforts to follow evidence-based standardized processes and to continuously evaluate outcomes.

“We will be keeping close track of all of our outcomes, not only clinical, but also process metrics, adherence to our guidelines, and what’s happening to patients in the long term. The type and extent of thyroid surgery that a child has first has a critical impact on how they do over time,” says Lopez, who also will be working to standardize procedures and improve

care across surgical disciplines in her role as vice chair for Surgical Quality and Evidence-based Programs in the Department of Pediatric Surgery.

“Our goal is to be a beacon for the Southeast and for the United States, to be a leading program for pediatric thyroid clinical outcomes and research,” Belcher says. “It’s ambitious, sure, but we have all the pieces to become a premier national program.”

For Olivia, the remaining half of her thyroid is functioning normally, and she doesn’t have to take medication. In addition to her usual activities like horse riding, church youth group and helping in the church nursery, she was eager after the surgery to start new interests such as karate and voice lessons, school theater club, and running for a student government office.

“She’s a different person this school year,” says her mother.

“Knowing that the anxiety and the way I was feeling last year was from my thyroid, my goal this year was to be more outgoing and to do more things,” Olivia says. “I’m reaching that goal.” 🦋

*Members of the Vanderbilt Thyroid Nodule and Cancer Program include Belcher, Duffus, Lopez, pathologists Vivian Weiss, MD, PhD, and Huiying Wang, MD, radiologists Rekha Krishnasarma, MD, and Christopher Baron, MD, and nuclear medicine specialists Aaron Jessop, MD, and Chirayu Shah, MD. To make an appointment, call 615-322-3301, or request a referral from your pediatrician.*

## NEW RESEARCH

### Molecular profiling of pediatric thyroid cancer

Up to 30% of the time, a thyroid nodule biopsy is atypical — it’s not clear whether the nodule contains cancer.

Vivian Weiss, MD, PhD, Huiying Wang, MD, and colleagues examined results from pediatric thyroid fine needle aspiration biopsies spanning two decades at Vanderbilt and correlated the biopsy results with the histopathology of surgically removed tissue. Their study in *Cancer Cytopathology*, the largest of pediatric thyroid nodules to date, found that two of three “indeterminate” biopsy categories had lower rates of malignancy than previously reported.

“If a child has an atypical biopsy, they go straight to surgery, and the complication risk following surgery is higher for children than for adults,” says

Weiss, assistant professor of Pathology, Microbiology and Immunology.

The trouble, Weiss notes, is that the changes in the genome that cause thyroid cancer in children are different than the molecular changes in adult thyroid cancer.

“An adult who has an atypical biopsy will get molecular testing or a follow-up biopsy, or both, but we don’t have approved molecular testing for children,” Weiss says.

Weiss and her colleagues, with collaborators at University of Pittsburgh Medical Center, have sequenced the genomes of 100 pediatric thyroid nodules — 50 benign and 50 malignant.

“Preliminarily, it looks like molecular testing may work very well for predicting malignancy in children,” Weiss says.

“We are so excited about this work. With a better understanding of the molecular changes that cause thyroid cancer, we’ll be closer to providing more personalized therapy for children.”

Weiss and her group also have used surgical specimens to grow “organoids,” three-dimensional aggregates of cells that include tumor cells and other cell types that surround and support the tumor. They have grown more than 60 organoid cultures that span a range of disease, from less aggressive to highly lethal cancers, along with companion metastatic lesions. The researchers study the organoids in culture and also as xenograft tumors in animal models.

“We’re using these pediatric thyroid cancer organoids

to better understand the disease, to understand what causes aggressive disease, and to look for new treatments for pediatric thyroid cancer,” Weiss says.

These resources are unique to the group at Vanderbilt.

“We’re going to make significant advances for our patients thanks to the great teamwork from our surgeons, endocrinologists and radiologists who talk to patients about the importance of research and thanks to our fantastic patients who have consented to contribute to this research,” Weiss says. “Science is better with a team.”

*The V Foundation and the Children’s Cancer Research Fund provide the main funding support for this research.*





●  
**Cassie Kroll  
successfully delivered  
son, Emmett, now 16  
months old, after being  
diagnosed with a  
potentially fatal fetal  
condition.**



# Care Before Birth

## Pioneering care for high-risk pregnant women and their unborn babies

**CASSIE KROLL WAS** surprised and overjoyed to find out she was pregnant with her third child. She wondered how her husband and two daughters would react, what color she would paint the nursery, and she thought about baby names. Kroll was filled with excitement. But paired with that excitement was a deeply held fear.

During her second pregnancy, Kroll and her baby were diagnosed with fetal anemia — a condition that occurs when a mother and baby have incompatible blood types. When a baby has fetal anemia, the mother's immune system reacts to her baby's blood as a foreign substance and creates antibodies to attack the fetal red blood cells. Without treatment, fetal anemia can lead to fetal heart failure and death.

Upon finding out she was pregnant a third time, while her husband was stationed at Fort Campbell in Clarksville, Tennessee, Kroll immediately sought care at Monroe Carell Jr. Children's Hospital at Vanderbilt, which offers specialized comprehensive maternal fetal care.

"We knew about the fetal anemia this time around; we knew it would be a problem; and we knew the condition gets worse with each pregnancy. As soon as we found out I was pregnant with Emmett, we didn't wait around — we went straight to Vanderbilt," Kroll said.

There, Kroll met Lisa Zuckerwise, MD, assistant professor of Obstetrics and Gynecology at Vanderbilt University Medical Center and associate program director of the Maternal Fetal Medicine fellowship at Children's Hospital, and Matthew Grace, MD, assistant professor of Obstetrics and Gynecology, who were her physicians throughout the pregnancy.

"Dr. Grace and Dr. Zuckerwise truly cared. Anytime I mentioned that something didn't seem right or that I was worried about Emmett, they heard me out and got me in to see someone immediately. They were reassuring, and they always told me that if something felt off, they would trust my instincts and bring me in," Kroll said.

STORY BY EMILY STEMBRIDGE  
PHOTOGRAPH BY JULIE IGO PHOTOGRAPHY

## A hub of care for women and babies

For nearly 25 years, an experienced team of Vanderbilt experts in obstetrical and pediatric medical and surgical specialty care has helped expectant parents like the Krolls navigate the complex decision-making process for babies at risk for or born with birth defects or abnormalities.

Vanderbilt launched pioneering care and a hub of services to help women with complicated, high-risk pregnancies, and to provide the best possible outcomes for their babies. A major gift from the Junior League of Nashville in 2006 helped establish a fully coordinated center with an administrative staff to connect experts all over campus.

In September 2021, Children's Hospital and VUMC experts opened The Reed Family Maternal Fetal Clinic, building and expanding upon that decades-long foundation to provide comprehensive maternal fetal care. The new clinic, located on the ninth floor of Children's Hospital, is supported by a philanthropic gift from Brenda and Colin Reed and family in honor of the lifesaving fetal care for their twin granddaughters, Alice and Olivia, now 5.

The Reed Family Clinic is unique in its ability to harness the power of many specialties across VUMC and Children's Hospital to provide compassionate, comprehensive care.

The maternal fetal team offers care to more than 2,500 expectant mothers and their babies from across the country every year, a number that is projected to grow in the coming years with the added space. Specialists will also expand the size and scope of care to diagnose and treat a range of conditions, including congenital heart defects, spina bifida and pulmonary malformations.

"Our patients have access to a very large team of maternal fetal medicine specialists, pediatric subspecialists, pediatric cardiologists and pediatric surgeons, and we also have access to ECMO (lung and heart support) technology," said John Pietsch, MD, professor of Pediatric Surgery and Pediatrics, co-director of the Center for Advanced Maternal Fetal Care and founder of the VUMC ECMO program. "That is unique to Vanderbilt. We take care of sick babies and mothers — accommodating high-risk, complicated cases and involving a multidisciplinary team in the care of the baby and family before and after birth."

There are several specialized clinics within Maternal Fetal Medicine that are equipped to handle complex and high-risk pregnancies — among them are a congenital cardiac clinic, an HIV clinic and a critical care clinic, which rely on surgeons, physicians, nurses and social workers to care for patients and their babies, says Kelly Bennett, MD, MS, director of the Division of Maternal Fetal Medicine and director of the Fetal Center at Vanderbilt.

The Fetal Cardiology Clinic is a particularly unique subset of Maternal Fetal Medicine. The clinic

combines both the Fetal Center and the Pediatric Heart Institute to create a specialized health care plan for babies, which includes counseling, medical management and therapies, and delivery planning. Most babies with congenital heart disease are diagnosed before birth due to the overarching fetal echocardiogram program available through the Fetal Center.

"The patient's interests are always first," Bennett said. "Our patients are going through a stressful time in their lives, and we always want to take the most compassionate approach possible to care for them."

The team — from the schedulers to nurses to doctors and every person in between — strives to provide individualized and personalized care for all members of a family, said maternal fetal medicine nurse, Sarah Kremer, RN.

"As nurses and patient care coordinators, we are given the opportunity to help develop and manage a plan of care that addresses both maternal and fetal diagnoses," Kremer said. "Our patients' medical histories are often very complex. When patients are diagnosed with a fetal condition, it increases the necessity for coordination of the remainder of their prenatal care, fetal surveillance, delivery planning and often surgical intervention. We pride ourselves on coordination of care for every patient experiencing a high-risk pregnancy that comes through our clinic."

Every family that walks through the doors of The Reed Family Clinic has a plan created to fit their circumstances and needs.

"No one enters pregnancy expecting to need care at a fetal center like ours, so it is our priority to provide compassionate, informative and loving care of our families facing often difficult and scary diagnoses," said Zuckerwise. "Cassie and Emmett's story speaks to our commitment to not only hear, but to truly listen to our patients each time we see them, to tailor our care to their individual needs, and to remember that our fetal patients are also part of a family that benefits from our comprehensive care."

## A happy, healthy baby boy

Kroll was one of the highest-risk patients, requiring consistent monitoring to measure Emmett's red blood cell count. If his numbers were too low, Kroll would undergo blood transfusions to get Emmett's blood cell count back up.

"Since Emmett was too early for delivery at the time of diagnosis, the only way to keep him safe so that he could grow and develop was by using in utero transfusion," said Zuckerwise. "During these procedures, we were able to give Emmett carefully selected, safe donor blood through his umbilical cord with the goal of restoring his blood cell count back to normal."

Kroll and Emmett endured two blood transfusions before his birth. Before Kroll's first transfusion, she was terrified that she would experience complications. By the time she was being rolled back to the operating

**The maternal fetal team offers care to more than 2,500 expectant mothers and their babies from across the country.**



room, she was having a full-blown panic attack and struggling to breathe. Grace stood by her side, calming her and addressing her specific concerns.

"I don't know how he stayed so calm and reassuring," Kroll said. "I'll never forget that moment. I was panicking, and he knew exactly what to say to help."

Following a second transfusion and signs that Emmett was in distress, Kroll's maternal fetal team decided that it was time for him to be delivered at 32 weeks.

She worried that on top of a blood condition, Emmett would be born prematurely and face additional complications. She also had concerns remaining from her last pregnancy that were quickly addressed by the NICU team, who reassured her that they had Emmett's bed ready as soon as he arrived.

Children's Hospital's level IV NICU, the highest level of NICU care, often works closely with Maternal Fetal Medicine to determine optimal timing and location of delivery for mothers and their babies. Neonatology clinicians see families in the clinic to provide counsel about what to anticipate for the care and needs of the baby and what to expect in the first few moments and days of their baby's life. NICU clinicians recognize that maternal health is paramount to the continued health of babies, and as a result, NICU care is intertwined closely with maternal fetal care.

When it came time for Emmett's birth, the team again jumped into action, not only caring for Kroll and Emmett before, during and after the birth, but also arranging with the Army for her husband, who was on rotation in Europe, to be flown back to Fort Campbell in time for Emmett's birth.

"Being involved in the care of patients like Cassie and Emmett is my greatest privilege," said Grace. "We had the opportunity to provide reassurance and comfort to Cassie during a time when she was most fearful. We then leveraged the expertise and experience of a multidisciplinary team that can only be found at a place like Vanderbilt to provide the best possible treatment and care."

Emmett Matthew Lee Kroll was born on Oct. 17, 2020, at 3:37 a.m. and stayed in the NICU for 24 days. At 3 months old, after five additional blood transfusions, he was cleared from needing any more transfusions.

Emmett, now 16 months old, is a happy, healthy baby. He is named after Grace, whose first name is Matthew, and creatively named "Lee" after Zuckerwise, whose first name is Lisa. "We really wanted to honor them with his name because they were amazing throughout this whole thing. They became like family to us," Kroll said.

The Krolls often send photos and videos of Emmett to the team to show his progress.

"Cassie and Emmett's success could only be accomplished through collaboration of many teams including maternal fetal medicine physicians, nurses and sonographers, neonatology, blood bank and transfusion medicine, and obstetric anesthesia," said Zuckerwise. "Seeing Emmett healthy and growing reminds us daily why we chose to work in maternal fetal medicine and specifically care for families facing difficult and often life-altering fetal diagnoses." 🦋

## SPECIALIZED CARE FOR PREGNANT WOMEN WITH CONGENITAL HEART DISORDERS

Maternal Fetal Medicine is home to a variety of specialized clinics for the complex care of high-risk mothers and babies. One of those clinics, led by Jennifer Thompson, MD, associate professor of Obstetrics and Gynecology, is focused on caring for pregnant mothers with congenital heart conditions. There are very few congenital heart clinics for pregnant women in the country that offer such effective, collaborative care, said Kelly Bennett, MD, MS, director of the Division of Maternal Fetal Medicine.

The patients seen at this clinic are at a higher risk for complications during pregnancy and labor, such as arrhythmias, preeclampsia or growth abnormalities for their babies.

"The goal of our clinic is to have coordinated care for our patients with complex cardiac disease and to ensure

they're having all of their concerns addressed — from ensuring proper fetal growth of their baby by using ultrasounds to performing maternal echocardiograms and coordinating care across cardiology and obstetrics," said Thompson.

Thompson and the clinic commonly see patients with ventricular septal defects (a hole in the heart), atrial septal defect history, patients who were born with single ventricles that were later repaired, and a variety of other congenital heart conditions. "We see the full scope of women who were born with congenital heart disease," she said.

The clinic is a prime example of the power of collaboration of care across disciplines at VUMC, as Maternal Fetal Medicine works closely with the Department of Cardiac Surgery at every step of a patient's journey.

"It's such an advantage for physicians across disciplines to be able to see patients in the same space in real time to talk about the condition and how the pregnancy is progressing," said Thompson. "If we have patients concerned about possible interventions to achieve the best outcomes for their babies, we're able to address those concerns collaboratively in one shared space. This is beneficial not only for physicians, but also the patients."

Ultimately, the collaborative clinic creates an environment that is solely focused on patient-centered care. "We're able to coordinate care so patients can see us all on the same day or within the same site," said Thompson. "As clinicians, we're all able to talk together and put the patient at the center of our practice."

# faces of hope

MEET THE PEOPLE WHO BRING HOPE TO FAMILIES EVERY DAY

Monroe Carell Jr. Children's Hospital at Vanderbilt delivers high-quality care, creates a welcoming environment for parents and children, and serves as a resource for the surrounding community. None of these things would be possible without the people who make up Children's Hospital – from the physicians and nurses who provide care for sick children to child life specialists, social workers, pharmacists and more.

This wide array of expertise means Children's Hospital is equipped to handle any issue a child may face – no matter how complex.

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STORY BY JILL CLENDENING

*The COVID-19 pandemic, which has forever altered millions of lives, has also notably affected care teams both at Monroe Carell Jr. Children's Hospital at Vanderbilt and at community-based pediatric practices. As clinicians balance providing outstanding care for children with sustaining their own well-being, what has emerged are improved ways of accomplishing both.*

## Chetan Mukundan, MD, FAAP

COMMUNITY PEDIATRICIAN

At the start of the COVID-19 pandemic, local pediatrician Chetan Mukundan, MD, FAAP, became one of the first individuals in Tennessee to test positive for the virus.

While this was understandably stressful, it put him in a unique position to better meet the needs of both patients and his practice. And his feeling that pediatric practices are one big family, and not competitors, was underscored by countless messages of concern from his colleagues.

The experience also reminded him of the importance of taking time out for little things that support a well-balanced life, such as enjoying a long beach weekend with his wife, Celeste, and their

three grown children – Chathan, Chloe and Luke – or taking their beloved French bulldog, Brie, for a walk at Radnor Lake.

"I was not very sick, and it ended up being a blessing, although I didn't think so at the time," he said. "I had the antibodies really up to the point where I got my first vaccine in December 2020."

Because of his early-acquired immunity, he has been able to safeguard others at his Green Hills office by doing patients' COVID-19 swab tests himself. When one patient tested positive, rather than having the practice inundated with anxious classmates who were also his patients, Mukundan conducted "Swabapalooza," a drive-up testing event in the affected school's parking lot.

"The kids loved it!" he laughed. "Parents decorated their cars, and the kids stayed inside vehicles as I swabbed them. Thankfully, nobody was positive. One of the things I love most about my job is that we have the control to do what we know will be best for our patients and their families. This was something we could do because we're always looking at the big picture of how we can make our health care system better."

A remote appointment check-in that allows families to bypass the waiting room led to another practice improvement. An office renovation halted during the pandemic



SUSAN URBAY

was redrawn with a smaller waiting area, with that space reclaimed for an additional exam room.

Mukundan has practiced pediatrics in Nashville since 1997, and in 2006, he joined Heritage Medical Associates, one of the largest independent, multispecialty physician groups in Middle Tennessee. He's a proud "Triple 'Dore,'" he attended Vanderbilt University (VU) for his undergraduate and medical school years, and he has a son attending VU as an undergraduate.

Today, he works alongside one of his medical school mentors, Bob Mallard, MD, and that relationship has fueled his own commitment to mentoring young



**"One of the things I love most about my job is that we have the control to do what we know will be best for our patients and their families."**

- CHETAN MUKUNDAN



# faces of hope

MEET THE PEOPLE WHO BRING HOPE TO FAMILIES EVERY DAY



**“By using technology to better communicate progress, if they’re having a problem, we could catch that earlier and manage it as an outpatient.”**

– EUNICE HUANG

doctors and medical students. Mukundan regularly participates in VU’s Residency Career Day, sharing the nuances of private pediatric practice.

Mukundan also enjoys rounding on his patients whenever they’re inpatients at Monroe Carell Jr. Children’s Hospital at Vanderbilt and appreciates the collaborative spirit as everyone works together to provide the best possible care for them.

## Eunice Huang, MD, FACS, FAAP

ASSOCIATE SURGEON-IN-CHIEF

**W**hen Eunice Huang, MD, FACS, FAAP, associate surgeon-in-chief for Monroe Carell Jr. Children’s Hospital at Vanderbilt, moved to Nashville in 2020, her expertise in quality improvement and

biomedical informatics landed her a lengthy list of clinical and institutional leadership roles that brightly painted her workday calendar.

In fact, Jeffrey Upperman, MD, surgeon-in-chief for Children’s Hospital and chair of the Department of Pediatric Surgery, recruited her for the new role of chief surgical quality and innovations officer. In this position, she’s assembled a team of physicians, nurses and others from all pediatric surgical services to identify areas for improvement, generate solutions, then apply the resources needed to move solutions into practice.

“A surgeon spends many hours just taking care of patients,” she explained. “If they notice an issue, they often don’t have time to consider the many elements needed to reach a solution. Because we have more than 10 surgical specialties here with many moving parts and different workflows, having a central team that is knowledgeable about the uniqueness and challenges of the space allows us to

make quality improvements faster and more effectively.”

Huang, previously a professor of Surgery and Pediatrics at the University of Tennessee Health Science Center College of Medicine as well as chief research biomedical informatics officer and surgeon at a Memphis children’s hospital, has a particular interest in caring for patients with Hirschsprung’s disease and anorectal malformations.

One of her goals is to further harness the virtual connectivity that was invaluable during the pandemic for these patients, by developing an app to track a child’s progress after they leave the hospital or clinic. Information would be automatically shared with their care team.

“These children often still have some bowel dysfunction,” she said. “You have to help them as they go through the different developmental stages so they hit each milestone properly. By using technology to better communicate progress, if they’re having a problem, we could catch that earlier and manage it as an outpatient.”

While technology has been great for maintaining some vital connections, Huang said a key thing she’s learned from the pandemic is that we all crave in-person interaction — even something as simple as a quick check-in with a colleague.

Especially precious to her are the weekends she spends with her three sons and husband, Raymond Gardocki, MD, a minimally invasive spine surgeon at VUMC. Their sons share her passion for playing the piano, and the family has recently been cooking traditional Chinese dishes together. Huang also plans outdoor adventures for her family such as a recent whitewater rafting/camping excursion along the Colorado River. 🦋



DOAN JONES

## personal perspective

FIRST-PERSON ESSAY



Rebecca Adcox  
(right) with her  
mother, Becky  
Roach

# Pay it forward

*A journey from patient to nurse*

STORY BY REBECCA ADCOX  
PHOTOGRAPH BY ERIN O. SMITH

I don't remember much about when I was diagnosed with or treated for acute myeloid leukemia, a cancer of the blood in the bone marrow. I was just 3 years old. But that one word — “cancer” — set me on a lifelong career path.

By age 14, I vehemently declared I would become a pediatric oncology nurse, and not just at any hospital. I knew I wanted to work at Monroe Carell Jr. Children's Hospital at Vanderbilt.

My memories of my cancer journey live in the form of two small scars from where my central line, used to administer chemotherapy, had been placed.

I have photos my mother took of me, at what was known at the time as Vanderbilt Children's Hospital, in a ladybug Halloween costume I got from one of the Child Life specialists. One of the many kind nurses also bought me some ladybug rain boots to go with the cos-

tume. I had the biggest smile on my face in the photo.

What I can't recall, my mother shares in stories about the amazing care I received and about the toys people gave me to play with during my hospital stay. One of nurses, Anthony, still works at Children's Hospital.

Once in remission at age 5, I began attending Camp Horizon, a summer camp in Kingston Springs, Tennessee, for children who have or are in remission from cancer.

After going there for nine years, first as a camper, then as a camp volunteer, I saw the resilience the kids had, and how quick they were to bounce back and not let the trials of cancer affect them. They would go to camp to be kids and to have a good time. So, that is really where I found my passion to get back to Vanderbilt as a nurse.

I've also seen people over the years at that camp who came back to be nurses at Vanderbilt. I knew I wanted to do that too, because these people have helped in my healing journey.

While in school at University of Tennessee-Chattanooga, I was able to start work at Children's Hospital as a care partner, first one day a week and then more frequently. I graduated from UTC in December 2021, and I began my nurse residency in pediatric oncology at Children's Hospital in February (2022).

I am honored that I get to be part of kids' healing journey, whether they have a bump on their head or are sick in the intensive care unit. I know the child, or the parents, may be scared because of something small or something big. To help ease the fears they have or to help distract from the fear the child might have, has been a big part of my job that I have loved.

There are nurses I've met who work on the oncology unit who also had cancer as a child. I knew if they could do it, I could do it. I would say if you have a goal, and you want to give back, don't be afraid to chase after that goal. I've chased my goal for the last nine years. So, make your dreams a reality. You can give back to the people who have helped you, whether that was 20 years ago, or two years ago. 🐞





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# HOPE

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