2024 | 2025

YEAR IN REVIEW

DEPARMENT OF PEDIATRICS
ANNUAL REPORT

musc Children's Health
Medical University of South Carolina

Contents

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Message from the Chair

left to right: Jocelyn Jenkins, Shawn Jenkins, Dr. Charles P. Darby, Jr., Dr. Andrew Atz, Dr. David Cole

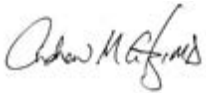
I want to thank you for taking some of your valuable time to learn more about the Dr. Charles P. Darby, Jr. Department of Pediatrics at the Medical University of South Carolina. For over 200 years, MUSC has cared for the people of South Carolina. When the first pediatrician arrived in Charleston in 1921, MUSC's Department of Pediatrics was born, and since then we have been taking care of South Carolina's sickest and most complex children and striving to innovate for all children. When you reach milestones such as these, it lends itself to a time of reflection, and I invite you to explore this annual report and learn more about where we are today. The sections in this report describe some of the works of a truly resourceful and dedicated team of pediatricians, educators, and subspecialists joined together to heal, innovate, teach, and reimagine futures for our children.

By looking to the past and where we started, it helps to lay the groundwork for us to solve problems for children future and present. We have extraordinary clinical programs and take care of some of South Carolina's children that really cannot be cared for elsewhere. We have twenty clinical divisions and collaborate broadly with other departments to ensure that care provided at Shawn Jenkin's Children's Hospital and other sites throughout our region is what we would want our own children to receive if they needed it. During the 2024-2025 fiscal year we expanded our already stellar list of specialists to include an Oncology Nocturnist and South Carolina's only Pediatric Cardiac Psychologist.

MUSC's Department of Pediatrics established the first residency program in 1937, and since then we have never stopped training future pediatricians and specialists in ways that help them care and lead at the top of their fields, wherever they might be. The 2024-2025 year was eventful as we added fellowships in Infectious Disease and PICU, ensuring even more focused point of care for generations to come.

Above all, from our beginnings until today and beyond, we are here for children. We have been making a difference in South Carolina and for children everywhere for over 103 years. It is the most exciting time in the history of medicine to provide real impact for childre—through the tools of science, care, and healing. Join us through this report to learn more about why that is true and what we are doing.

With much appreciation,



Andrew M. Atz, M.D.

Championing Primary Care and Community Outreach for At-Risk Rural SC Families

For Dr. Luke Edmondson, medicine and caring for the community as a whole has been a way of life in his family for many generations. "My father was an Ob/Gyn in our small town," he says. "And my grandfather was a general practitioner, which included caring for kids, adults—everyone. So, I think I understood from an early age how important total care was for these families."

It's these early experiences that helped build the foundation of Dr. Edmondson's practice in the rural heart of South Carolina. Through a combination of primary care and evidence-based outreach programs, Dr. Edmondson is making a lasting difference in the lives of families who often face the toughest barriers to healthcare, and it's a mission that takes him beyond the exam room.

Dr. Edmondson serves a large population of low-income, rural families who often struggle with limited access to healthcare, transportation, and social support. "I always knew I wanted to do Pediatrics because I like kids," he says. "And I identified early on that I wanted to focus on Primary Care. I came to the Medical University of South Carolina in 2014 for their Primary Care program—I was one of the first two Primary Care track residents—and I've been in South Carolina ever since."

Through his work, he provides comprehensive and compassionate primary care for children from birth through adolescence, ensuring they receive timely check-ups, immunizations, and screenings. But his care model extends further by supporting the entire family unit and connecting them with services that build resilience and promote healthy development.

One of the key components of Dr. Edmondson's outreach is his collaboration with **Healthy Families America (HFA)**, a nationally recognized home visiting program. HFA focuses on nurturing parent-child relationships in families facing challenges such as poverty, domestic violence, or substance abuse. Dr. Edmondson works closely with HFA–trained home visitors to identify families in need and refer them early so that long-term, trusted support can be built.

"If our providers see a family, with a newborn typically, and we feel that that family is high risk or that would benefit from the program, we make a referral to the program coordinator and then they reach out to the family," says Dr. Edmondson. "The home visitor is there to help both the mom and the child, so they focus on everything from developmentally appropriate toys and activities to mom's mental health and post-partum depression screening. They also help with access to benefits, like accessing WIC or signing back up for Medicaid or finding access to a food pantry. And you know, those are all tangible things. But more than anything, they offer support for moms that can sometimes be really isolated."


Dr. Luke Edmondson

"One day, I would like to see the programs available for every mother and child—those who don't have the same privileges that others do. Of the children in need, we know about in South Carolina, we're reaching less than 10% of those. Our goal for the future is definitely more home visits."

In tandem, Dr. Edmondson partners with **Nurse-Family Partnership (NFP)**, another evidence-based program that pairs first-time, low-income mothers with registered nurses. Working with women who are enrolled before 28 weeks of pregnancy, these nurses provide education, encouragement, and healthcare guidance during pregnancy and through the child's first two years of life. Once the child reaches 2, they graduate from the program, and a special ceremony is held. Often these ceremonies are filled with a lot of love, happy tears and community spirit.

"The home visitor will stand up and show a picture of themselves with the mom and the baby, as well as some flowers and a little gift for them. The moms and babies come up and everybody claps for them, and we take their picture," says Dr. Edmondson. "And a lot of times the moms will want to say something about their home visitor. You know, it's just it's really touching just how grateful they are for the program and how much you know they needed that support during a really tough time."

The support HFA and NFP provide goes well beyond developmental guidance. Families report gains in literacy, safer home environments, and better mental health. For instance, during home visits, mothers are coached on safe-sleep practices, breastfeeding, developmental milestones, postpartum depression screening, and goals like employment, education, and stable housing.

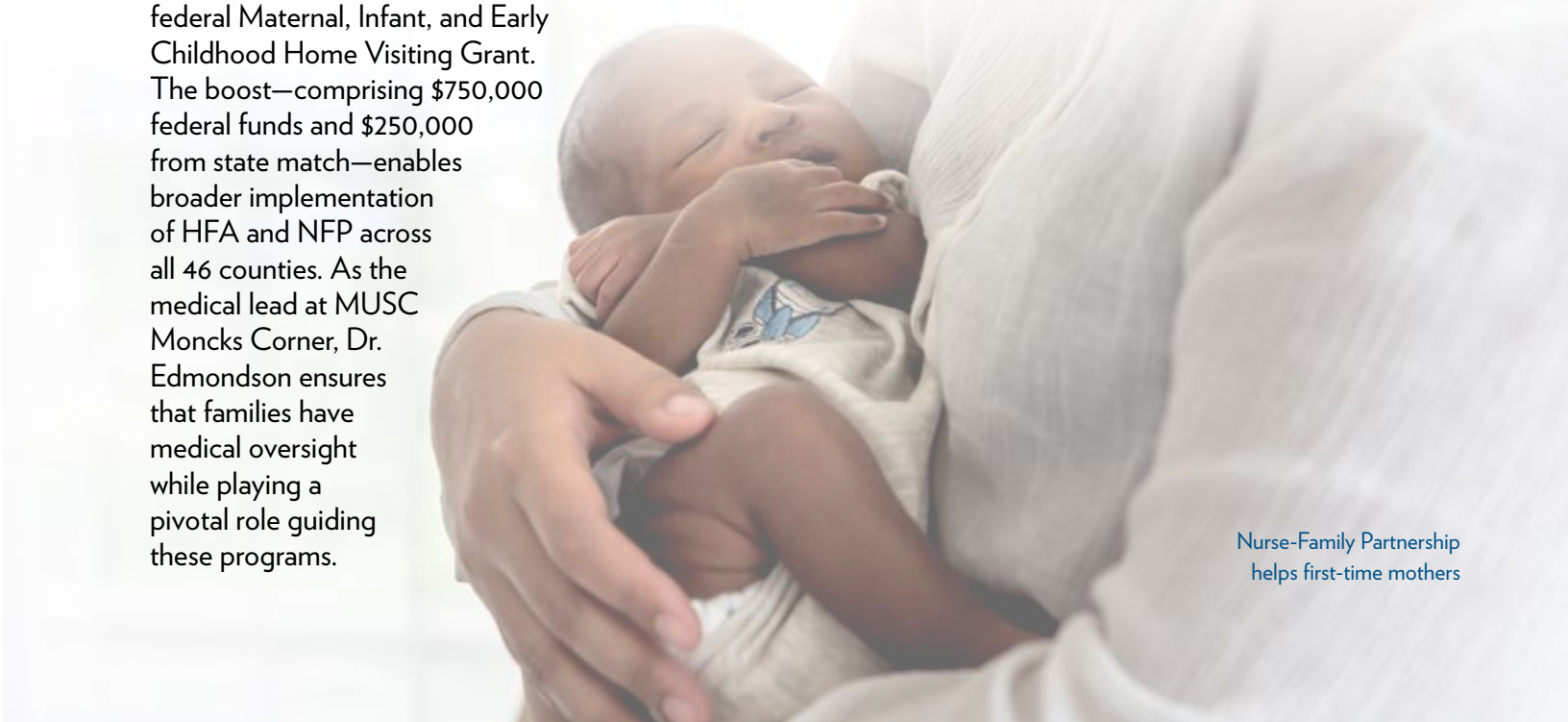
In July 2024, Children's Trust South Carolina launched a major expansion of in-home visit funding, securing $1 million for local outreach under the federal Maternal, Infant, and Early Childhood Home Visiting Grant. The boost—comprising $750,000 federal funds and $250,000 from state match—enables broader implementation of HFA and NFP across all 46 counties. As the medical lead at MUSC Moncks Corner, Dr. Edmondson ensures that families have medical oversight while playing a pivotal role guiding these programs.

"One day, I would like to see the programs available for every mother and child—those who don't have the same privileges that others do. Of the children in need, we know about in South Carolina, we're reaching less than 10% of those. Our goal for the future is definitely more home visits."

"Also, something that most people don't know is that programs like these are incredibly cost efficient. For every dollar that we spend on the program, it's about $5 in return when 20 years down the road you have a kid that doesn't drop out of school or become involved in crime."

In serving his community, Dr. Edmondson, a former biology major, often views his practice as an ecosystem where the many parts are responsible for the life of the organism as a whole.

"When I went into my training, I kind of figured the medicine is always going be the hardest part, right? It's challenging knowing what to do and what's the best thing," he says. "But it didn't take long for me to realize that the impact that I have as a physician, while it can be very profound sometimes is, is really can be very limited. These things that these families really need help with—like having a safe place for that child to live, having food to eat, mom getting a better job or getting out of an unsafe environment—those things are going to have a much longer lasting impact than me giving a kid a prescription. These are things that impact kids' health that I can't really do that much about, and home visiting programs are a way to address those disparities."



Nurse-Family Partnership helps first-time mothers

Duke Endowment Empowers Department of Pediatrics' Project to Support Spanish-Speaking Families Through Telehealth

The Department of Pediatrics' Rosmary Ros-Demarize, Ph.D., has been named the recipient of a significant grant from The Duke Endowment. The prestigious award, valued at $1.4 million, will support Dr. Ros-Demarize's collaborative project, **Fostering Healthy Relationships Through Tele PCIT for Spanish Speaking Families of South Carolina**.

The initiative, developed in partnership with the Department of Psychiatry and project Co-Principal Investigator Alexis Garcia, Ph.D., is aimed at improving parent-child interactions in underserved Spanish-speaking families and plans to leverages telehealth to provide **PCIT International's** tailored guidance to families before potential trauma emerges.

"Our research will seek out Spanish speaking families who have specifically faced at least one adverse childhood experience, which puts them at the highest risk," says Dr. Ros-Demarize.

The project addresses a critical need within the Spanish-speaking community, which often faces barriers to accessing mental health and parenting support. Many families in this population experience stressors like economic hardship, language barriers, and limited access to culturally competent care, all of which can strain parent-child relationships and increase the risk of adverse experiences.

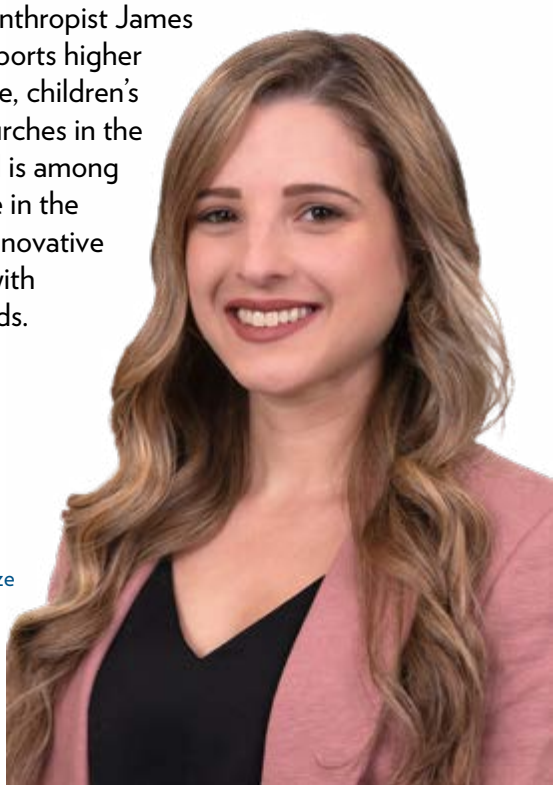
"Parent-Child Interaction Therapy (PCIT) is an intervention that is targeted to improve behavior challenges as well as improve parenting practices and parenting stress," says Dr. Ros-Demarize. "So, we hope that by helping these families, we're really improving their overall well-being and mitigating some of that risk for traumatic experiences or for abuse later on."

Recognizing the urgency of preventive measures, the Dr. Ros-Demarize's program focuses on fostering positive parent-child interactions through accessible, early interventions. These interventions focus on enhancing family strengths and addressing stressors before they escalate into trauma. Using telehealth as a delivery model allows the program to overcome geographic and logistical challenges while maintaining privacy and flexibility for families.

The three-year grant is set to commence early 2025, with the first two years focusing on evaluating the outcomes of the study and determining the efficacy, and the third year reserved for community engagement and hopefully training community providers in the intervention and increasing the treatment's reach.

"My passion, and my ultimate goal for the project, is to bring good quality care to families in the biggest need and give parents the tools they need to help their children thrive and be successful as a family," says Dr. Ros-Demarize. "I always tell parents 'I want to help you help your child,' so it really emphasizes that the parent is the key ingredient in the work we do. Empowering them is what is most important to me."

The Duke Endowment, established in 1924 by industrialist and philanthropist James Buchanan Duke, supports higher education, health care, children's welfare, and rural churches in the Carolinas. The award is among the most competitive in the region, celebrating innovative research that aligns with pressing societal needs.



Dr. Rosmary Ros-Demarize

“Parent-Child Interaction Therapy (PCIT) is an intervention that is targeted to improve behavior challenges as well as improve parenting practices and parenting stress.”

MUSC's Nationally Ranked Pediatric Hematology-Oncology Program Leads State in Care and Training

Michelle Hudspeth, M.D., always knew she wanted to be in pediatrics, but it was a chance summer internship at a children's hospital during her undergraduate years that helped her discover her passion for Hematology and Oncology: "For me it was the perfect combination of intensity from the perspective of the science, but as well as the perspective of having those relationships with patients and their families and helping guide them through a seemingly impossible situation."

As the Dr. Charles P. Darby, Jr. Department of Pediatrics Hematology/Oncology division chief as well as director for the adult and pediatric Blood and Marrow Transplantation (BMT) and Cellular Therapy Program, Dr. Hudspeth has established the Medical University of South Carolina (MUSC) as a beacon of excellence in the Southeast, earning national recognition for its exceptional patient outcomes, pioneering research, and unmatched commitment to training the next generation of pediatric cancer specialists. She currently is also serving as the secretary/treasurer for the American Society of Pediatric Hematology/Oncology/

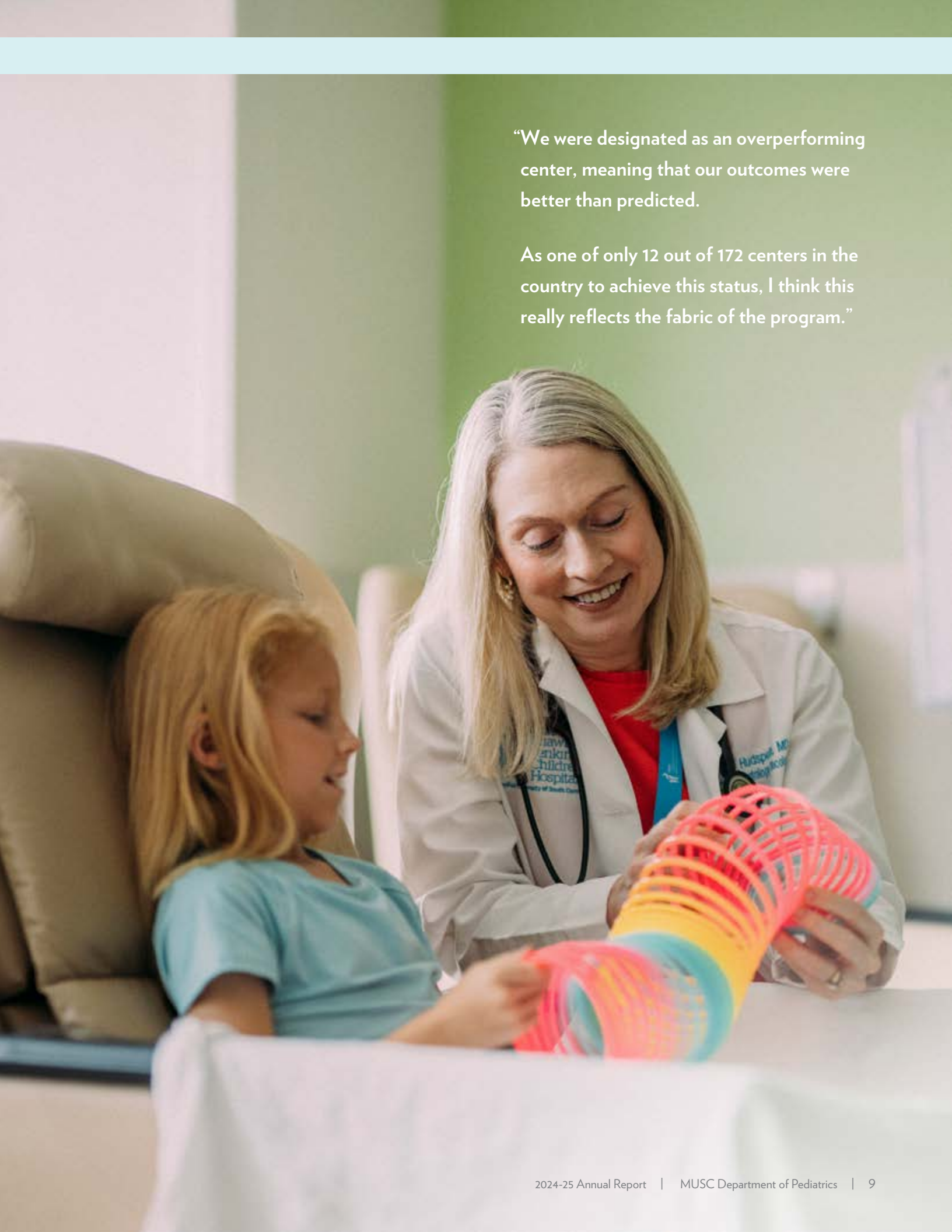
Under her leadership, MUSC offers a full spectrum of pediatric hematology/oncology services, with a major emphasis on blood and marrow transplant options: autologous, matched related and unrelated allogeneic, cord blood, and haploidentical transplants. Ranked among the top pediatric cancer programs in the country by ***U.S. News & World Report***, MUSC offers comprehensive, family-centered care to children across South Carolina and beyond who are battling cancer and blood disorders.

Most recently, the program was recognized by the Center for International Blood and Marrow Transplant Research (CIBMTR).

"We were designated as an overperforming center, meaning that our outcomes were better than predicted," says Dr. Hudspeth. "As one of only 12 out of 172 centers in the country to achieve this status, I think this really reflects the fabric of the program."

Dr. Michelle Hudspeth and Dr. Shayla Bergmann

Dr. Hudspeth attributes the program's success to the multidisciplinary team of pediatric hematologists and oncologists, psychologists, nurses, and researchers, all collaborating to deliver the most advanced care possible. The team treats a wide range of complex conditions, including leukemia, lymphoma, solid tumors, sickle cell disease, bleeding disorders, bone marrow failure disorders, immunodeficiencies, and rare pediatric malignancies. With access to the latest clinical trials and genetic therapies, patients benefit from cutting-edge treatment plans tailored to their individual needs.



"We were designated as an overperforming center, meaning that our outcomes were better than predicted.

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The program's affiliation with the Children's Oncology Group (COG)—the world's largest organization devoted to pediatric cancer research—ensures that children treated at MUSC can participate in innovative clinical trials that are often unavailable elsewhere in the region. Under the stewardship of Jacqueline Kraveka, D.O., who serves as the COG Principal Investigator, the collaboration has helped provide hope and healing to families while contributing to major national and international advances in pediatric oncology. We should highlight our involvement with Beat Childhood Cancer—Dr. Kraveka has a national leadership role and novel clinical trail she wrote—please reach out to her for this.

MUSC is also home to South Carolina's only pediatric oncology and hematology fellowship training program. Helmed by fellowship director Shayla Bergmann, M.D., this prestigious three-year fellowship attracts top pediatricians from across the country who are driven to specialize in caring for children with cancer and blood disorders. Through rigorous clinical training, research opportunities, and close mentorship, fellows gain the experience and knowledge needed to become leaders in the field. Many graduates go on to work in academic medicine, conduct groundbreaking research, or lead clinical programs that expand access to specialized care.

This pipeline of pediatric hematology-oncology experts is critically important in a state like South Carolina, where many children live in rural or underserved areas. The fellowship program not only trains future specialists but also helps build a sustainable workforce to meet the state's growing need for pediatric cancer care. "South Carolina is a rural state, and up to 25% of children live in poverty," says Dr. Hudspeth. "Working together with our referring hematology/oncology programs and delivering care to the kids throughout the state—there's nothing more rewarding."

In addition to clinical care and education, the program emphasizes emotional and psychosocial support for patients and families. Victoria Sexton, Psy.D., offers resources for patients and families going through the stresses of treatment, while therapy dog Cher provides comfort and a bright spot during her visits. These holistic resources are essential to helping children and their families cope with the challenges of a life-altering diagnosis and treatment journey.

Dr. Hudspeth sees the program's future continuing to be bright and hopes to further develop cellular therapy as an avenue to help patients with solid and difficult to treat tumors, as well as the ongoing advancement of the precision medicine approach. "This could become an option for all patients," she adds. "Ensuring that we stay on the forefront of best treatments and transformative therapies for our children is an essential part of our mission"

As South Carolina's only stem cell transplant, cellular therapy, and fellowship training site, MUSC continues to lead the way in care, research, and education. Its nationally ranked status reflects not only excellence in outcomes and innovation but also a steadfast commitment to children and families in every corner of the state. With a vision grounded in compassion, science, and leadership, the Pediatric Hematology-Oncology Program at MUSC is shaping the future of pediatric cancer care—one child, one discovery, and one new physician at a time.

Young patients playing at the atrium.

Decoding Hope: The Fight Against Rare Genetic Pediatric Diseases

Unless someone or someone they know are diagnosed with a rare disease, most people don't spend a lot of time thinking about genetics. But this diagnosis, according to the staggering statistics—with 1 in 10 individuals having a rare disease, and over 500,000 diagnosed in South Carolina alone—happens far more often than we think.

Fortunately, the Medical University of South Carolina (MUSC) and Shawn Jenkins Children's Hospital has a guiding light in the intricate landscape of genetic medicine. Department of Pediatrics' Division Chief Dr. Neena Champaigne has dedicated her career to diagnosing and treating rare childhood disorders—leveraging cutting-edge genetic and metabolic approaches to transform lifelong outcomes for young patients. "Genetics is something that I have been passionate about for decades—actually since I was in high school," says Dr. Champaigne. "I think it was just the mystery of it, thinking about the building blocks of life and trying to understand how genetics has a role—not only how we are different and unique, but how it affects our lives in terms of health and rare disease."

With over 7,000 rare diseases affecting the population, Dr. Champaigne thrives in this complexity. Specializing in medical biochemical genetics—one of only about 167 such specialists in the country—she addresses inborn errors of metabolism detected through newborn screening. These conditions, often invisible at birth, can now be identified early and treated preemptively in the hopes of warding off later complications.

For families wrestling with rare metabolic or neurological disorders, relief often begins with answers and an end to the diagnostic odyssey. Then comes hope: targeted therapies that stop disease progression or even reverse it. Dr. Champaigne's patients are among the first to benefit from gene-level interventions tested or deployed in MUSC's pediatric population.

While traditional management has relied on medications and dietary guidance, transformative gene-targeted therapies are now revolutionizing pediatric care. In pediatric neurology and metabolic disorders, targeted approaches—ranging from enzyme replacement to viral-vector gene transfer, gene silencing, or editing—are offering cures rather than symptom suppression. Currently, approximately 36 gene therapies have FDA approval, with many hundreds more in development. Experts expect 10-20 new gene therapies to be approved annually—a rapid expansion of therapeutic options.

In the five years she's served as Chief of the Department of Pediatrics Genetics and Genomics division, Dr. Champaigne's impact has extended beyond clinical care to also growing the division and

Dr. Neena Champaigne

"Genetics is something that I have been passionate about for decades—actually since I was in high school,"

The Genetics and Genomics team.

adding more specialists and therapies to better serve South Carolina's children. "We've grown a lot since 2020—we're about to add our fourth full time clinical geneticist and we've increased our genetic counselors from three to now we have eight. And that's not only an increase in staff, but also a greater access to appointments for patients," she says.

The division has also seen an increased involvement with many of the different specialists across MUSC. "One of our new physicians, Dr. Lancaster, has a passion for craniofacial genetics, so she's been an instrumental part of the craniofacial clinic and ENT's multidisciplinary clinic," says Dr. Champaigne. "We've also started a neurocutaneous clinic, which is in collaboration with neurology, dermatology, nephrology, hematology and ophthalmology.

Looking ahead, Dr. Champaigne remains committed to expanding access, improving delivery systems, and training the next generation of specialists. "I'm recruiting people who are passionate about teaching—Dr. Lancaster is our Director of Medical Genetics Education, and she's completely revamped our curriculum," she says. "It's still only an elective for medical students, but it engages with them, and it's gone from having scattered attendance to actually having a wait list to get in." And she adds that on the horizon is even a brighter option for future genetic and genomic specialists: a dedicated genetic residency with a 2027 target date.

Dr. Champaigne's vision is in harmony with the current evolution in medicine: the switch from treating symptoms to proactive, genetic-level cures. And she imagines a future where rare pediatric diseases are not an insurmountable hardship, but a challenge that can be decoded—and overcome together. "Many of these treatments require multidisciplinary care—specialty involvement that is not found anywhere other than an academic center," she says. "Being at MUSC offers that opportunity, and I am focused on wanting to be a center of excellence around treatment for rare disease."

Drs. Champaigne and Thompson posing with three babies treated with gene therapy for spinal muscular atrophy (SMA).

Training the Pediatric Critical Care Providers of the Future

At the Medical University of South Carolina (MUSC), the division of Pediatric Critical Care is setting a new standard for excellence in the Southeast. This July, MUSC's Department of Pediatrics launched South Carolina's first-ever Pediatric Critical Care Fellowship Program, marking a pivotal moment for the state's medical education and pediatric care. The fellowship adds an advanced training pathway for pediatricians who want to specialize in caring for the sickest children, and early interest has been overwhelmingly positive.

Division Chief Brian Bridges, M.D. says the fellowship is an extension of the team's commitment to building the next generation of leaders in pediatric intensive care. "I have partners who are ICU physicians and ICU advance practice providers who have all this talent, ambition and who are experts on education and clinical research," he says.

"We've got a group that will continue to build our reputation—not just for being a really good place for taking care of sick children, but also an amazing training ICU."

In addition to the new pediatric critical care fellowship program, Bridges is also excited about working with the MUSC Shawn Jenkins Children's Hospital Extracorporeal Membrane Oxygenation (ECMO) Program. The ECMO program is a recipient of the Platinum Level Award of Excellence from the Extracorporeal Life Support Organization (ELSO), the highest international recognition for ECMO programs. This accolade reflects superior patient care, exceptional clinical outcomes, and a dedication to continuous improvement. MUSC remains the only children's hospital in the state with a platinum-designated ECMO program.

ECMO provides life-saving support to children experiencing severe cardiac or respiratory failure, allowing their heart or lungs to rest and heal. The MUSC team has quickly become a national leader, offering not only outstanding care but also serving as a hub for education, research, and innovation. Pediatric ECMO Manager Alicha Gibbs emphasized the collaborative spirit that drives their success. "What we accomplish isn't just a reflection of hard work—it's a reflection of compassion, integrity, and teamwork," she says. "We've faced challenges, long hours, and moments of uncertainty, but through it all we've stood together with a shared purpose and deep commitment to the patients we serve."

The combination of South Carolina's first pediatric critical care fellowship and an internationally acclaimed ECMO program has further established MUSC as a destination for advanced pediatric care. The pediatric intensive care unit (PICU) serves the most critically ill children from across the region, offering cutting-edge therapies in a family-centered environment.

Dr. Brian Bridges

"We've got a group that will continue to build our reputation—not just for being a really good place for taking care of sick children, but also an amazing training ICU."

As MUSC continues to build on these achievements, the division is focused on growing its research portfolio, expanding fellowship opportunities, and further enhancing ECMO capabilities. Dr. Bridges, a South Carolina native, is excited to return to his home state and help take the critical care program to even greater heights. "We've always done great clinical care here, but really this is just the beginning," says Dr. Bridges. "Now that we are growing, we're going to continue to improve our missions."

And he hopes to provide the life changing moment for trainees and students that he himself had back in medical school when he rotated through critical care. "I saw that kids could be so sick and have every organ system failing, and with the team working together and providing excellent care, the kids could get better, be normal again and go home and be with their families," he says. "I thought that was the most amazing thing in the world. And I still do."

Healing Hearts and Minds: Pediatric Psychologist Empowers Cardiology Patients at MUSC

Pediatric Psychologist Heather Adame, Ph.D., recently had a particularly rewarding resolution to a case that she had been working on since she started with the Pediatric Cardiology team at Shawn Jenkins Children's Hospital nearly a year ago: an adolescent male was readmitted to the hospital after his heart transplant because he wasn't taking any of his necessary medications. "People might have seen him as just a typical grouchy 16-year-old, says Dr. Adame. "But I wanted to be able to come into the room and get to know him as someone who is trying to figure out how to live his life with this heart transplant. Because no matter how many times we try an explain to a patient what it will be like, it's not something you really process until you're living it."

Over the course of his admission, Dr. Adame and the Peds Card team worked together to identify the interpersonal and systemic barriers that were keeping him from taking his medications and actively engaging in his own healthcare. After much improvement, he was able to be discharged and with his newfound knowledge and support, really began thriving.

"He recently graduated high school and is now going on to college," says Dr. Adame. "It's such a wonderful experience of watching what I do in action and seeing the outcome for this young man. Seeing him succeed is phenomenal."

Dr. Adame specializes in supporting children and families as they navigate the daunting realities of congenital heart disease, cardiac surgeries, and long hospitalizations. Her role is critical in a setting where patients often face multiple medical interventions, uncertainty, and prolonged separations from home and school.

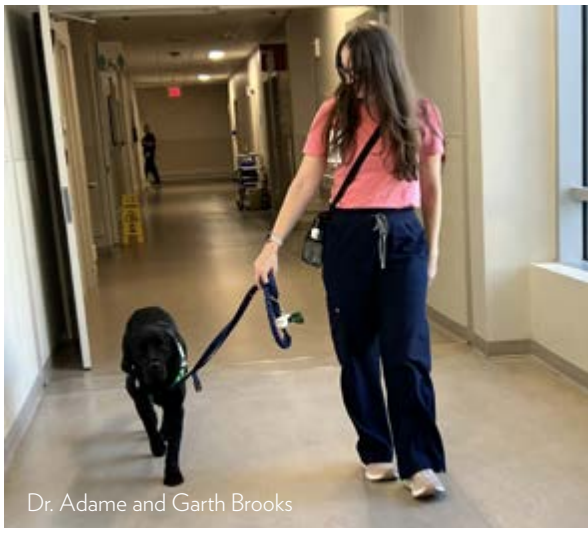
"First and foremost, my job entails meeting with patients that the physicians identify as having challenges coping with their illness, which can be anything from medical adherence, medical trauma, anxiety, depression, or caregiver coping and adjustment," says Dr. Adame. "Once my Heart Center colleagues see these concerns, they explain the situation and I become a part of that patient's care team."

For many families, Dr. Adame serves as an essential and highly sought after member of the care team. "South Carolina as a whole is severely underserved when it comes to mental health. There is only one state that has less psychologists per capita than we do," she says. "We have to become a very preventative model, because I don't have a lot of colleagues I can send my patients to when our time together has come to an end."

She meets with patients and families pre-operatively to help manage anxiety and explain what to expect. "Many of our newborns have congenital heart defects, and we know that when families get care early on, they need less of me when they get older," says Dr. Adame. "So, I try

Dr. Heather Adame

"Dr. Adame helps our patients and families navigate incredibly challenging, stressful, and uncertain circumstances and provides another layer of patient care that was previously a gap in our care model."



Dr. Adame and Garth Brooks

and meet every single family that comes through the Heart Center and provide them with education and the resources they need to really start building."

Dr. Adame's position has been made possible through funding from The HEARTest Yard. Founded by former NFL player Greg Olsen and his wife Kara after their son was born with a severe heart condition, The HEARTest Yard provides vital funding to enhance pediatric cardiac care in the Carolinas. Their generous support allows MUSC and Shawn Jenkins Children's Hospital to offer psychological services tailored to the unique needs of pediatric cardiology patients—something still uncommon in many children's hospitals across the country.

"We were watching these kids and families struggle with the impact of being in the unit for long periods of time waiting for a transplant, and the idea for a full-time psychologist for the heart center was born" says Pediatric Heart Center Administrator, Lisa Camps. "We presented it to Greg Olsen, and he immediately said, 'by all means—let's do it!'"

During the length of the patient's stay, Dr. Adame checks in regularly, often bringing therapy dog, Garth Brooks. "Sometimes patients forget my name and call me the lady that comes with Garth," she jokes. But both she and Garth serve the very important role of helping young patients cope with pain, fear, and emotional changes. Her work also extends to parents, siblings, and even care providers, who often experience their own levels of stress and trauma.

"It's been tremendous having Heather here," says Lisa. "Not only is she able to support the patients and their families, but she's been a great resource for the staff. This year, we've had some unexpected deaths which really begins to take its toll on the team. She's been able to provide resources and healing for us too."

She also collaborates closely with the multidisciplinary team—cardiologists, surgeons, nurses, and child life specialists—to create integrated care plans.

"Dr. Adame helps our patients and families navigate incredibly challenging, stressful, and uncertain circumstances and provides another layer of patient care that was previously a gap in our care model," says Pediatric Cardiologist Sinai Zyblewski, M.D., "Our team's goal is to provide exceptional medical care in an environment that fosters resilience, minimizes trauma, and supports families. We are very fortunate to have a foundation that aligns with and supports this mission."

With The HEARTest Yard's continued support, MUSC and Shawn Jenkins Children's Hospital leads a model of care that recognizes emotional health as a vital part of medical recovery. Dr. Adame would like to expand the services the Heart Center offers and hopes more pediatric programs will follow suit.

"I think the next step for the Heart Center in particular would be to get another mental health provider of some kind," she says. "Because our state has limited resources (for mental health), we're really focusing on an inpatient, preventative care model—this is where I can do the most good. But I would love to move to an outpatient sector and eventually have a provider doing work in our clinics being able to see our kids in between admissions."

As daunting as it may be to help families walk the difficult path of pediatric heart disease, Dr. Adame often reflects back to the young man she helped who just recently graduated. "He's having the best summer of his life," she says. "These are the moments for me that really bring home how deeply psychological care is needed within all of our programs across the MUSC system."

Research Faculty

Denis Guttridge, Ph.D.
Director, Darby Children's Research Institute

John Baatz, MD

Dieter Haemmerich, PhD

Martin Kang, PhD

Casey Langdon, PhD

Jill Newman, MS

Susan Reed, PhD

Jezabel Rodriguez Blanco, PhD

Inderjit Singh, PhD

Bobby Thomas, PhD

David Wang, PhD

17th Annual Research Symposium Explores the Future of AI in Pediatric Healthcare

The 17th Annual Department of Pediatrics and Darby Children's Research Institute Symposium, held May 8-9, 2025, brought together top researchers, clinicians, and innovators to explore the transformative potential of artificial intelligence (AI) in pediatric research and healthcare. The event highlighted groundbreaking work and inspired vital discussions on how AI can enhance early diagnosis, personalize treatment, and improve health outcomes for children.

This year's theme, "Smart Pediatrics: Leveraging AI to Revolutionize Child Health," was woven throughout keynote addresses, presentations, and posters. Experts shared advancements in machine learning used to detect congenital heart defects, predict disease and treatment trajectories, and optimize patient management in neonatal intensive care units.

Says co-chair Dr. Hamilton Baker, who helped shaped this year's theme and identify speakers at the cutting edge of the field: "This year's program underscored how artificial intelligence is no longer a distant concept—it's rapidly becoming a transformative tool in the way we deliver, study, and improve child health care."

The two-day event began the evening of May 8th, when attendees braved the torrential rainstorm to enjoy poster presentations and a banquet reception. Research presented ran the gamut from the importance of immunology as part of care for Trisomy 21 patients to a device that maps the pathways that chemotherapy takes in the body. "The quality of trainee research continues to impress," says Dr. Baker. "The presentations and posters reflected a wide breadth of topics and a high level of scientific rigor."

The following morning on May 9th, a full roster of AI-themed presentations began at 8 am. One significant highlight of the day was the first Charles Darby Memorial Alumni Keynote Lectureship, presented by Yale neonatologist, Dr. Sarah Taylor. Dr. Taylor,

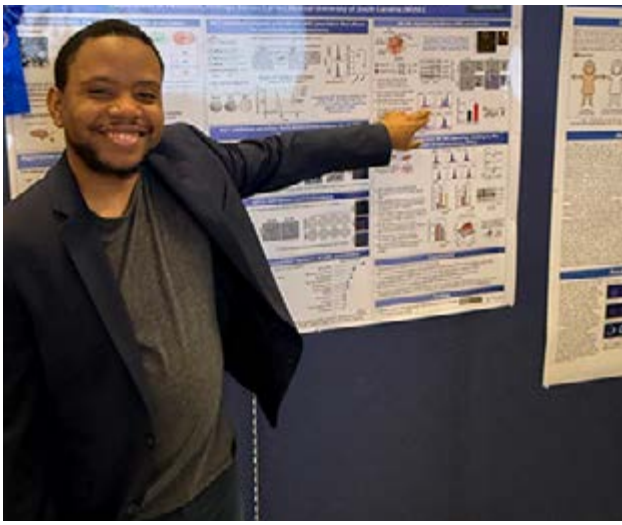
an MUSC alumna, explored AI's role in the future neonatal nutrition in her talk, "To Infinity and Beyond: The Science of Infant Feeding."

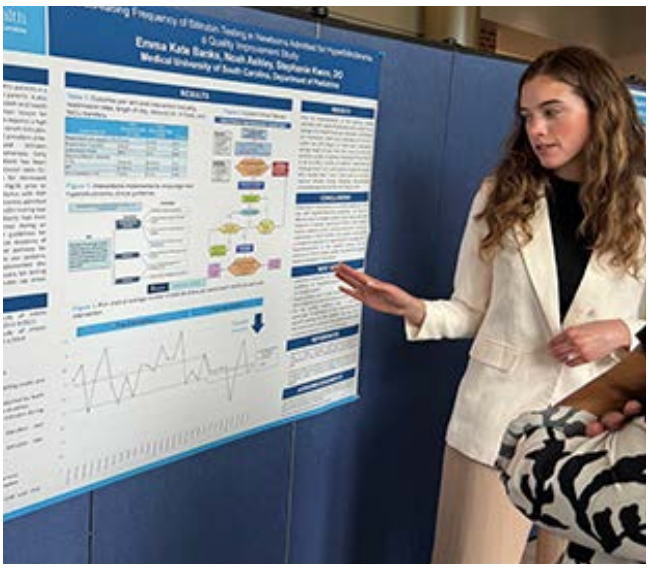
"The Symposium was a wonderful experience," says Dr. Taylor. "This is an important conference to both showcase the exceptional pediatric research at MUSC and to bring in experts in innovative work to present at MUSC. I am honored to be the first invited speaker for the Charles Darby Memorial Alumni Keynote Lectureship. Dr. Darby was a powerful force who led the development of both the MUSC Department of Pediatrics and the Darby Children's Research Institute. He created a special pediatric academic department at MUSC that continues to shine."

Beyond the technology itself, symposium participants also touched on the ethical considerations of implementing AI in pediatric care. Data scarcity, complexity of child development and integration with existing healthcare systems are just a few of the areas that present challenges. "The Symposium highlighted both the promise and complexity of using AI in child health," says Dr. Baker. "We're no longer asking whether AI will impact pediatrics—we're now asking how it serves children equitably and ethically."

As AI continues to evolve, the insights and collaborations fostered at the 17th Annual Department of Pediatrics and Darby Children's Research Institute Symposium offer a hopeful roadmap for its integration into pediatric research and care. "This year's Symposium left me energized about the role we can all play in guiding AI's responsible integration into pediatric medicine," says Dr. Baker. "It's clear we're just at the beginning of an important journey."

"This is an important conference to both showcase the exceptional pediatric research at MUSC and to bring in experts in innovative work to present at MUSC."





Department of Pediatrics' Groundbreaking Infant-First Research Results in Patents

Dorothea Jenkins, M.D., can recall the moment she made the connection between vagus nerve stimulation and the impact it could have on the neonates she treated. "I was attending a brain stimulation seminar lecture discussing the parameters of non-invasive transcutaneous auricular vagus nerve stimulation (taVNS) with human volunteers," says Dr. Jenkins. "As soon as I heard the details of the study, I was like 'Oh—we've got to do this in babies, and I know exactly what motor skill we can work on!'"

It was this lightbulb moment that led to Dr. Jenkins' groundbreaking, infant-first study that had a 70% success rate in at risk babies and culminated in a registered patent on both the innovative technology as well as the cranial nerve system for feeding.

The vagus nerve, a crucial part of the autonomic nervous system, plays a vital role in regulating various bodily functions, including heart rate, digestion, and even immune responses. Researchers have long recognized its potential therapeutic applications, and over the years implanted vagus nerve stimulation has been used successfully in the treatment of various medical conditions in adults, such as epilepsy and depression (initiated at MUSC by Dr. Mark George in 1998).

However, Dr. Jenkins saw a unique opportunity to harness the power of non-invasive taVNS to address the specific health challenges faced by infants born pre-term or with a brain injury. "One of the first skills that newborns have to master is feeding—the sequence of sucking and swallowing milk and then breathing. It takes more than 22 muscles, and they have to do all of that within 1-2 seconds and not aspirate, so this is a significant motor sequence to learn," says Dr. Jenkins. "Now, if you're born at term, you've got it as a reflex. But if you're born preterm or if you have a brain injury as a term baby, you may not have that reflex. We were having a large number of babies who were getting gastrostomy tubes placed because they could not learn this skill and were not able to fully feed by mouth."

Dr. Jenkins began her research journey with a simple yet profound question: Could taVNS be used to not only help these babies learn to feed, and also positively impact the neuroplasticity of their brains? Using a non-invasive device positioned on the ear branch of the infant's vagus nerve, Dr. Jenkins and her team would stimulate the baby during the sucking and swallowing phase of feeding. The results were nothing short of miraculous. When used once a day,

Dr. Jenkins' care team and a young patient

"TaVNS seems to provide a rocket boost to the infant's natural neuroplasticity, to their current sensorimotor skills and, we hope, future development."


An infant receives taVNS therapy while feeding

babies were able to get to full feeds in two weeks, and when the device was used twice a day, babies were able to achieve full feeds in an average of 8 days.

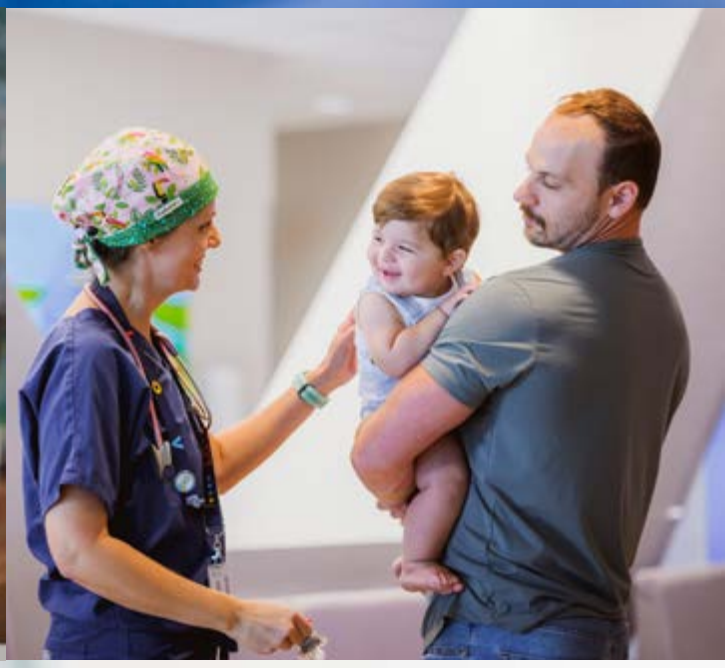
Dr. Jenkins was also able to measure the success of the technique through extensive brain imaging. "We utilized MRI scans with modified barium swallows before and after so we could look at the mechanics of swallowing as well as what we were hoping to generate, which was neuroplasticity in the brain," she says. "What we saw (through biomedical imaging) was that the corticospinal tracts—the major motor tracks—were significantly more complex and stronger in the babies who got the full feeds."

Dr. Jenkins is currently starting a new STTR multicenter, randomized controlled trial to show the effects of the BabyStrong taVNS feeding system in infants that are poor feeders. The research and results will provide the groundwork for an FDA application.

In addition to improving immediate health outcomes, Dr. Jenkins also envisions the long-term impact taVNS can have in feeding and other areas of motor delays. "Our goal is to use taVNS to improve breastfeeding—which is different than bottle feeding—and I think that would be a huge game changer for a lot of infants and their mothers who get discouraged when babies aren't learning to breastfeed," she says. "It's very expensive to keep babies in the hospital to teach them to feed, so I think the ability to hasten that and get them home is good for family bonding and their development."

Dr. Jenkins has also collaborated with MUSC pediatric occupational and physical therapists to conduct pilot trials with older infants with motor delays and greater weakness of one arm and hand, a marker of early cerebral palsy. "We paired the taVNS with Constraint-Induced Movement Therapy (CIMT) in which the good hand is wrapped or put in a soft mitt, and the weaker hand and arm are used in intensive play therapy," she says. "Those infants typically had minimal use before treatment but saw significant improvement with the combined intervention, and much better improvement than we would have expected from CIMT alone."

As the research expands into larger clinical trials, Dr. Jenkins envisions a future where taVNS becomes a standard supportive therapy for infants who face high risks of developmental challenges. "We're excited about the possibilities of taVNS paired with motor or behavioral interventions for infants after brain injury to stimulate and strengthen brain circuits and get them on a more normal developmental track," she says. "TaVNS seems to provide a rocket boost to the infant's natural neuroplasticity, to their current sensorimotor skills and, we hope, future development."



Shaping the Future of Primary Care: Dr. Rachael Zweigoron

"I think what a primary care program should do is really push people to say, how do I engage my community? How do I become somebody who really has an impact?"

Primary care is the foundation of a healthy community, yet across the country, there remains no universally standardized curriculum to prepare pediatricians for this role. At the Medical University of South Carolina (MUSC), Rachael Zweigoron, M.D., is stepping into that gap with vision, passion, and purpose. As the program leader for MUSC's Primary Care Program in the Department of Pediatrics, she is working to ensure that children and families across South Carolina—and beyond—benefit from stronger, more consistent primary care training.

Dr. Zweigoron has long believed that pediatricians are not just providers of care but partners in the long-term health and well-being of families. "Any program can teach you developmental milestones and basic skills that every graduate should know."

At MUSC, Dr. Zweigoron leads a program that is one of only 10 in the country that has a match devoted exclusively to primary care (by contrast, categorical pediatrics has 218). Under her guidance, residents are exposed to a wide range of clinical experiences in both urban and rural settings, helping them understand the diverse challenges children face in accessing care.

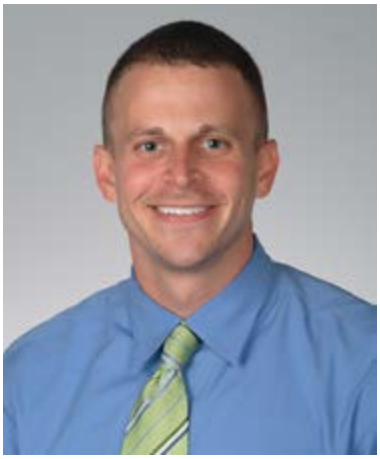
One of her key initiatives has been developing a standardized primary care curriculum—something that she discovered was needed across the country. "After searching everywhere—online, looking and finding nothing—I connected with some other primary care program leaders and asked them what they were using. They also didn't have a source and were just creating their own."

Thus began Dr. Zweigoron's journey towards collaboration across institutions. Working with other academic centers to share best practices, Dr. Zweigoron is focusing on establishing a framework that can eventually be adopted nationally. "Of all of the programs that exist out there, only 1/4 of them have any information online," she says. "So, if you're a medical student who wants to go to a primary care track or primary care program, it's actually very hard to figure out who they are and what they do."

While the project is still ongoing, Dr. Zweigoron hopes to generate conversation around what should be included in a primary care curriculum and perhaps move towards not a hard and fast list of requirements, but guidance for students as a consumer and educators as leaders about what primary care training programs should include.

As an integral part of MUSC's Primary Care Program for more than a decade, Dr. Zweigoron is helping redefine what pediatric primary care education can and should be, as well as advancing health and wellness throughout South Carolina. In a state with many underserved and rural communities, the need for well-trained primary care pediatricians is particularly pressing.

"I'm trying to not only lead this group here in Charleston, but I'm trying to work with other people with similar passions nationally to bring the standards up for everybody to make it better for learners, better for educators, better for employers and most of all, better for the children," she says. "In my heart of hearts, I want to help produce phenomenal primary care pediatricians who are leading by example in terms of their community engagement and care."



Celebrating Seven Years of Leadership: Dr. Dave Mills' Vision for the MUSC Pediatric Residency

"We pride ourselves on having people leave our program prepared to do anything in the field of Pediatrics."

At the Medical University of South Carolina (MUSC), the Department of Pediatrics has long been recognized as a place where excellence in education and compassionate care converge. At the heart of this mission is Residency Program Director, Dave Mills, M.D., whose leadership has shaped and strengthened one of the Southeast's most respected pediatric training programs.

"This is the start of my 7th year as program director, which is crazy for me to say out loud," he laughs. "You blink and time goes by so, so rapidly. But I'm more excited than ever about how the program is expanding and flourishing, and proud of the amazing graduates that we've helped to cultivate."

Dr. Mills has dedicated his career to ensuring that young physicians receive not only top-tier clinical training, but also the mentorship and support they need to thrive in an increasingly complex healthcare environment.

"Each year we want to make sure that we're bringing in a class with as wide-ranging interests as possible—both in their backgrounds as well as their clinical focus—so they can then share their unique perspectives with each other," he says.

The residency program boasts a plethora of rotations across a wide variety of pediatric clinical settings, from state-of-the-art Shawn Jenkins Children's Hospital to numerous community clinics that serve underrepresented populations. The program offers three optional tracks (Advocacy, Global Health, and Medical Education), has a supportive environment with a family feel, and has cutting-edge quality improvement and research opportunities for residents.

"Historically we've been really successful at having residents go out and be leaders in the pediatric community in areas such as advocacy, research, education or global health. They go on to be wonderful primary care doctors, or subspecialists matching into some of the best fellowship programs in the country," says Dr. Mills.

One such leader is former resident, Dr. Kelsey Gastineau. Her innovative research in pediatric injury prevention, specializing in firearm safety, has shed light on the increased healthcare burden for youth with pediatric firearm encounters and helped to normalize conversations around gun safety when treating patients.

And with success and recognition, comes growth. Last year, the Categorical Peds program expanded from 14 available spots to 16, and this year, Child Neurology expands from one spot to two.

"In terms of growing our program, this is kind of a stepwise process—we haven't seen the full growth yet and we won't see it for another year," says Dr. Mills. "But by next year, we're going to have three classes worth of 16 categorical pediatric residents in our program, four Med/Peds residents per year, three primary care residents per year, and two child neurology residents per year. So yeah, it's a very exciting time to train our future doctors."

When looking to the future, Dr. Mills sees himself continuing both the growth of the program as well as continuing his place at the helm. "I don't think our expansion is done as MUSC keeps growing, as Charleston keeps growing, and as our pediatric population keeps growing," he says. "So yeah—seven years as program director so far and I hope there's 10 to 15 more coming my way after this. I love it. I really do."

Categorical Pediatric Residents

Hannah Allison
Medical University of South Carolina

Anne Crosswell
Medical University of South Carolina

Baylee Polzin
University of Louisville School of Medicine

Kyle White
Medical University of South Carolina

Elizabeth Ashley
University of Kentucky College of Medicine

Jacob Dohmeier
University of Tennessee Health Science Center COM

Rachel Reed
University of South Carolina Greenville

Katherine Wilson
Edward Via College of Osteopathic Medicine Auburn Campus

Alexis Colley
Edward Via College of Osteopathic Medicine Auburn Campus

Erin Gruber
Medical College of Wisconsin

Ting Wang
Creighton University School of Medicine

Maggie Woods
University of Virginia School of Medicine

Annie Cribb
Medical University of South Carolina

Elaina Matthews
Medical College of Georgia at Augusta University

Cayla Wakser
Medical University of South Carolina

Alexa Ytterberg
Virginia Commonwealth University School of Medicine

Med-Peds Residents

Jonathan Bowling
The Brody School of Medicine at East Carolina University

Deon Heavens
Meharry Medical College

Aparna Macharla MBBS
Kasturba Medical College Manipal

Hannah Pressler
MUSC

Pediatric Primary Care Residents

Aaron Jennings
University of Florida

Holly Raines
MUSC
Anderson Campus

Will Shugart
MUSC
Anderson Campus

Child Neurology Residents

Sarah Steadman
Edward Via College of Osteopathic Medicine Carolinas Campus

Sonia Vanegas
Edward Via College of Osteopathic Medicine Louisiana Campus

Pediatric Residency

David Mills, M.D.
Program Director

PGY1

Margaret Allen, M.D.
Bailey Arters, M.D.
Jamie Barnett, M.D.
Matthew Dominguez, M.D.
Annabella Gallagher, D.O.
Jesper Jiang, M.D.
David Kronenberger, M.D.,
Courtney McCool, D.O.
Molly Mead, M.D.
Rachael Mfon, D.O.
John Mobley, M.D.
Krystal Nolan, M.D.
Michele Nsianya, M.D.
Caroline O'Leary, M.D.
Kady Palmer, M.D.
Madison Shutler, D.O.
Savanna Stoy, D.O.
Alexandra Thompkins, M.D.
Lauren Wilder, M.D.
Haley Wissler, M.D.

PGY2

Clifton Dietrick, M.D.
Emily Downs, M.D.
Elena Goldstein, M.D.
Alexus Gonzalez, M.D.
Sofia Goyonaga, M.D.
Carolyn Gregorie, M.D.
Taylor Jeansonne, M.D.
Emma Kunkleman, D.O.
Margaret LaPorte, M.D.
Keila Magafas, M.D.
Zachary Mayo, M.D.
Maria Montalvan Padilla, M.D.
Vanessa Navas, M.D.
Megan Peterson, D.O.
Helena Quach, M.D.
Sierra Stumpff, M.D.

PGY3

Jessica Bauer, M.D.
Haley Burdge, M.D.
Caroline Conroy, M.D.
Natalie Eidson, D.O.
Stephanie Hayden, M.D.
Merritt Grossnickle, M.D
Emily Ireland, D.O.
Laken Johnson, M.D.
Mary Elizabeth Klopp, D.O.
Sarah Lants, M.D.
Cindy Lee, D.O.
Keegan McKim, D.O.
Megan Murphy Jones, M.D.
Samantha Russell, D.O.
Michael Ryan, M.D.
Lucy Tomb, M.D.
Jaimie Vilavinal, M.D.
Allison Willis, M.D.

Med/Peds Residency

Sarah Mennito, M.D.
Program Director

PGY1

Camila Hernandez, M.D.
Cheyenne Krehl, M.D.
Gilliann Minviel, D.O.
Susanna Winger, M.D.

PGY2

Sean Cosh, M.D.
Arica Gregory, M.D.
Emily Hargous, D.O.
Margaret Reilly, M.D.

PGY3

Brooke Hisrich, M.D.
Austin Lewis, M.D.
Linnea Mitchem, M.D.
Danielle Rangel Paradela, M.D.

PGY4

Thomas Brenzel, M.D.
Ariel Faber, M.D.
Andrew Gentuso, M.D.
Megan Kern, M.D.
Sarah Beasley, M.D.

Child Neurology Residency

Salvatore Rametta, M.D.
Program Director

PGY1
Sarah Steadman, D.O.
Sonia Vanegas, D.O.

PGY2
Madison Shutler, D.O.

PGY3
Megan Peterson, D.O.

PGY4
Jaimie Vilavinal, M.D.

PGY5
Florian Capobianco, M.D.

Cardiology Fellowship

Sinai Zyblewski, M.D.
Program Director

PGY4
Kimberly 'Bianca' Gray, M.D.
Sara 'Sally' Hunt, M.D.
Brian 'David' Maxwell, M.D.
Keegan McKim, D.O.

PGY5
Hannah Ballock, M.D.
Cara Bird, M.D.
William McAllister, M.D.

PGY6
William Harris, M.D.
Faith Middleton, M.D.
Kathryn Wershing, D.O.

PGY7
Lily Suh, M.D.

Developmental Behavioral Pediatrics Fellowship

Michelle Macias, M.D.
Program Director

PGY6
Maddie Farley, M.D.

Pediatric Hospital Medicine Fellowship

Daniel Williams, M.D.
Program Director

Chief Residents
Stephanie Hayden, M.D.
Merrit Grossnickle, M.D.

PGY4
Jennifer Springer, M.D.

PGY5
Victoria Alexander, M.D.
Eileen Matos, M.D.
Lauren Tapp, M.D.

Gastroenterology Fellowship

Jordan Whatley, M.D.
Program Director

PGY 4
Jessica Bauer, M.D.
Bailey Dunn, D.O.

PGY 6
Timothy Marshall, M.D.
Patrick Morency, M.D.

Emergency Medicine Pediatrics Fellowship

Olivia Titus, M.D.
Program Director

PGY4
Zack Dunn, M.D.
Laken Johnson, M.D.
Bethany Kennedy, M.D.

PGY5
Marcie Costello, D.O.
Abigail Marcom, M.D.
Rachel Sealby, D.O.
Jaya Ruffin, M.D.

PGY6
Kaitlyn Boggs, M.D.
Thomas Andrew Brooks, D.O.

PGY7
Leslie Thompson, M.D.

Hematology/Oncology Fellowship

Shayla Bergmann, M.D.
Program Director

PGY4
Ghida El Hout, M.D.
Megan Murphy Jones, M.D.
Erin Mary Woeste, D.O.

PGY6
Chris Ferrante, M.D.

Neonatal-Perinatal Fellowship

David Annibale, M.D.
Program Director

PGY4
Haley L. Burdge, M.D.
Ann E. Hill, M.D.
Mary W. Klopp, D.O.

PGY5
Carli Edwards, D.O.
Liza Larranaga, D.O.
Mikael Ann Worsham, D.O.

PGY6
Jeff King, M.D.
Tammy Tran, D.O.
Christine Woodburn, D.O.

Rheumatology Fellowship

Natasha Ruth, M.D.
Program Director

PGY5
Sonal Patel, M.D.
Madeleine Ward, M.D.

PGY6
Chelsea Reynolds, D.O.

Nephrology Fellowship

Katherine Twombley, M.D.
Program Director

(Anita Perez, M.D. assuming directorship 10/25)

PGY6
Gina Aeckersberg, M.D.

New Faculty

Heather Adame, Ph.D.
Pediatric Cardiology

Rathna Amarnath, M.D.
Pediatric Gastroenterology

Stephen Ballis, M.D.
Pediatric Hospital Medicine

Katerina Boucek, M.D.
Pediatric Cardiology

Dennis Delany, M.D.
Pediatric Cardiology

Kelly Garrity, M.D.
Pediatric Nephrology

Jason Lake, M.D.
Pediatric Infectious Diseases

Deanna Lashley, D.O.
Child Abuse Pediatrics

Allie Megale, Ph.D.
Developmental & Behavioral Pediatrics

Farooq Meher, M.D.
Pediatric Sleep Medicine

Ashley Perdue, M.D.
Pediatric Primary Care – General Pediatrics

Austin Rutledge, D.O.
Neonatology

Marlo Smith, M.D.
Pediatric Primary Care – General Pediatrics

Not Pictured

- Maureen Burke, M.D.
  Pediatric After Hour Care
- Ashley Eason, M.D.
  Pediatric Hematology/Oncology
- Frances Frigon, M.D.
  Pediatric Hematology/Oncology
- Barbra Giourgas, M.D.
  Pediatric Neurology
- Sherri Smart, M.D.
  Pediatric Hematology/Oncology
- Patrick Snyder, M.D.
  Pediatric Critical Care

New Advanced Practice Providers

Rachel Lulo, NP
Pediatric Cardiology

Abbey Harris, NP
Pediatric Hematology/
Oncology

Seanna Houston, NP
Neonatology

Meredith Ledbetter, NP
Neonatology

Kerry Maleska, NP
Pediatric Hematology/
Oncology

Rachael Sims, NP
Pediatric Pulmonology

Mallory Stavrinakis, NP
Pediatric Critical Care

Amanda Suarez, PA
Neonatology

Emily Thatcher, PA
Pediatric Hematology/
Oncology

Courtney Zeyfang, NP
Pediatric After
Hour Care

Not Pictured

- Katie Mcnamara, NP
  Pediatric Nephrology

Pediatric Clinical Services

Adolescent Medicine

Elizabeth Wallis, M.D. (Div. Chief)
Mary Abel, M.D.
LaKeshia Craig, M.D.
Janice Key, M.D.
Marissa Kemp, NP

Pediatric Allergy & Immunology

Kelli Williams, M.D. (Sect. Chief)
Emily Campbell, M.D.

Child Abuse Pediatrics

Deana Lashley, D.O. (Div. Chief)
Colleen Bressler, M.D.
Shemika Champion, NP
Lisa Erin Julian Hart, NP
Kelli Maddox, NP
Katherine Fabrizio, NP
Ashleigh Petrides, NP
Mallory Sessions, NP
Stephanie Petersen, NP

Pediatric Cardiology

Eric Graham, M.D. (Div. Chief)
G. Hamilton Baker, M.D.
Varsha Bandisode, M.D.
Katerina Boucek, M.D.
Jason Buckley, M.D.
Nicole Cain, M.D.
Shahryar Chowdhury, M.D.
John Costello, M.D.
Dennis Delany, M.D.
Geoffrey Forbus, M.D.
Stephanie Gaydos, M.D.
Heather Henderson, M.D.
Anthony Hlavacek, M.D.
Lanier Jackson, M.D.
Kimberly McHugh, M.D.
Deani McVadon, M.D.
Laura Murray, M.D.
Arni Nutting, M.D.
Scott Pletzer, M.D.
Reshma Reddy, M.D.
John Rhodes, M.D.
Andrew Savage, M.D.
Mark Scheurer, M.D.
Carolyn Taylor, M.D.
Sinai Zyblewski, M.D.
Heather Adame, Ph.D.
Vanessa Adams, NP
Hailey Crider, NP
Rachel Lulo, NP
Angela McKeta, PA
Molly Naylor, NP
Frances Woodard, NP
Jillian Wilken, NP

Pediatric After Hours Care

Shana Bondo, M.D. (Sect. Chief)
Margarita Abella, M.D.
Cameron Anderson, M.D.
Maureen Burke, M.D.
Rebecca Cafiero, M.D.
Marissa Blanco Knowlton, M.D.
Kristen Kyler, D.O.
Leah McBee, M.D.
Megan McGeary, M.D.
Sandi McKenzie, M.D.
Megan Redfern, M.D.
Nikki Yourshaw, M.D.
Katherine Chike-Harris, NP
Courtney Zeyfang NP

Pediatric Critical Care

Brian Bridges, M.D. (Div. Chief)
Joshua Arenth, M.D.
Austin Biggs, M.D.
Melissa Evans, M.D.
Elizabeth Mack, M.D.
Elizabeth MackDiaz, M.D.
Whitney Marvin, M.D.
Rustin Meister, M.D.
Rhodes Proctor Short, M.D.
Patrick Snyder, M.D.
Alice Walz, M.D.
Allison Whalen, M.D.
Elizabeth Zivick, M.D.
Leah Buffington, NP
Tacorey Campbell, NP
Patricia Meiers, NP
Mallory Stavrinakis, NP

Developmental & Behavioral Pediatrics

Angela LaRosa, M.D. (Div. Chief)
Dale Gertz, M.D.
Michelle Lally, M.D.
Michelle Macias, M.D.
Silvia Pereira-Smith, M.D.
Julia Garcia, NP
Meghan West, NP

Laura Carpenter, Ph.D. (Sect. Chief)
Catherine Bradley, Ph.D.
Kasey Hamlin-Smith, Ph.D.
Margaret Hudepohl, Ph.D.
Mary Kral, Ph.D.
Allie Megale, Ph.D
Rosmary Ros-Demarize, Ph.D.

Pediatric Emergency Medicine

William Scott Russell, M.D.
(Div. Chief)
Keith Borg, M.D.
Jennifer Braden, M.D.
Colleen Bressler, M.D.
Carrie Busch, M.D.
Benjamin Jackson, M.D.
Ian Kane, M.D.
Ash Kumar-Veeraswamy, M.D.
Kathy Lehman-Huskamp, M.D.
Matthew Moake, M.D.
Amanda Price, M.D.
Christopher Pruitt, M.D.
Margaret Rinaldi, M.D.
Christopher Stem, M.D.
Olivia Titus, M.D.
Christine Corley, NP
Jessica Nguyen Fisher, NP
Whitney Merrick, NP

Pediatric Endocrinology

Remberto Paulo, M.D. (Interim Div. Chief)
Elizabeth Fudge, M.D.
Ladan Davallow Ghajar, M.D.
Amy Kakkanatt, M.D.
Jadranka Popovic, M.D.

Pediatric Genetics

Neena Champaigne, M.D. (Div. Chief)
Kristen Lancaster, M.D.
G. Pai, M.D.
Lauren Thompson, M.D.

Pediatric Infectious Diseases

Allison Eckard, M.D. (Div. Chief)
Adeline Koay, MBBS
Jason Lake, M.D.
Lauren Powell, D.O.
Stephen Thacker, M.D.

Pediatric Sleep Medicine

Wendy Lyn Estrellado-Cruz, M.D. (Sect. Chief)
Meher Farooq, M.D.

Pediatric Gastroenterology

Benjamin Kuhn, D.O. (Div. Chief)
Rathna Amarnath, M.D.
Janaina Anderson, M.D.
Kristin Capone, M.D.
Rayna Grothe, M.D.
Candi Jump, D.O.
Nagraj Kasi, M.D.
Carmine Suppa, D.O.
Nancy Swiader, D.O.
Jordan Whatley, M.D.
Jennifer Beall, NP
Kelley Deaton, NP
Leslie Lane, NP
Karen O'Brien, NP

Pediatric Hematology/Oncology

Michelle Hudspeth, M.D. (Div. Chief)
Christina Abrams, M.D.
Shayla Bergmann, M.D.
Anca Dumitriu, M.D.
Ashley Eason, M.D.
Frances Frigon, M.D.
Jennifer Jaroscak, M.D.
Jacqueline Kraveka, D.O.
Andrew Picca, D.O.
Victoria Sexton, Psy.D.
Sherri Smart, M.D.
Lori Burton, NP
Deborah Disco, NP
Earleisha Felder, NP
Jessica Gardner, NP
Abbey Harris, NP
Mary Johnson, NP
Kerry Maleska, NP
Kristine Meister, NP
Courtney Miller, NP
Emily Thatcher, PA
Catherine Warren, DNP
Anne Webster, NP
Emily Young, NP

Pediatric Nephrology

Katherine Twombley, M.D. (Div. Chief)
Ali Annaim, M.D.
Kelly Garrity, M.D.
Anita Perez, M.D.
David Selewski, M.D.
Naajah Hughes, NP
Katie Mcnamara, NP

Neonatology

John Cahill, M.D. (Div. Chief)
David Annibale, M.D.
Alison Chapman, M.D.
Katherine Chetta, M.D.
Dorothea Jenkins, M.D.
Lakshmi Katikaneni, M.D.
Frances Koch, M.D.
Laura Lach, M.D.
Kimberly Lee, M.D.
Ashley Osborne, M.D.
Julie Ross, M.D.
Heidi Steflik, M.D.
Carol Wagner, M.D.
Jessica Benes, NP
Margaret Conway-Orgel, NP
Carmen Dooley, NP
Kristin Elmore, NP
Bethany Evans, NP
Jessica Fragile, NP
Madeline Gandy, NP
Danielle Hall, NP
Jessica Harrison, NP
Kylie Hopkins, NP
Seanna Houston, NP
Sarah King, PA
Kiersten Lebar, NP
Meredith Ledbetter, NP
Tyner Lollis, NP
Patti Long, NP
Kristina Manning, PA
April Martinez, NP
Amber Monroe, NP
Heather Ryle NP
Amanda Suarez, PA
Jessica Shearer, NP
Cameron Shiflett, NP
Carlene Speaks, NP
Lindzie Smarch Durham, NP
Katherine Vincent, NP
Shannon Braucher, NP
Alanna Shiflett, NP
Ashley Klumb, NP
Bresney Fanning, NP
Christina Baxter, NP
Jillian Tortorigi, NP
Laura Orr, NP
Lauree Stark, NP
Tamatha Huneycutt, NP
Whitney Savino, NP

Pediatric Neurology

Dalila Lewis, M.D. (Div. Chief)
Sonal Bhatia, M.D.
Barbra Giourgas, M.D.
Mariana Grossi Bessa Szuchmacher, M.D.
Thomas Koch, M.D.
Salvatore Rametta, M.D.
Purabi Sonowal, M.D.
Kathryn Taylor, D.O.
Amanda Watts, PA
Leigh Tollison, NP
Alison Rookard, NP
Savannah Wawner, PA

Pediatric Palliative Care

Conrad Williams, M.D. (Sect. Chief)
Kirstin Campbell, M.D.
Shannon D'alton, NP
Aminah Fraser-Abdur Rahim, NP
Cara Rehfuss, PA
Sophia Urban, M.D.
Carrie Cormack, DNP

Pediatric Hospital Medicine

John Pastore, M.D. (Div. Chief)
Stephen Ballis, M.D.
David Bundy, M.D.
Stephanie Kwon, M.D.
Patricia McBurney, M.D.
Sarah Mennito, M.D.
David Mills, M.D.
Elizabeth Oddo, M.D.
Kelly Roelf, M.D.
Andrea Summer, M.D.
Ronald Teufel, M.D.
Daniel Williams, M.D.
Jamel Brown, M.D.
Mason Walgrave, M.D.

Pediatric Primary Care – Children's Care Network

Henry Lemon, M.D. (Div. Chief)
Brenda Alvarado, M.D.
Christine Canivan, M.D.
Luke Edmondson, M.D.
Anna Hoffius, M.D.
Morgan Khawaja, M.D.
Carol Jones, M.D.
Maritere Nazario-Tapia, M.D.
Deborah Marrington, NP
Jessica Rodriguez-West, NP

Pediatric Physical Medicine and Rehabilitation

Scott Benjamin, M.D. (Sect. Chief)

Pediatric Primary Care – General Pediatrics

Debo Odulana, M.D.
(Div. Chief)
Angela Allevi, M.D.
Michelle Amaya, M.D.
Erin Balog, M.D.
Kathryn King, M.D.
Kristina Gustafson, M.D.
Kathleen Head, M.D.
Timothy Horgan, D.O.
Timothy Lukenbill, M.D.
Claire MacGeorge, M.D.
James McElligott, M.D.
James Roberts, M.D.
Jenny Nordby, M.D.
Ashley Perdue, M.D.
John Reigart, M.D.
Sara Ritchie, M.D.
Christine San Giovanni, M.D.
Marlo Smith, M.D.
Rachael Zweigoron, M.D.

Pediatric Pulmonology

Shean Aujla, M.D. (Div. Chief)
Chung Lee, M.D.
Sylvia Szentpetery, M.D.
Cheryl Kerrigan, NP
Rachael Sims, NP

Pediatric Rheumatology

Natasha Ruth, M.D. (Div. Chief)
Mileka Gilbert, M.D.
Emily Vara, D.O.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