

INSIDE

PEDIATRICS

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Dr. Jerry Oakes Reflects
on Storied Career, page 10

Imaging Lab Gives
Surgeons 3-D View of
Anatomy, page 8

Adolescent Medicine
Physicians Broaden
Community Reach, page 6



Children's
of Alabama®

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The world of pediatric health care has made astounding strides in the past 100 years. Consider the impact of advances in technology that today allow us to diagnose and treat illness and injury that would have been impossible in the past.

One of the most exciting high-tech approaches to providing care is found in our 3-D imaging lab. Layered images provide unprecedented views of the body and its anatomy that enhance the diagnostician's ability to identify and pinpoint disease, and equip the surgeon to better plan and perform exacting procedures. The pictures created here in Children's 3-D imaging lab are so precise, they can be found in the 41st edition of Gray's Anatomy.

As he ends his 45 years of clinical practice, world-renowned pediatric neurosurgeon Jerry Oakes, M.D., has seen his share of medical advances and, quite literally, wrote the book on many. I hope you'll read more about this legendary expert in hydrocephalus and Chiari malformations on page 10.

Likewise, Edward Taub, Ph.D., has blazed trails throughout his career to help children regain use of limbs affected by brain injury. His groundbreaking approach to constraint-induced movement therapy outlined on page 3 has made dramatic changes in the lives of the 600 or so children who have undergone the therapy since Taub created the program here at Children's in 2007.

Sometimes, though, as valuable as technology is, the need for some "low-tech, high-touch" care is vital to the recovery of a patient, particularly when that patient is a child. All of our staff know this and incorporate it into their daily work. Some of our divisions are

built upon that premise. Our Palliative and Supportive Care program, headed by Sam Perna, D.O., continues to make valuable strides in moving the discipline beyond end-of-life care and expanding the scope of what can be done to support our patients and their families during those difficult days of transition.

In Adolescent Medicine, our physicians use that personal approach by getting out into the community, the schools, the churches and even the juvenile corrections system to help teens navigate through such challenges as pregnancy and sexually transmitted disease prevention, eating disorders and weight management.

I hope you'll enjoy reading more about these fine programs and the dedicated pediatric experts behind them who have a gift and a vision for melding the most sophisticated tools medicine has to offer with the simple touch from a caring heart.

Mike Warren



CI Therapy Treatment Extends Worldwide

If an arm is injured, occupational therapy is usually prescribed to regain lost strength and function. But what if the brain that controls that arm is the site of the injury? Strength and function may be affected, but it's not the arm that needs to be healed. It's the brain.

That is the foundation of pediatric constraint-induced movement therapy, or CI therapy, conducted at Children's of Alabama. Developed by Edward Taub, Ph.D., a psychologist at the University of Alabama at Birmingham (UAB) who also serves as scientific director of the Children's program, pediatric CI therapy is a family of treatments that teach the brain to "rewire" itself following a major injury such as stroke or head injury. Taub's research has shown that patients can learn to improve the ability to move the weaker parts of their bodies instead of relying primarily on the stronger extremities. To train the brain to make the affected arm function, the stronger arm is completely restrained for up to three weeks using a lightweight fiberglass cast that extends from the upper arm to the fingertips. Then the weaker arm is trained to perform a series of movements using shaping techniques in a play situation that is appropriate to the child's stage of development.

"The focus of CI therapy is to get a child to increase use of an impaired arm," Taub said. "This is done under a therapist's skilled guidance in the clinic so that the quality of the child's movements is improved. Of at least equal importance is inducing the child, with the help of a parent, to continue increased use of the improved movement at home for important routine tasks, such as using a spoon or fork to eat, putting on and taking off shoes and socks, brushing teeth and so on. This is the key. The more the child uses an impaired arm that they haven't been using, the easier it becomes to use it, and then the child will use the arm still more; this is a great positive feedback loop. And that is what produces the neuroplastic change in the brain that we have observed after children have received CI therapy."

The therapy is done in a series of sessions conducted by a specially trained occupational therapist. Children's has six on staff in the physical and occupational therapy department. The regimen includes a three- to four-hour session every weekday for two to three weeks, depending on the severity of the symptoms. The therapist engages the patient in fun new games and activities in order to elicit useful movements and motor skills. The treatment also includes helping children with activities of daily living, such as eating, self-care and outdoor play to help the child put into practice the new skills acquired, providing confidence and independence in a variety of situations. Continuing treatment with home practice is an integral part of CI therapy, so parents are given home practice activities to conduct while the child is undergoing therapy and

afterward to assure optimum skill retention. The therapist also conducts regular half-hour follow-up sessions with the family after completion of the program to assess how well and how often the child is using the skills attained during the program.

"CI therapy has significantly improved quality of movement and substantially increased the amount of use of the more-affected extremities in the activities of daily living for a large majority of children who have received the treatment," said Angi Griffin, Outpatient Coordinator, Occupational Therapy Department, and Director, Pediatric CI Therapy Program. "It is the only rehabilitation technique shown to produce a marked change in brain organization and function. There is also a great deal of evidence for the clinical effectiveness of CI therapy, including an NIH-supported multisite randomized clinical trial."

Since the CI therapy clinical program began at Children's in 2007, more than 600 patients have undergone treatment. More than half are not local to the Birmingham area, and an astounding number come from all over the world. Griffin said she receives about 20 inquiries about the program every week and is already scheduling patients for the summer of 2018. In addition to providing the therapy, Griffin and her team also train other occupational therapists from across the globe in the correct application of the technique in pediatrics.

CI therapy is most effective in children with cerebral palsy, strokes, traumatic brain injury or who have undergone hemispherectomy.

More information is available at www.childrensal.org/pediatrictherapyoutpatientprogram.



The CI therapy team at Children's of Alabama, seated from left, Jane Colburn, OT; Jackie Brunson, OT; Margiean Burks, OT; and Edward Taub, PH.D. Standing from left, Anna Ballenger, OT; Brice Lambert, Data Management; and Angi Griffin, Director, Pediatric CIMT.

Palliative and Supportive Care Better Quality of Life

Depending on the illness or injury, there are specific milestones to track a child's condition or progress toward recovery.

Sam Perna, D.O., said one of those milestones comes the day the child feels up to watching a favorite television show or reading a book. "I get satisfaction in seeing patients do the things they want to do. When a mom looks at me with tears in her eyes and says, 'My child was herself today,' that's when I find my work so rewarding," Perna said.

Perna is the medical director of the palliative and supportive care team at Children's of Alabama and an assistant professor at the University of Alabama at Birmingham. The Palliative and Supportive Care Team is a collaboration that was established in 2009 between Children's and UAB. The team provides comfort care for children with advanced, serious illnesses. They work with other specialists, including pastoral care, child life, social work, psychology and physical therapy, along with the patient's physicians, with one goal in mind – to improve the quality of life for both the patient and family.

Palliative and supportive care focuses on four domains of suffering. While physical suffering is most commonly associated with an illness and hospitalization, palliative care also addresses social, emotional and spiritual suffering. The palliative care team looks for opportunities to partner with the primary care team, the parents and the child. "It is torture for parents to see their child suffering. And when the parent is distressed, that affects every other element of care and can impact the entire medical team. By helping the child, we also help the parent and the primary team," Perna said.

There is a perception that palliative care is just another term for hospice care, but Perna is quick to dispel that notion. "All hospice is palliative care, but not all palliative care is hospice." Palliative care encompasses so much more than end-of-life care. At Children's, the palliative care team provides consults for pain, medical decision-making, complex symptom management, care coordination and family support for patients with serious illness.

UAB Assistant Professor Garrett Hurst, M.D., also part of the palliative and supportive care team, recalled the story of a patient with anti-NMDA receptor encephalitis. The team was brought in by the medical team to provide "out of the box" thinking. "What can we add to the treatment plan so that the patient is less symptomatic? What can we do to help the patient feel more comfortable? Those are the questions we start out asking. In cases when we can help symptom-wise, that's a success for us." Hurst said.



Shirella Jackson and daughter Destiny Jackson. The palliative and supportive care team's No. 1 goal is to improve the quality of life for both the patient and family.

Hurst added, "During this patient's hospitalization, we were able to build a long-term supportive relationship with the family. The palliative care team is the same set of faces, no matter what floor the patient may move to, no matter which resident team has been assigned. For children who are here for an extended hospitalization, there may be little familiarity due to the nature of teaching institutions such as Children's."

Once those relationships are established, the team can help families decide what treatments make the most sense so that the patient can have an improved quality of life. "For instance, the thought of placing a child on a ventilator could seem like a last resort for a family, but it could also mean a better outcome for all. We can help them see that the perceptions of certain treatments they have may not be true. We can help families put words to what they are looking for when they don't know the words to use," Perna said.

When it comes to that part of the job, Hurst said he tries to listen more than talk. "Parents

want to be heard. Understanding what they want for the child and the family is just the beginning. Sometimes it can be challenging for them to communicate back to the medical team. Parents know their children best. The doctors know the medicine the best. With a sick child, it can be so hard to know what will happen and what to expect. Children can do unexpected things, and when the science doesn't match up, we can give legitimacy to the parents' concerns," Hurst said.

The team works together to serve a variety of departments throughout the hospital, but palliative care clinician Lynn Vaughn, MSN, RN, has a dedicated position embedded in the NICU. In 2015, one-third of all the palliative care consults at Children's were in the NICU. In fact, Children's is among a handful of institutions nationwide with a palliative care clinician embedded in its NICU.

"When a baby is admitted to the NICU, we provide emotional support for the parents. They may have been expecting a healthy baby, and it can be a big shock to them when the baby is transported here. Parents have said to me, 'I didn't know this world existed,'" Vaughn said. "We can help the parents who may need help understanding treatment options and new medical terminology."

In 2009, the team completed 105 consults. By 2015, the number of consults had jumped to a total of 339. "We want to provide pediatric palliative care for as many patients who need it," Hurst said. "Many patients could be helped by palliative care just by the nature of being hospitalized. If you are sick enough to be in the hospital, you might benefit from palliative care."

Over time, the increase in palliative care consultations could be attributed to the evolving nature of health care. Traditionally, doctors have assumed a paternal position, taking the lead in dictating a treatment plan. Today, however, patients – and in the case of Children's, the parents or guardians of the patients – are taking a more autonomous approach by becoming more involved in making health care decisions, Hurst said.

"Our role in palliative care is to bridge the gap between that paternal and autonomous environment. As families come to

understand that we are more than just end-of-life care and see that we can help with pain

management; as people see our value, our involvement increases," Hurst said.

More information is available at www.childrensal.org/palliativecare.

"All hospice is palliative care, but not all palliative care is hospice."

From left, Sam Perna, D.O., Shirella Jackson, Destiny Jackson, Lynn Vaughn, MSN, RN, and Garrett Hurst, M.D.



Adolescent Medicine Center Embedded in Community



Children's of Alabama Adolescent Medicine Physicians, from left, Stephanie B. Wallace, M.D., MSPH, Tina Simpson, M.D., MPH, Marsha S. Sturdevant, M.D., and Nefertiti Durant, M.D., MPH.

Four adolescent medicine physicians at Children's of Alabama and the University of Alabama at Birmingham are making an impact not only on young patients' lives, but in the community, too.

Giving their time and effort to specialized clinics at Children's and to other health care-related organizations and events is a priority for Nefertiti Durant, M.D., MPH; Tina Simpson, M.D., MPH; Marsha S. Sturdevant, M.D.; and Stephenie B. Wallace, M.D., MSPH.

"In talking with my colleagues around the country, community involvement isn't limited to adolescent care physicians," Wallace said. "But you can't be a pediatrician without having a big heart for kids."

The four physicians are part of Children's Adolescent Health Center team. Their patients typically are ages 11 to 21. Wallace has been director of Children's weight management clinic since 2008. The clinic recently was renamed SHINE – Support, Help and Instruction in Nutrition and Exercise.

"The acronym gives it a brighter spin," she said. "It's often not a happy occasion when kids are told they're heavier than they need to be. It's really where I'm looking for healthier, happier kids."

Wallace has taken part in the Youth First NObesity Expo and 5K for Kids, a festival aimed at combatting childhood obesity among Birmingham youth. She and Simpson also are involved with Take a Child to the Doctor Day.

"This is a great local event, with health screenings and information on nutrition and safety," Simpson said. "This is our eighth year. We're proud of this event because of the partnerships with other entities at Children's, such as diabetes, physical therapy and nephrology, and with the City of Birmingham Mayor's Office Division of Youth Services and the YMCA Youth Center."

Simpson also has chaired the board of the Alabama Campaign to Prevent Teen Pregnancy's for several years.

"Prevention is so important," she said. "Teen pregnancy is not the worst thing that could happen to someone, but often these teens miss out on educational and employment opportunities. We try to educate them and provide information on pregnancy and STDs."

Sturdevant, who is retiring from Children's in January, is the medical director of Children's Adolescent Eating Disorders

Clinic. She's been involved with the clinic since 1991. "We work with an interesting group of people and help with nutritional and medical problems," she said. "I like being motivational."

Sturdevant said research suggests that "we've always had eating disorders."

"But now, younger people – more people in the 8 to 11 age range – are being diagnosed," she said.

Durant said it's important to "reach adolescents where they are."

"You have to understand what they're doing," she said. "You have to get into schools, into their homes, and see things from their perspective. Even if it's a chronic disease issue, whatever difficulties they're having are often informed by psychological and environmental factors."

Durant developed a website, with grants from the American Heart Association and the Robert Wood Johnson Foundation, to promote physical activity – an issue she said she's been "especially focused on." She also is medical director of Children's Menstrual Disorders Clinic, which kicked off a few months ago.

In addition, Durant is part of a team of researchers who evaluated physical activity among obese and overweight African-American female college students. One study, which evaluated a culturally adapted, internet-enhanced physical activity pilot intervention, resulted in participants engaging in moderate to vigorous physical activity for 115 minutes per week – up from 82.5 minutes per week – over a three-month period.

Other clinics and programs in which the four physicians are involved deal with adolescent issues such as nutrition, ADHD, HIV and, through Children's LEAH Clinic, the evaluation and treatment of young adults with complex medical-psychosocial needs.

"We all work together," Wallace said. "Sometimes I'm surprised to see what my colleagues are doing."

Simpson said community work and advocacy are "something most pediatricians are passionate about."

"Most adolescent medicine programs, including ours, have an emphasis on advocacy and advocacy-related activities," she said. "It's like you find it and it finds you – it's a fabric of your being."

More information is available at www.childrensal.org/adolescent-health-center.

Lab Calls on 3-D Imaging To Treat Patients

We live in a three-dimensional world, yet most physicians and surgeons diagnose, treat and operate on their patients using flat images that often present a less-than-perfect reflection of what is going on inside the body. But as with so many aspects of daily life, cutting-edge technology is providing a decisive upgrade to that process.

Increasingly, 3-D imaging is providing a clearer, less invasive and more realistic view of joints and organs that is proving to be especially valuable in pediatrics. That's why Children's of Alabama established one of the first pediatric 3-D imaging labs when its 12-story, 760,000-square-foot expansion opened in 2012. Jon Betts, RT(R)(MR), serves as a 3-D Imaging Technologist in the lab, working closely with physicians in a number of

services to provide the post-processing images they need to form effective treatment plans. Data is taken from regular scans and reformatted using various software platforms to produce the 3-D image.



"I ask them, 'What are your needs?'

And then I figure out how to give them what they need, using several different systems," Betts said. "The scans are done with standardized data sets. They can then be layered to stack as many data sets as needed to create the 3-D image."

At Children's, 3-D imaging is playing a vital role in surgery. "It helps the surgeon visualize the procedure and make the best plan," Betts said. "It also helps patients and their parents understand what will be done during the surgery."

In Pediatric Neurosurgery, the 3-D images are especially effective for treating epilepsy. Scans are made during seizures to find the focus of the epilepsy and used to help plan the procedure. They are also used in conjunction with a surgical

guidance computer in the OR during the procedure to pinpoint the area of concern.

Orthopedic surgeon Michael Conklin, M.D., has found these enhanced views, which can be manipulated and rotated on the computer screen to provide a 360-degree perspective, to be invaluable when evaluating particularly complicated structural



anomalies such as kyphoscoliosis and planning surgical correction of such deformities. "It's difficult to appreciate the deformity when looking at just one plane," he said. "Three-D imaging allows us to look at each vertebra."

Conklin and his colleagues also use the technology to monitor post-surgical healing of fractures, particularly those that require screws, pins and other hardware. The 3-D image shows in great

detail – and in a non-invasive manner – the precise placement of the hardware, any movement during healing or any deterioration of the device.

Blood flow and anatomical abnormalities are quickly assessed via 3-D imaging by the cardiologists and surgeons in Children’s Cardiovascular Services. The images provide a clear illustration

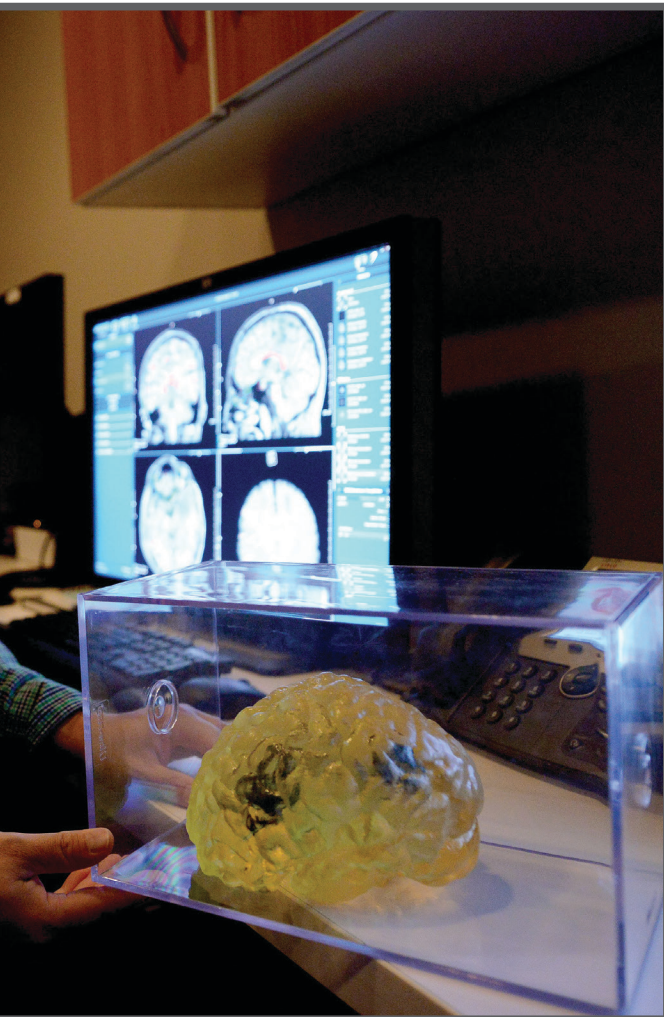
is “a really big benefit” in aortic reconstructions for patients with single ventricle heart disease, Dabal said.

In addition, the use of 3-D imaging to demonstrate complex intracardiac relationships is a welcome advancement. “To open the heart and to visualize a baffle for a pathway inside the heart [using 3-D imaging] makes it a lot easier,” he said.

Three-dimensional imaging provides pulmonologists the ability to perform non-invasive virtual bronchoscopy. Post-processing PET and CT scans in cancer patients allows oncologists to compare the growth and development of tumors precisely.

The highly realistic picture of an organ or other body part that is created through 3-D imaging can also serve purposes outside the hospital. The child abuse experts at Children’s, for example, present 3-D images as evidence in court proceedings.

“Three-D imaging has absolutely revolutionized radiography,” said pediatric radiologist Daniel Young, M.D., FACR. “It’s gotten faster and better. We’ve gone from the VW to the Ferrari.”



Children’s of Alabama 3-D Imaging Technologist, Jon Betts, center, works closely with physicians to provide the post-processing images they need to form treatment plans. Opposite page, a 3-D image of a heart; above, brain fibers.

of the structure of the heart and its vessels that is valuable in determining treatment and mapping out surgical intervention.

Cardiothoracic surgeon Robert Dabal, M.D., said 3-D imaging proves valuable in two applications – single ventricle heart disease and intracardiac baffles. Creating 3-D versions of 2-D patches

Renowned Neurosurgeon Looks Back on Storied Career

In a career that spans 45 years, a library of published research, an international reputation, countless invitations to guest lecture at some of the world's most prestigious conferences and universities, and untold lives saved or improved at his hands, pediatric neurosurgeon Jerry Oakes, M.D., has much to be proud of. But on the eve of his retirement from clinical practice, he says his greatest accomplishment is embodied in the pediatric neurosurgery residents and fellows he has trained since coming to the University of Alabama at Birmingham and Children's of Alabama in 1992.

Pediatric neurosurgery in the United States is a very small field with roughly 180 to 190 practicing surgeons. About 18 percent

of them have trained with Oakes. Curtis Rozzelle, M.D., was one of Oakes' residents and ultimately returned to Children's to work alongside his mentor. "Jerry Oakes is the reason I chose pediatric neurosurgery as a career," Rozzelle said. "He's the best teacher I've ever encountered at any level, and I now try to emulate his style of teaching. The single most important thing I learned from

him is to have a clear understanding of which patients can benefit from surgery and what can be done in the OR with the lowest risk of injury."

Despite the small size of the subspecialty nationwide, Oakes' division boasts five surgeons. Together they average 25 inpatients at any given time, admit another eight every day and see 30 outpatients in clinic every weekday. "We have an absolute monopoly in the state of Alabama," he explained. "No one else does what we do. We have to be full-service because we're the 'only show in town.' We do everything by necessity."

And while the caseload runs the gamut, Oakes' professional focus has been on treating children with spina bifida, Chiari malformations and hydrocephalus. He is considered by his peers to be a world expert on spinal dysraphism and has written chapters on it and other aspects of spina bifida in all the major neurosurgery textbooks.

About 20 percent of the procedures performed by Oakes and his team are shunt placements in premature infants, the only consistently effective treatment available for hydrocephalus. Shunt surgery for hydrocephalus in preemies born in other parts of the world, including Canada and Europe, is largely nonexistent, according to Oakes, either because the neurosurgeon is never called into the case or the pregnancy is terminated. In the United States, he said, the decision is regional, with the South accounting for a significantly higher rate of surgical intervention. "Here in Birmingham, babies are being saved at 23 to 24 weeks, and at least 10 percent have hydrocephalus," Oakes said.

Because of the volume and success rate of his work with hydrocephalus, Oakes was one of four senior pediatric neurosurgeons in North America

chosen in 2008 to form the Hydrocephalus Clinical Research Network. Other participating programs are located in Toronto, Seattle and Salt Lake City. Together, they gathered ideas and discussed steps for standardizing shunt placements, the most common procedure they perform. To date, 7,000 patients have been enrolled in the study to determine how to lower infection rates, how long a shunt should be expected to work without



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revision and the role of such variables as the use of antibiotics and placement of the shunt. Oakes is also involved in research into the effectiveness of endoscopic third ventriculostomy with choroid plexus cauterization, a procedure that dates back to the 1920s that has gained renewed attention from neurosurgeons. Thus far, it appears to be successful in about half of the spina bifida patients who undergo the surgery. The research is investigating how applicable it is to a large population. "You have to venture forward and take some risks to achieve progress," Oakes said.

Similarly, he has built an international reputation from his work with children with Chiari malformation. "He has operated on more kids with Chiari malformations than anyone in the world," said R. Shane Tubbs, Ph.D., Chief Scientific Officer for the Seattle Science Foundation. Together, they have published more than 200 papers on Chiari malformations and are the senior editors of the monograph "The Chiari Malformations," published in 2013 by Springer. Under Oakes' direction, Children's was invited to participate in the Park-Reeves Initiative, the largest privately funded, prospective multidisciplinary study and registry of patients with the Chiari malformation. To date, Children's remains the largest enroller of patients for this important registry and is an international referral center for Chiari malformations. Oakes and Tubbs were recognized by their colleagues at the 2012 American Association of Neurological Surgeons Meeting when they were invited to give an entitled presentation identified as "Best of the Best" and addressed outcomes from Chiari I malformation decompression surgery.

In December 2016, Oakes will end his clinical practice, which will give him more time to spend in his Vermont home and in his woodworking shop, where he's found respite from stressful days over the past 40 years. "You have to have something else to relieve tension," he said. "In my workshop, no one is injured, no one is upset, no one dies."

Jerry Oakes, M.D. relieves stress in his woodworking shop. "In my workshop, no one is injured, no one is upset, no one dies," Oakes said.

ECMO Program Earns Award For Excellence in Life Support

The Extracorporeal Membrane Oxygenation (ECMO) program at Children's of Alabama recently received the Platinum Level Extracorporeal Life Support Organization (ELSO) Award for Excellence in Life Support. The award recognizes programs worldwide that distinguish themselves by having processes, procedures and systems in place that promote excellence and exceptional care in ECMO. The award also signifies to patients and families a commitment to exceptional patient care. The Platinum Level distinction recognizes programs with high-quality standards and processes in place, specialized equipment and supplies, defined patient protocols and advanced education for all staff members.

The ECMO program at Children's uses a heart-lung bypass machine to help critically ill or injured patients provide oxygen to the blood while allowing the heart and lungs to heal or rest. Most patients requiring ECMO are newborns who have difficulty shortly after birth due to infection, meconium aspiration, congenital diaphragmatic hernia or pulmonary

hypertension, cardiac patients, or children suffering from respiratory failure infections. It is only used after all other medical treatment has failed and the odds of survival without it would be less than 20 percent.

Children's ECMO Center is equipped with eight machines and staffed by trained ECLS specialists, including 40 RNs, two respiratory therapists and four perfusionists. The physician team includes pediatric surgeons, a pediatric intensivist and a neonatologist. The staff averages more than nine years of ECMO experience. Children's was one of the first pediatric hospitals in the southeast to offer ECMO in 1987. Since that time, more than 600 children have received the treatment – an average of 24 cases per year.

Specialty rooms for ECMO treatment were incorporated into the design of Children's Benjamin Russell Hospital building that opened to patients in 2012. The rooms offer flexibility, privacy and the opportunity for families to stay at bedside.



News, Honors & Awards

- UAB PCD CLINIC AT CHILDREN'S BECOMES FULLY ACCREDITED CENTER

The UAB Primary Ciliary Dyskinesia (PCD) Clinic at Children's of Alabama, the only PCD clinic in the region, is now accredited as a full center in the Primary Ciliary Dyskinesia Foundation Clinical and Research Network (PCDF-CRCN). The UAB Department of Pediatrics and Children's of Alabama clinic is one of only four in the country to have achieved this designation.

- PEDIATRIC CRITICAL CARE UNIT SELECTED TO PARTICIPATE IN PCOR-ICU COLLABORATIVE

The UAB Department of Pediatrics division of Pediatric Critical Care has been accepted as a participant in the Society of Critical Care Medicine's PCOR-ICU Collaborative: Improving Care for Critically Ill Patients and Families through Research Dissemination and Implementation, which is funded by a Eugene Washington Engagement Award from the Patient-Centered Outcomes Research Institute.

- CHILDREN'S OF ALABAMA RECEIVES NATIONAL AWARD FOR PICU IMPROVEMENTS

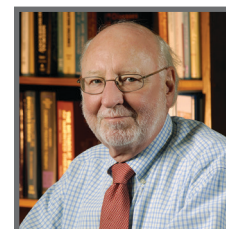
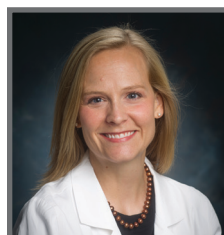
Children's of Alabama was recognized by the Children's Hospital Association (CHA) with a Pediatric Quality Award for waste reduction and improved efficiency.

- U.S. NEWS & WORLD REPORT NAMES CHILDREN'S OF ALABAMA AMONG TOP PEDIATRIC HOSPITALS

U.S. News & World Report has once again ranked Children's of Alabama among the best children's hospitals in the nation. Eight of Children's pediatric specialty services – cardiology/heart surgery, diabetes/endocrinology, gastroenterology/GI surgery, neonatology, nephrology, neurology/neurosurgery, pulmonology and urology – were ranked among the top 50 in the U.S. in the 2016-17 Best Children's Hospital rankings. It is Children's seventh consecutive year to be ranked. Children's is the only pediatric facility in the state of Alabama to have been ranked and one of just 36 hospitals with eight or more specialties on the list of more than 180 hospitals that were surveyed.

- TWO DEPARTMENT OF PEDIATRICS FACULTY AWARDED 2016 DEAN'S EXCELLENCE AWARDS

Two outstanding Department of Pediatrics faculty members were named recipients of the 2016 UAB Dean's Excellence Awards, an honor recognizing exceptional contributions made by the School of Medicine faculty in service, teaching, research, diversity enhancement and mentorship. Lauren Nassetta, M.D., below left, assistant professor of Pediatrics in the Division of Pediatric Hospital Medicine, is a junior faculty winner of the Dean's Excellence Award for Teaching. Richard Whitley, M.D., below right, Distinguished Professor of Pediatrics, is a dual senior faculty winner of the Dean's Excellence Award in Research.



- DR. ABDUL-LATIF RECEIVES THE SAM EICHOLD CAMP SEALE HARRIS AWARD

Hussein Abdul-Latif, M.D., Pediatric Endocrinology, recently received the Sam Eichold Camp Seale award in recognition for his years of service at one of the oldest diabetes camps in the country. Camp Seale Harris is the primary program of Southeastern Diabetes Education Services (SDES). The award is named after Dr. Sam Eichold, who established the diabetes camp in Alabama more than 50 years ago. It is given once a year to a medical staff (nurse, physician or diabetes educator) in recognition of their service for the children with diabetes who come to Camp Seale Harris.

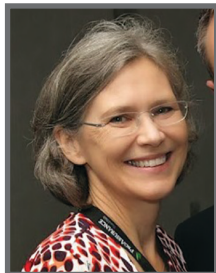


- DR. AMBALAVANAN TO SERVE ON AAP NEOPREP PLANNING COMMITTEE

Namasivayam Ambalavanam, M.D., Neonatology, has been selected to serve on the NeoPREP Planning Committee Team, which is sponsored by the Section on Neonatal-Perinatal Medicine of the American Academy of Pediatrics (AAP).

News, Honors & Awards

- DR. BENTON TO SERVE ON AAP MOC PANEL



Cason Benton, M.D., FAAP, has been selected to serve on the American Academy of Pediatrics (AAP) Maintenance of Certification (MOC) Portfolio Review Panel.

- DR. KIMBERLIN SELECTED TO RECEIVE THE RMHC 2016 MEDICAL AWARD OF EXCELLENCE



The Ronald McDonald House Charities (RMHC) Board of Trustees selected David Kimberlin, M.D., Pediatric Infectious Disease, to receive the RMHC 2016 Medical Award of Excellence.

- DR. BHATIA SELECTED TO PARTICIPATE IN BLUE RIBBON PANEL

The National Cancer Institute (NCI) and the Blue Ribbon Panel (BRP) has invited Smita Bhatia, M.D., MPH, Pediatric Hematology and Oncology, to participate in the BRP Working Group on Pediatric Cancer. Through participation, Dr. Bhatia will be filling an essential role in advising the Institute and the National Cancer Moonshot.



- DR. LANDIER SELECTED AS AN AMERICAN ACADEMY OF NURSING 2016 FELLOW

The American Academy of Nursing selected Wendy Landier, Ph.D., RN, Pediatric Hematology & Oncology, among 164 highly distinguished nurse leaders in the 2016 class of Academy Fellows. New fellows are eligible to use the FAAN credential (fellow of the American Academy of Nursing) after the October induction ceremony. Dr. Landier's new credentials are Wendy Landier, Ph.D., RN, CRNP, PPCNP-BC, CPON, FAAN.



- DR. CRON TO SERVE ON 2017 SCIENTIFIC ADVISORY COUNCIL AS WELL AS CONTENT DEVELOPMENT TEAM FOR THE AMERICAN BOARD OF PEDIATRICS



Randy Cron, M.D., Ph.D., Pediatric Rheumatology, was recently selected by the Rheumatology Research Foundation to serve on their 2017 Scientific Advisory Board. In addition, Dr. Cron was nominated to serve on the Content Development Team (CDT) for the American Board of Pediatrics that will write items for the Pediatric Rheumatology in-training, certification and MOC exams.

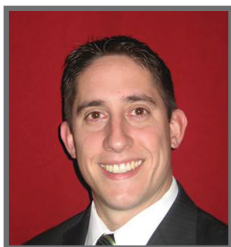
- DR. LAL SELECTED TO PARTICIPATE IN AAP YPLA



The American Academy of Pediatrics (AAP) selected Charitharth 'Vivek' Lal, M.D., Neonatology, to participate in the AAP Young Physicians' Leadership Alliance (YPLA) through the Section on Early Career Physicians (SOECP).

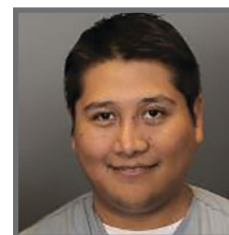
- DR. GALLOWAY APPOINTED TO NASPGHAN COMMITTEE

David Galloway, M.D., Pediatric Gastroenterology, Hepatology & Nutrition, has been appointed to the Clinical Care and Quality Committee of the North American Society for Pediatric Gastroenterology, Hepatology and Nutrition (NASPGHAN).



- DR. SALAS SELECTED FOR THE 2016 SPR YOUNG INVESTIGATOR COACHING PROGRAM

Ariel Salas, M.D., Neonatology, was selected as a Society for Pediatric Research (SPR) Young Investigator Coaching Program recipient.



- DR. TIPPLE SELECTED AS DISTRICT REPRESENTATIVE FOR MID-CAREER NEONATOLOGY GROUP



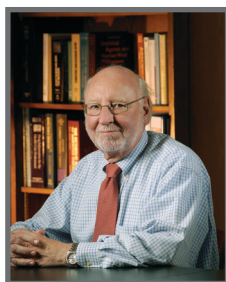
Trent Tipple, M.D., Neonatology, has been selected by the Section on Neonatal Perinatal Medicine (SONPM) as a SONPM District X Representative for the Mid-Career Neonatology group (MIDCaN).

- DR. WALLACE APPOINTED TO AAP COMMITTEE ON ADOLESCENCE

The American Academy of Pediatrics (AAP) recently appointed Stephenie B. Wallace, M.D., FAAP, Pediatric Adolescent Medicine, to the AAP Committee on Adolescence.



- DR. WHITLEY NAMED CHAIR OF THE RECOMBINANT DNA ADVISORY COMMITTEE



The Recombinant DNA Advisory Committee is a federal advisory committee that provides recommendations to the NIH Director related to basic and clinical research involving recombinant or synthetic nucleic acid molecules. Richard Whitley, M.D., Pediatric Infectious Disease, was recently named chair and will be reporting directly to Francis S. Collins, M.D., Ph.D., Director, National Institutes of Health.

- DR. YEE RECEIVES MARSHALL KLAUS NEONATAL-PERINATAL RESEARCH AWARD

Aaron Yee, M.D., Neonatology fellow, is the recipient of the 2016 Marshall Klaus Neonatal-Perinatal Research Award. This award is initiated by the American Academy of Pediatrics (AAP), Section on Neonatal-Perinatal Medicine (SoNPM), and Johnson & Johnson Pediatric Institute with the goal of enhancing and supporting development of research skills among physicians training in Neonatal-Perinatal Medicine.



- DR. POWELL JOINS STAFF AS STATE'S FIRST DEDICATED PEDIATRIC ORAL SURGEON



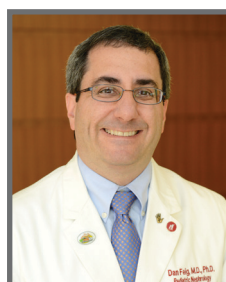
Kathryn Powell, D.M.D., M.D., also serves as an assistant professor in the University of Alabama at Birmingham School of Dentistry Department of Oral and Maxillofacial Surgery. Powell graduated from Auburn University with a bachelor's degree in biomedical sciences. She received her dental degree in 2009, followed by her medical degree in 2012, both from UAB. She completed a residency in oral and maxillofacial surgery, as well as a fellowship in pediatric oral and maxillofacial surgery, also both at UAB. Powell is a member of the American Dental Association and the American Association of Oral and Maxillofacial Surgery.

- DR. FRIEDMAN AWARDED ST. BALDRICK'S FOUNDATION GRANT

Gregory Friedman, M.D., Hematology and Oncology, is the recipient of a grant from the St. Baldrick's Foundation, the largest private funder of childhood cancer research grants.



- DR. FEIG NAMED ENDOWED CHAIR IN PEDIATRIC NEPHROLOGY



Daniel I. Feig, M.D., Nephrology, is the first holder of the Margaret M. Porter Endowed Chair in Pediatric Nephrology. Feig's research interest focuses on the physiology of early onset essential hypertension, as well as the prevention of hypertensive organ damage.

- DR. BEIERLE NAMED ENDOWED CHAIR IN PEDIATRIC SURGERY

Elizabeth Beierle, M.D., Surgery, is the first holder of the Charles D. McCrary Endowed Chair in Pediatric Surgery. Beierle's research interest lies in the study of pediatric solid tumors, specifically the signal transduction pathways involved in neuroblastoma.





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