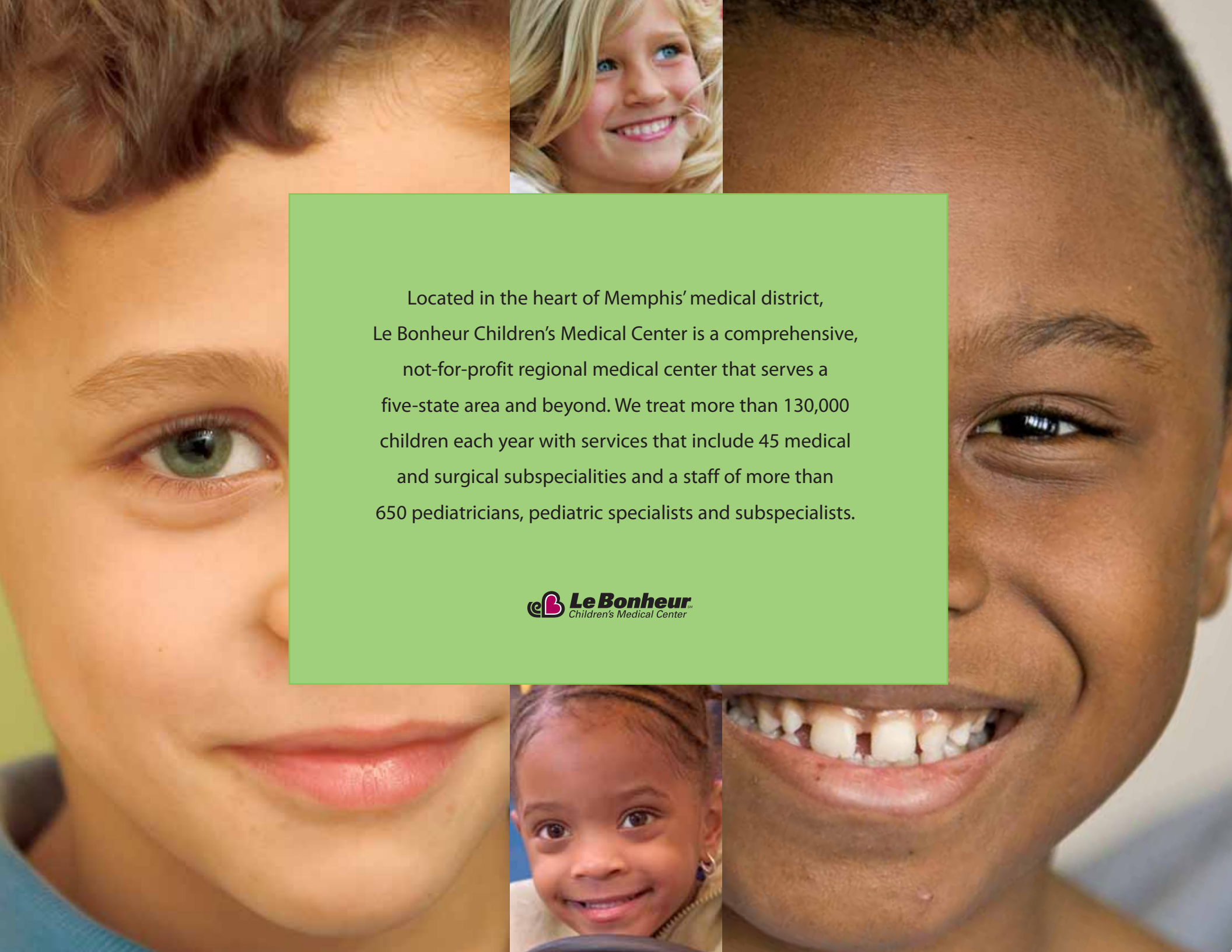


Le Bonheur (Lěbŏ-nûr'): *n.*





Located in the heart of Memphis' medical district, Le Bonheur Children's Medical Center is a comprehensive, not-for-profit regional medical center that serves a five-state area and beyond. We treat more than 130,000 children each year with services that include 45 medical and surgical subspecialties and a staff of more than 650 pediatricians, pediatric specialists and subspecialists.



Le Bonheur literally means “happiness.”

Le Bonheur literally means “happiness.” But for so many children and their families, it’s also a place of hope and healing, care and compassion.

Doing what’s best for children of the Mid-South and beyond guides everything we do. Our commitment to children is reflected through providing exceptional clinical care, finding new scientific discoveries and training future caregivers.

Our beginnings are humble. More than 80 years ago, a group of women began a sewing circle to make clothing for Memphis’ orphans, and eventually provided transportation to those orphans’ doctors appointments. When a group of local physicians dreamed of a hospital dedicated to children, they looked to these women to help. And help they did.

Today, Le Bonheur Children’s Medical Center is a leader in pediatric clinical care and research, and is the region’s premier teaching hospital for future pediatricians, pediatric surgical specialists and clinicians. Our partnerships with the University of Tennessee Health Science Center and St. Jude Children’s Research Hospital have helped build a strong reputation for both teaching and discovery.

We have a lot to celebrate. In the lab, our investigators are leading the global effort to find treatments for RSV, the most common cause of bronchiolitis and pneumonia among infants younger than 1.

Our Neuroscience Institute has become a national leader in treating children with brain tumors, epilepsy and sleep disorders. Outside of our walls, we’re building healthy families with community outreach programs that target neighborhoods with high rates of diabetes, asthma and obesity.

Our commitment to children began with our founders – and is woven through everything we do.



Meri Armour
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Le Bonheur Children's
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Russell Chesney, MD
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Landon Pendergrass, MD
*Le Bonheur Children's
Medical Center
Associate Chief of Staff*

Le Bonheur is a haven for healing.

When Le Bonheur Children's Medical Center opened in 1952, its No. 1 challenge was polio, a dreaded childhood disease that caused paralysis and death.

Before that decade was over, a polio vaccine was created and the threat of the fatal disease was nearly eliminated. Today, polio isn't on the minds of parents – but a new set of illnesses are.

Le Bonheur is still finding ways to save children.



The team of on-staff physicians includes 115 board-certified pediatric subspecialists – in areas ranging from orthopedics to cardiology. Those physicians are complemented with hundreds of Le Bonheur nurses, many of whom are board certified in the field of pediatrics and subspecialties like critical care, neonatology and surgery.

Their expertise runs the gamut. And so does Le Bonheur's ability to care for our community's sickest children.

Le Bonheur serves as the only designated pediatric trauma center in our region. Accidental injury, the leading killer of children older than 1, is a critically important problem in our community.

The hospital has specialized critical care with dedicated Pediatric, Neonatal and Cardiovascular Intensive Care units to provide state-of-the-art specialized critical care for these and other children.

Le Bonheur's 15-bed Neonatal Intensive Care Unit is ranked at a Level IIIC and provides care for neonates using the hospital's surgery capabilities, multiple subspecialists and the presence of extracorporeal membrane oxygenation (ECMO) on site.

The hospital's Pediatric Intensive Care Unit provided lifesaving care to more than 1,600 children in 2007. The unit is staffed by pediatric critical-care, fellowship-trained intensivists who can call on a team of dedicated pediatric surgical specialists.

The PICU is also home to the hospital's Transitional Care Unit, the first of its kind in Tennessee. The unit provides specialized care to children who are technology-dependent, while teaching families how to care for their children.



Marilyn Robinson, MD and Will Parnell

Will Parnell might have been the biggest baby in Le Bonheur's Neonatal Intensive Care Unit, but he still needed the expertise of the doctors who care for the smallest infants.

Born with a bowel obstruction, Will eventually would need three surgeries, two blood transfusions and top neonatologists looking out for him. Dr. Marilyn Robinson was leading the team that helped little Will get through his first Christmas.

Today, he is eating peas from his high chair and calling for more Cheerios.



In February 2007, Le Bonheur opened a five-bed Cardiovascular Intensive Care Unit to care for critically ill neonatal and pediatric patients with congenital heart defects. The unit is staffed with a dedicated team of pediatric intensivists, a cardiac intensivist, cardiologists, cardiothoracic surgeons, cardiac nurse practitioners, pediatric cardiac nurses and respiratory therapists.

Le Bonheur's orthopedic team was one of the first to offer a Vertical Expandable Prosthetic Titanium Rib, or VEPTR – new treatment for Thoracic Insufficiency Syndrome, a condition caused by congenital or early onset scoliosis. VEPTR is also used for hypoplastic thorax syndromes, such as Jeune Syndrome.

The implant addresses chest wall and spine deformities with

rods that hook to the ribs and spine or pelvis to help separate the ribs and support the chest, giving the lungs more room to expand and grow.

A new StealthStation imaging system gives orthopedic surgeons intraoperative navigation in cervical, thoracic and lumbar spine surgeries. Equipped with image-guided software that provides three-dimensional modeling of the spine, surgeons are now able to be even more precise with instruments in the operating room.

Advanced technology and great medical minds are enhanced by Le Bonheur's commitment to include patients and families in our care.

Some of the hospital's best advisers are its families. When possible they are included in nurse-to-nurse bedside reporting when outgoing nurses and incoming nurses discuss the patient's condition. Parents were also integral in helping Le Bonheur design its new hospital by advising leaders on how to lay out future patient rooms and suggesting what amenities to provide.

A 15-person Family Partners Council representing varied backgrounds and patient experiences regularly gives key advice from a parental perspective while a 17-member Teen Advisory Council helps Le Bonheur



understand what kids feel and think about spending time in the hospital.

Le Bonheur is a place of discovery.

From tackling a widespread infant respiratory disease to finding better drugs to stop seizures, investigators at Le Bonheur Children's are leaving their mark on pediatric medicine.

Le Bonheur is home to the Children's Foundation Research Center, combined effort between Le Bonheur, the University of Tennessee Health Science Center and the Children's Foundation of Memphis.



What started out as the common cold turned into a nightmare for the parents of 3-month-old Bryce Terry. Their introduction to RSV – or respiratory syncytial virus– landed their new baby in the hospital for more than



John DeVincenzo, MD and Bryce Terry

a week and left them wondering if he would survive.

Right now, RSV can result in hospitalization for the youngest infants. But if leading RSV investigator Dr. John DeVincenzo has his say, Bryce's story will one day be uncommon.

His life's work is making sure of it.

Here, 28 full-time investigators and more than 75 post-doctoral fellows, research technicians, research nurses and study coordinators work to translate clinical expertise into laboratory discoveries that save lives and advance science.

One of those investigators, Dr. John DeVincenzo, has spent his career fighting RSV – or respiratory syncytial virus – the most common cause of bronchiolitis and pneumonia among infants younger than 1.

His progress is substantial. RSV treatments developed by DeVincenzo are already given to premature infants, a group that is especially susceptible to the disease. He is currently conducting clinical trials on a new RSV treatment that incorporates the 2006 Nobel-Prize-winning discovery of RNA interference. His research could also lay the groundwork for developing treatments for other diseases.

The CFRC is also home to the Musette and Allen Morgan Jr. Foundation for the Study of Primary Sclerosing Cholangitis – a foundation working toward the discovery of new treatments for this rare-liver disease.

Le Bonheur also houses the national STOPSC registry, a multi-center database and DNA repository for patients with primary sclerosing cholangitis. The registry includes 13 major medical centers encompassing

18 pediatric and adult hepatology programs.

The project is designed to facilitate collaborative, hypothesis-driven and multi-center research on PSC. In addition, Le Bonheur is set to become a national leader in studying the effects of environmental toxins on children, with the help of Environmental Epidemiologist-Toxicologist Bryan Williams, PhD. Williams is forging a



partnership between Le Bonheur and the Centers for Disease Control to learn more about how exposure to toxins through air, water, land and housing materials affect children – particularly in regard to their neurological development. He will work closely with Le Bonheur physicians and the hospital's Neuroscience Institute.

With this work, Williams hopes to set the stage for Le Bonheur to be part of the National Children's Study, which examines the effects of environmental influences on the health and development of more than 100,000 children across the United States.

Le Bonheur's Neuroscience Institute is leading national efforts to advance research in pediatric neurology.

Institute Director Dr. James Wheless is the Mid-South's primary investigator for a National Institutes of Health study to test seizure drugs in children with absence epilepsy – a common version of the disease also known as "staring spells."

Investigators are also introducing a genetic component into the study in hopes of pinpointing a specific protein that is present in children affected with epilepsy.

The project, which includes 36 research centers across the country, is the largest pediatric epilepsy study funded by the federal agency.



Two additional and separate NIH-funded studies at Le Bonheur are investigating hypertension in African-American children and how genetics can affect low birth weight in full-term infants.

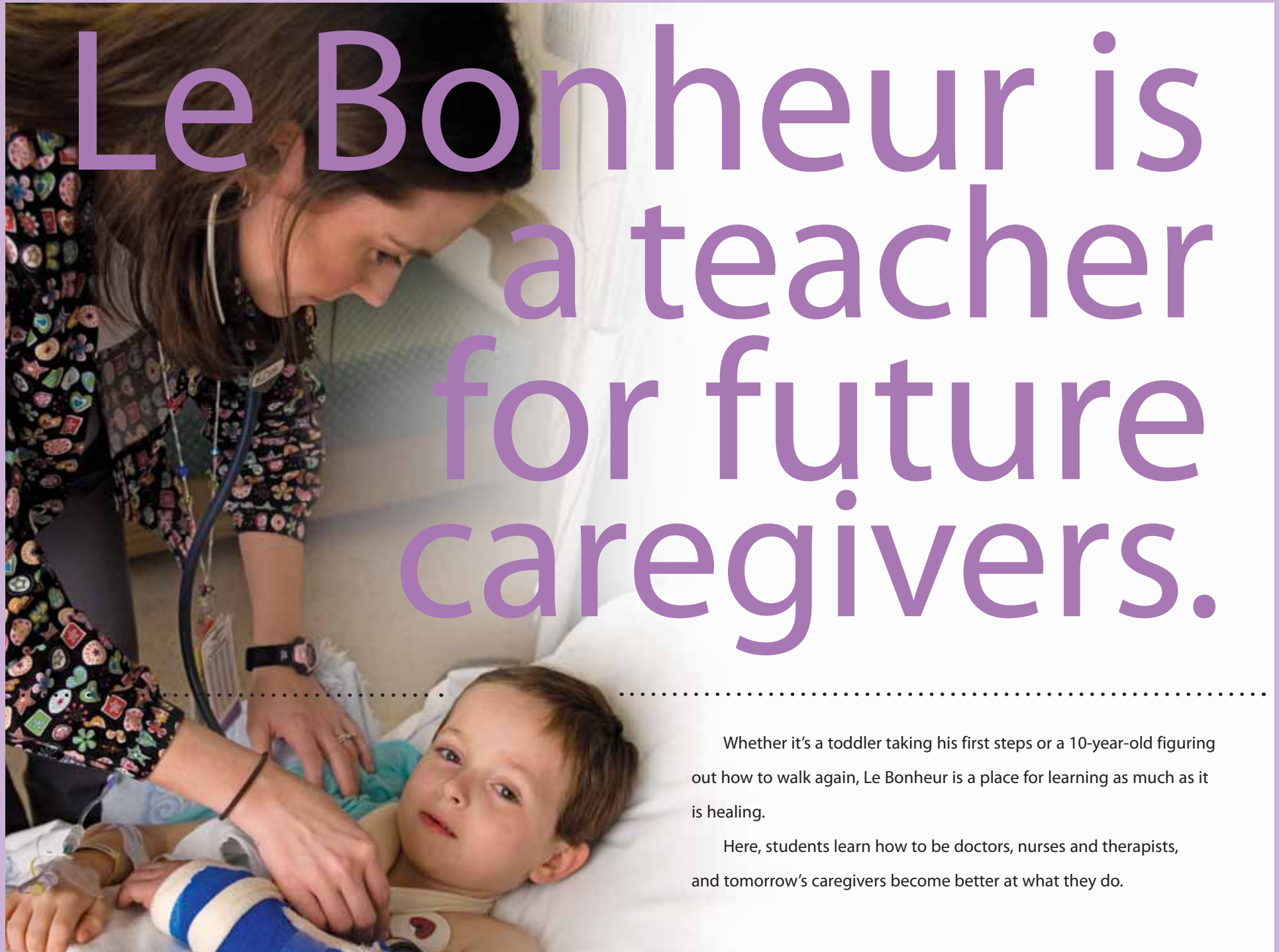
These studies are just some examples of how Le Bonheur clinicians are working to advance pediatric medicine as they care for children.

Le Bonheur is also a partner in pediatric clinical pharmacology programs with the University of Tennessee and St. Jude's Children's Research Hospital. The programs are

designed to improve drug therapy regimens in children by better understanding the physiologic and molecular bases underlying the relationship between a drug's disposition and its effect.

The programs are led by Mike Christensen, PharmD, who has special expertise in clinical pharmacokinetics and pharmacodynamics, pediatric therapeutics and pediatric clinical trials.





Le Bonheur is a teacher for future caregivers.

Whether it's a toddler taking his first steps or a 10-year-old figuring out how to walk again, Le Bonheur is a place for learning as much as it is healing.

Here, students learn how to be doctors, nurses and therapists, and tomorrow's caregivers become better at what they do.

Affiliations with the University of Tennessee Health Science Center and St. Jude Children's Research Hospital help bring great academic minds and teachers to Le Bonheur. Strong program reputations recruit young talent to our fellowship and residency programs and a diverse slate of other clinical training programs create a comprehensive



teaching ground at the hospital. In 2007, Le Bonheur trained 87 residents.

Le Bonheur's partnership with the University of Tennessee's College of Medicine allows us to train more pediatricians than any other hospital in the state. Here, future physi-

cians grow as scientists, caregivers, problem solvers and comforters.

The hospital has also established sought-after residency programs in some of our most acclaimed patient care areas. A new child neurology residency program will raise the hospital's profile by putting it on the map as a training center. Le Bonheur's depth of clinical knowledge and ability to attract from a large referral base make it an attractive prospect for future physicians.

Le Bonheur and UT also have one of the oldest pediatric pharmacy residency programs in the country. UT's College of Pharmacy boasts the largest number of faculty members who have attained Board of Pharmaceutical Specialties certifications of any College of Pharmacy nationwide.

Cardiologist Dr. Bruce Alpert had long questioned the conventional method of measuring blood pressure in infants and toddlers.

Cardiology fellow Dr. Kenneth Knecht, was searching for an innovative research project in the field. Knecht followed up on Alpert's question, with a little guidance. Knecht gathered data. Alpert edited his work. In the end, both were rewarded with a discovery that could potentially change the standard

for measuring blood pressure in young children. Knecht won the Southern Society for Pediatric Research Young Investigator Award and Alpert's theory was finally proven right.



Bruce Alpert, MD and Kenneth Knecht, MD



The hospital and university support residency training in pediatric pharmacotherapy and fellowship training in both pediatric pharmacotherapy and metabolic support to help develop research skills.

Fellowships in highly technical fields like neurology, neurosurgery, cardiology and orthopedics also bring top talent to the hospital. These fellows help to advance the future of pediatric medicine while becoming experts in their field.

Meanwhile, the hospital's **pediatric nurse intern program** is the only program of its kind in the Mid-South and has graduated more than 1,000 pediatric nurses in its 27-year history. .

Designed for graduate and registered nurses with less than one year of hospital experience, the program helps apply nursing theory, develop advanced nursing skills and provide excellence in a pediatric setting.

The hospital also offers child life internships for senior and graduate-level students. The program allows interns to participate in the development and implementation of therapeutic, educational and recreational activities for patients and families at Le Bonheur.

Internships are also available for respiratory therapists to receive expanded pediatric training. The program supports the transition that therapists make into pediatrics through formal education opportunities, peer support and clinical experiences with various types of pediatric patients in the critical care units. Career guidance and counseling also are available.



Le Bonheur is a leader in pediatric neuroscience.



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Every child who comes to Le Bonheur's Neuroscience Institute is afforded an abundance of resources.

Le Bonheur's pediatric neurosurgeons have some of the highest brain tumor resection rates in the country. Neurologists are treating pediatric epilepsy with new approaches, and cutting-edge technology is making it easier to diagnose neurological disorders.

Le Bonheur is home to one of the nation's largest pediatric brain tumor programs – a project that is shared with St. Jude Children's Research Hospital. The hospital's neuroscience team has documented some of the world's best survival rates for children



Rick Boop, MD and Anna Ives

The episodes were subtle. Anna Ives' eyes would roll back into her head for just a few moments, and then she'd be fine. But the incidents kept happening, and specialists kept ordering tests, just to investigate a little more.

What those specialists found was a tumor on the 2-year-old's frontal lobe, sitting close to a major vein. That's when one of the country's foremost pediatric neurosurgeons, Dr. Frederick Boop, was called in to save the day. By removing the tumor, Boop brought hope for a surgical cure – and the chance to be this red-head's hero for years to come.

with certain types of tumors. In fact, about half of the kids who undergo neurosurgery at Le Bonheur have been told by other children's hospitals that their situation is inoperable.

Advanced technology like the stereotactic system, which includes special lasers with image-guided technologies and fiberoptic pressure monitors, is used by surgeons to help remove tumors. In addition to successful resections, the brain tumor team is also working to develop better techniques and advance the science within their field.

Dr. Robert Sanford, who helped start the brain tumor program in 1985, recently completed a 15-year study demonstrating that surgical resection is curative for low-grade gliomas, the second-most-common type of brain tumor. In the most common type of pediatric brain tumor, medulloblastoma, a cure rate of 80 percent has been maintained with reduced morbidity through complete surgical resection.

In Le Bonheur's Level 4 Comprehensive Epilepsy Center, neurologists are changing the future of treating pediatric epilepsy. A seven-bed Epilepsy Monitoring Unit with 24-hour video/EEG



monitoring helps clinicians pinpoint seizure activity in children. Le Bonheur's epilepsy services also include neurosurgery, special diets designed to control seizures and national clinical trials to test epilepsy medications.

Le Bonheur was the first to utilize the latest advancement in Vagus Nerve Stimulation therapy – the only device approved to treat the disease. The small pacemaker-like device, which is implanted just under the skin, can activate various areas of the brain by sending electrical impulses.

Dr. James Wheless, director of the Le Bonheur Neuroscience Center and Comprehensive Epilepsy Program, has been involved in the development of VNS therapy since 1995.

Neurologists and neurosurgeons also have access to neuropsychologists, who use tests developed by cognitive psychologists to help diagnose neurological disorders. The neuropsychologists can use these tests to measure memory, language, motor skills, and other factors to reinforce that a certain area of the brain is affected.



State-of-the-art equipment also plays a key role in diagnosing and treating brain activity to pinpoint problems. Le Bonheur is the third pediatric hospital in the country with a magnetoencephalography, or MEG,

laboratory. For patients with epilepsy, the lab can non-invasively pinpoint the seizure onset zone. For tumor patients, the MEG lab can provide a surgeon with more information about probable outcomes.

Le Bonheur

also utilizes high-density EEG technology that helps evaluate children for epilepsy surgery and will be used as part of other upcoming research protocols.



Le Bonheur is an advocate for healthy families.

When it comes to caring for children, Le Bonheur is just as concerned about those who never see the inside of a hospital as those who grow up in our care.

Part of meeting the needs of a whole community is responding to what affects it today – issues like violence, teenage pregnancy and childhood obesity. Le Bonheur's Community Outreach is one of the nation's largest hospital outreach programs, touching nearly half a million children each year.

Building healthy families is at the core of what we do.



Le Bonheur's Child Assessment Program

is tackling violence against children in our community. Formed in October 2006, the project evaluates children entering the hospital who are possible victims of abuse.

The program is led by Susan Steppe, Tennessee's former director of Child Protective Services. She is part of a team of caregivers that includes Medical Director Karen Lakin – a physician specially trained to identify signs of abuse. The team works to respond to abuse and neglect with assessment, intervention and prevention.

The Child Assessment Program is just one of a handful of programs under Le Bonheur's Center for Children and Parents. The umbrella program provides services to children and families at risk for physical, psychological or developmental problems resulting from all sorts of family crisis situations.

Its programs include those that help young mothers and fathers as they respond to the challenges of teen parenthood, mothers who are in stressful situations or fathers who are trying to develop healthy relationships with their children.



Soon after Jasmine Fitzgerald started complaining of shortness of breath, she felt like her chest was caving in. The quick-thinking fifth-grader told her mom that she needed to go the hospital. Jasmine knew all the signs of this impending asthma attack, thanks to what she learned in her school's asthma education class.

There, Le Bonheur Community Outreach asthma educator Jennifer Douglas had taught her what an attack would feel like, what medications could help her and what might trigger an attack.

It's knowledge that just might have saved her life.

Jennifer Douglas, RN and Jasmine Fitzgerald





Le Bonheur Children's will open a new \$327-million hospital in the summer of 2010. The 610,000-square-foot, 12-story hospital will double Le Bonheur's current space for patient care, research and teaching.

The new Le Bonheur will have 225 beds, including dedicated units for pediatric, cardiovascular and neonatal intensive care. It will also feature a 14-room surgical suite, a two-room cardiac catheterization laboratory, interventional radiology suite and an endoscopy suite.

Designed around the needs of patients and families, the new hospital will feature a mini-movie theater, private patient rooms designed to accommodate two parents and a parent stay unit for family members who want to stay close to their children in critical care.

The FedExFamilyHouse will also be built to provide housing for families of patients who travel long distances for extended stays at Le Bonheur. The existing hospital will be remodeled to provide space for education, research and parking. For more information about the new hospital, visit www.lebonheur.org/growingup.





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Le Bonheur caregivers also reach more than 150,000 children each year through the Healthy Schools program,



which touches 190 schools in Memphis and West Tennessee.

There, case managers target students and families who need edu-

cation and support for diabetes and asthma – two growing pediatric health issues.

In addition, students and school staff members in West Tennessee schools are walking each day as part of their efforts to decrease obesity. The Fit Schools program is aimed at promoting good nutrition and increased physical activity among students, parents and staff at the schools.

Our Mobile Health Units also visit schools to teach students about healthy lifestyles and support local primary-care physicians by providing services at schools, health fairs and civic events.



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