In celebration of 100 years of pediatric care in Augusta, MCGHealth Children’s Medical Center is inviting everyone in the community to become a 100-year-old kid.

Be A 100-Year-Old kid!
The neonatal intensive care unit (NICU) is in many ways the busiest and most important “heartbeat” of any hospital, and that’s certainly true here at the children’s hospital.

It’s where babies like Jonathan Grainger (see feature article), often premature or experiencing problems within the first few days of life, are admitted so they can receive around-the-clock care from a team of specialists working hand-in-hand with superb neonatalogists. The NICU is a buzzing environment of focused nurses and doctors, advanced technologies, beeping monitors and, of course, anxious parents.

Our 36-bed NICU serves patients all over Georgia, and from neighboring states. We’re proud to be one of only two centers in Georgia that provides extracorporeal membrane oxygenation (ECMO), and the only center that provides care for both mother and baby under one roof. Our ECMO program at MCGHealth Children’s Medical Center was recently honored for the third time with an Award for Excellence in Life Support from Extracorporeal Life Support Organization.

Our neonatologists are passionate educators and investigators moving their field forward (see CHDI News article). We’re extremely proud of the leadership and exceptional care provided to our smallest citizens by all of our doctors, nurses and staff. They make the NICU another vital resource for the children and families of our community, a heartbeat of hope for Georgia and beyond.

Sincerely,

Bernard L. Maria, MD/MBA
Pediatrician-in-Chief,
MCGHealth Children’s Medical Center
Ellington Charles Hases Professor
Chairman, Department of Pediatrics
Medical College of Georgia

The Accreditation Council for Graduate Medical Education (ACGME) released their proposed standards for resident duty hours on June 23 with a projected implementation date of July 1, 2011. These standards provide benchmarks in education, clinical responsibilities, teamwork, professionalism, transitions in patient care, resident fatigue and work hours. One issue of work hours is the amount of consecutive hours a first-year physician (intern) can work. Currently, an intern can work 30 hours, consecutively. Under the new standards, interns are only able to work 16 hours per day, with at least eight hours off between shifts. Studies support the change and show that problem-solving skills decrease and mental fatigue increases after a 16-hour time period.

At MCGHealth Children’s Medical Center, we support these duty-hour standards and are already implementing them into our curriculum. We are moving toward a system in which no physician-in-training, whether it’s an intern or upper level resident, is working longer than 16 hours at any given time. Most interns will work 13-hour shifts, with a maximum weekly duty time of 80 hours. We believe these transitions in work hours will provide safer care for our patients and enhance resident education. It will provide our patients with more alert and rested physicians, in conjunction with an improved 24-hour care experience.

We believe our new schedules, along with increased emphasis in clinical responsibilities, professionalism and teamwork will be a shining example of great patient care in a time of change and transition. We look forward to working with you to improve the care of Georgia’s youngest patients.

Joshua Smith, MD
Co-Chief Resident

Nancy Wood, MD
Co-Chief Resident
From Behind the Desk

Eda J. LeShan, a psychologist and family counselor said that “a new baby is like the beginning of all things — wonder, hope, a dream of possibilities.” At MCGHealth Children’s Medical Center our Neonatal Intensive Care Unit (NICU) provides healing and Patient Family Centered Care that allows many parents of premature, or sick infants, the ability to wonder, hope and dream for their child’s future.

Our NICU has attained the highest level of distinction in the care and treatment of critically ill infants. This distinction provides parents with a level of comfort and security needed when concerned about the health of a new baby. The NICU is part of the Regional Perinatal Center for the Central Savannah River Area and one of only a handful in the state. Our neonatal air and ground transport team regularly brings in infants from other hospitals in the region. With the largest team of neonatologists, nurses and staff in the area, we are able to provide these infants with a higher level of care and expertise.

Taking care of sick infants in the NICU is not new to these professionals. Our NICU has more than 25 years experience in providing heart and lung technology to infants through our extracorporeal membrane oxygenation (ECMO) program. In addition, the NICU recently received the Excellence in Life Support Award. This award acknowledges extraordinary achievement in patient care excellence, as well as excellence in training and education.

Continue to wonder, hope and dream of possibilities for your baby and be assured that we are here prior to, during and after your baby’s birth with a team of qualified professionals who know children and infants, and provide exceptional care.

To learn more about the NICU, visit our health services section at mcghealth.org/kids.

Jim Mumford, MHSA, FACHE
Administrative Director of Pediatrics Ambulatory and Network Services
MCGHealth Children’s Medical Center
Darnell and John Grainger tell the story of their toddler, Jonathan, and his unbelievable recovery.

“You name it, it was wrong with him,” says Darnell about her then-newborn. “Any major organ or function in his body, there was something wrong with it.”

Born seven weeks early, Jonathan required extracorporeal membrane oxygenation (ECMO), a technique that provides cardiac and respiratory oxygen support. As one of only two hospitals in the state that offer ECMO, MCGHealth Children’s Medical Center treats 10 to 15 such patients each year.

“His internal organs weren’t fully developed and his heart was oversized,” recalls Darnell.

Jonathan’s doctors at the children’s hospital induced a coma and administered ECMO for eight days.

“When he was three days old, they called a conference with us,” recalls John. “They told us the treatment steps they would go through. They said if he did live, he might have brain damage. They couldn’t predict, and he might not live long. They projected he might live seven days.”

The couple prayed. They prayed a lot. “I guess they didn’t want us to have false hope,” says Darnell. “We firmly believed in God’s will for Jonathan, and we were trying to accept it, but we still kept praying.”

Holding hands in prayer over their struggling infant the next day, the couple looked up to see neonatologist, Dr. Chantrapa Bunyapen.

“Dr. Bunyapen appeared like an angel,” John says. “She looked at all of us and said, He’ll be alright, give me 30 days and he’ll be going home.”

“ECMO is a last resort to help a newborn’s heart and lungs recover, usually from pulmonary aspiration, pneumonia or surgery,” explains Dr. Bunyapen. “Jonathan was a good-sized baby and was making progress.”

From then on, the Graingers took it day-by-day. The neonatal intensive care unit (NICU) staff grew to know them well, anticipating their visits even late in the evening.

“We’d go to the NICU in the middle of the night because I couldn’t sleep,” says Darnell. “They’d make sure nobody gave him his bath so I could, and they always told us exactly what happened with him during the time we weren’t there. They really boosted us up, gave us comfort.”

“They monitored him 24 hours a day, he was never unattended, they never let his crib out of sight,” says John. “They were so on it, so on point with everything.

“It was like he was the only baby they had to care for, even though they had a whole ward full of them,” he says.
“They really brought him to life,” adds Darnell. The NICU staff became like extended family, even celebrating Darnell’s birthday with her.

Jonathan turned the corner, improving by leaps and bounds. Soon the family graduated to the Family Support Program, a transition program that allowed them to care for Jonathan on their own, yet under the watchful eye of hospital staff.

True to Dr. Bunyapen’s prediction, Jonathan went home at 30 days old.

More than three years later, his parents are still surprised when they see NICU staff who remember them.

“A lot of people crossed our paths, blessed us,” says Darnell.

Jonathan is now a bright three-year-old who’s mesmerized by letters and numbers, Thomas the Train and TV. He has his own computer and is learning to swim.

“Telling you about him now — now that’s a whole new story,” laughs his dad as the three-year-old chatters away, opens the fridge door and tries to help himself to some milk.

For more information about ECMO, visit mcghealth.org/kids. Find Pediatric Heart Services after clicking on Health Services.
Health First
Breast Milk is Baby’s Best Nutrition

In 1897, Dr. L. Emmett Holt wrote, “Nutrition in its broadest sense is the most important branch of pediatrics.” Because breastfeeding rates had declined during the 19th century, there was great interest in “formulating” substitute milks for infants at the turn of the 20th century. A century later, however, we know that no infant formula provides the benefits of breast milk.

August is National Breastfeeding Awareness month, so here is a list of the benefits of breastfeeding that every parent should know. Breast milk:

1. Provides complete nutrition for infants, including immune factors that prevent infection.
2. Promotes bonding between mother and infant.
3. Decreases the risk of infectious diseases in the first year (respiratory, gastrointestinal and ear infections).
4. Enhances brain and eye development and may lead to higher intelligence quotient (IQ) scores.
5. Decreases the risk of obesity, food allergies, eczema, asthma, Sudden Infant Death Syndrome (SIDS), leukemia, lymphoma, Hodgkins disease, and diabetes mellitus.
6. Decreases the risk of maternal ovarian and breast cancer, anemia and osteoporosis. It helps the mother return to her pre-pregnancy weight sooner.
7. Is free, environmentally friendly and there is no expense of manufacturing, packaging and transporting baby formula.
8. Results in fewer doctor visits and fewer days lost from work.
9. Gives medical and psychological benefits to mother and baby. When a mother breastfeeds her baby, both she and the baby live healthier lives.

A pregnant woman should read about the benefits and techniques of breastfeeding and talk with her health care provider during her pregnancy. There are very few medical reasons that prevent or interfere with breastfeeding.

For more information on breastfeeding, visit our online health encyclopedia at mcghealth.org/kids.

Alice Little Caldwell, MD
Assistant Professor of Pediatrics
News from the Child Health Discovery Institute

Researchers Create Animal Model to Help Prevent/Treat Necrotizing Enterocolitis Disease

A team of scientists is creating a model that promises to be the perfect “testing opportunity” for a disease that affects premature babies.

Necrotizing enterocolitis (NEC) is an intestinal disease that occurs almost exclusively in newborns. About 12 percent of very low-birthweight infants develop NEC, and about 30 percent of those children die from the disease.

“It’s the most important clinical problem in neonatology,” explains lead Child Health Discovery Institute (CHDI) investigator Dr. Vadivel Ganapathy. “Despite advances, the rate has remained relatively constant over the past several decades.”

Critical risk factors are prematurity and formula-feeding (because preemies are too small to suckle).

“Breast milk contains large quantities of butyrate, which maintains intestinal integrity and function,” he says. “In full-term babies, the intestinal tract is mature, and bacterial colonization is harmless even in the absence of breast milk. But in the undeveloped intestinal tract of a premature baby, without the protective butyrate from breast milk, bacteria can cause inflammation and hence NEC.”

“There is not an established model of NEC,” explains Dr. Jatinder Bhatia, co-investigator and chief of neonatology. “Our study aims to establish a unique model in order to test various hypotheses which will eventually be brought to the bedside as prevention and treatment strategies.”

The CHDI team is replicating NEC in humans by manipulating and crossing two models; one in which preterm labor occurs due to elevated levels of homocysteine (similar to folic acid deficiency in human mothers), and one in which the intestinal tract doesn’t respond to the protective properties of breast milk.

If the team is successful, treatment and prevention studies for NEC could begin within a year.
Historical Reflections: Celebrating 100 Years of Caring for Kids

District Nurses Improve Public Health

The Wilhenford Children’s Hospital often had to keep patients longer than necessary, because many parents did not know how to care for them at home. “These babies are often brought back in desperate condition owing to ignorance,” read a report on this issue in the Augusta Chronicle.

The Children’s Hospital Association hired a district nurse to visit homes and teach parents proper hygiene and home care. In addition, nurses from Wilhenford taught local women first aid.

Medical director Dr. William Mulherin held free infant care classes. In his talks, Dr. Mulherin stressed the importance of keeping babies cool in summer through frequent bathing and sponging. “Never leave the milk standing at the front door. Put it on ice at once. Give children buttermilk between the ages of one and two years,” he advised.

Today, MCGHealth Children’s Medical Center continues that public health legacy through nurse educators, the Safe Kids program, special events, like the October Health Expo and other efforts designed to create a more informed community.