



# INSIDE PEDIATRICS

## JOINED AT THE HIP

The sky bridges connecting the University of Alabama at Birmingham (UAB) Women & Infants Center and Children's of Alabama provide more than a means of travel from point A to B. For the UAB/Children's Division of Neonatology, the sky bridges not only facilitate seamless clinical care, but also seamless research collaborations.

"It's a tremendous benefit," said Trent Tipple, M.D., UAB associate professor of pediatrics, director of neonatology faculty development and co-director of the Neonatal-Perinatal Medicine Fellowship Training Program. "The integration is one that just makes sense. It eliminates a lot of barriers that can make research frustrating and allows one to focus on designing the best study with the necessary personnel; to really think about how to execute a study rather than whether a study can be done."

"It's one of the unique features here. UAB's Regional Neonatal Intensive Care Unit and Children's NICU are literally joined at the hip," said Namasivayam Ambalavanan, M.D., UAB professor of pediatrics, neonatology division co-director, director of the Translational Research in Normal & Disordered Development (TReNDD) Program at UAB and principal investigator of the UAB Research Center. "This makes clinical care a lot better and research also improves."

As a founding member of the Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD) Neonatal Research Network (NRN), part of the National Institutes of Health (NIH), UAB/Children's is consistently one of the top centers in developing, leading, enrolling and analyzing randomized controlled trials and clinical studies. For example, neonatology division members have led three major innovative NRN studies – the SAVE Factorial Trial, the Cytokine Study and the SUPPORT Factorial Trial. A fourth trial led by UAB/Children's neonatologists testing the effects of caffeine late in the neonatal course and at home to shorten hospitalization and decrease apparent life-threatening events began enrollment this year.

In its more than 30 years of existence, the NRN has defined the standards of multi-institutional collaborative research resulting in increased survival and decreased morbidity rates of extremely low birth weight infants and other critically ill infants in the U.S. Wally Carlo, M.D., Edwin M. Dixon Endowed Chair in Neonatology and neonatology division co-director, and Ambalavanan are principal investigators for the NRN and have led nationwide studies on ventilator care, antenatal steroids, chronic lung disease and neurodevelopment outcomes. A study in the NRN published in the *New England Journal of Medicine* reported that neonatal mortality has been decreased over the last 10 years, including decreases in almost all specific causes of neonatal mortality, because of improvements in care implemented in the NRN centers.

In addition, UAB/Children's is the only facility in the U.S. to be awarded grants in all three perinatal networks from the NICHD – the NRN, the Maternal-Fetal Medicine Units Network and the Global Network for Women's and Children's Health Research. For more than two decades, these networks have awarded UAB/Children's more than \$20 million to fund research for pregnant women and babies. The most recent grants, awarded in 2016, will bring a total \$1.1 million per year through 2021.

Under the Global Network, UAB/Children's researchers have led seminal investigations of resuscitation and essential newborn care in 100 communities in six countries, which included almost 200,000 infants. These trials established the effectiveness of these interventions in reducing stillbirths and neonatal mortality, and led to worldwide implementation of training, including the globally-implemented Helping Babies Breathe Program and the Essential Care for Every Baby Program launched in 2014. The programs have been introduced in more than 75 countries to save babies' lives at birth, with the potential to reduce infant deaths soon after birth by 1 million.

"It should save a million lives every single year at almost no cost," Carlo said of the programs. "It will save the most lives in the world."

For more information, visit [www.childrensal.org/neonatology](http://www.childrensal.org/neonatology).



Both the UAB RNICU and Children's of Alabama NICU encourage skin-to-skin care. It's considered best practice for babies to go skin-to-skin with their mothers after birth because it helps stabilize the baby's heart rate, glucose level, respiration and temperature.