A Legacy of Giving, a Legacy of Knowledge

Parents strive to teach their children about giving to others. For children participating in research, this lesson can come very early in life. "I want her to be a generous, giving person," Lee says of his daughter Aspen, "One day I can tell her how she's helped others from the time she was born." The study his family is participating in is the Beginnings Study at the Arkansas Children's Nutrition Center housed at ACHRI. The ACNC's Beginnings Study is a 7-year longitudinal study of breast-fed, dairy formula-fed and soy-fed infants that began recruiting study subjects in 2001. The Beginnings Study seeks to determine the effects of diet and nutrition on brain development and function and on body growth and composition of infants, toddlers, and school-aged children.

Wired for research: Aspen is ready for the brain function and development testing component of the Beginnings studies at the Arkansas Children's Nutrition Center.

Aspen began her visits to the ACNC 4 weeks after her birth. She then went to the center monthly for the next 5 months and then once every 3 months until her first birthday. Now, Aspen goes to the ACNC for testing annually. She is one of what will be 600 children in the study. "It is the largest study of this type being conducted," says Dr. Thomas Badger, Director of the ACNC since its establishment by the Agricultural Research Service of the US Department of Agriculture in 1995. The ACNC is the largest federally funded research center in the University of Arkansas system. It is one of only six centers in the USDA's National Human Nutrition Research Centers Program and only the second to focus on pediatric nutrition. "We initiated this study because it is important to determine the long-term health consequences of infant diets," says Dr. Badger. "We have a team of experts—faculty and technicians—here in Arkansas," he explains, "and they're working on a highly sophisticated study to learn how diet and nutritional status influence child development and health later in life."

Dr. Terry Pivik oversees the Beginnings studies on brain function and development, an important component of which is the assessment of the brain electrical activity and related behavior of the children in the study. "The dynamics of change in the first year are significant," says Dr. Pivik whose contributions will aid in assessing dietary and nutritional impacts on learning and behavior. Another skillful faculty researcher is Dr. Janet Gilchrist. During the children's visits to the ACNC, she evaluates the effects of diet on body growth and composition on children in the study. "If we see milestones are not met, we discuss it with pediatricians," she says. The researchers share test results with parents at each visit. Over time, Dr. Pivik, Dr. Gilchrist, and their colleagues will learn more about the dietary impact on learning and behavior, leading to recommendations on diet and nutrition for children. Together with parallel studies in pediatric animal models, the Beginnings Study is providing essential information that can be used to help formulate policy decisions on the potential health benefits and risks of milk-based and soy-based formula.

"This study doesn't impact Aspen today, but the decisions and recommendations that come out of this study will benefit her children, my grandchildren," says Lee. "It's a legacy the children in the Beginnings Study will leave for happier and healthier kids in the future," he points out. The

ACNC also is establishing a legacy of knowledge built by dedicated researchers achieving their mission to conduct critical research on diet and dietary factors to optimize the nutrition and health of infants and young children through adolescence. This knowledge will also help formulate plans to maximize their health as adults. The Beginnings Study still has openings for infants fed soy-formula, and parents should call (501) 364-3309 or (866) 423-1311 for information regarding criteria and benefits of participation.

Established in 1989, Arkansas Children's Hospital Research Institute provides an on-site research environment for faculty of the University of Arkansas for Medical Sciences working on the Arkansas Children's Hospital campus. Over 120 pediatric researchers with expertise and experience that span the breadth of medical disciplines comprise ACHRI's roster of investigators who work to fulfill its mission to improve children's health, development, and well-being through high quality research. For more information, visit http://achri.archildrens.org.