Nemours Children's Health Neurologist Elizabeth Wright-Jin Receives Prestigious Award to Advance Research on Neonatal Brain Injuries

Elizabeth Wright-Jin, MD, PhD

WILMINGTON, Delaware (April 29, 2026)— Elizabeth Wright-Jin, MD, PhD, has received a Career Development Award from the American Academy of Neurology to further her research on hypoxic ischemic encephalopathy (HIE), the most common brain injury in babies.

Dr. Wright-Jin, a neonatal neurologist and an early-stage investigator at Nemours Children's Health, Delaware Valley, has developed mouse models that have provided valuable insights into HIE. This is a condition that occurs when the brain does not get enough blood or oxygen, often due to a difficult birth. Dr. Wright-Jin will use her Career Development Award, which totals $450,000 over three years, to examine the role the mother's immune cells may play in helping the baby's brain heal from HIE.

"We know that the mom's immune system has been exposed to many pathogens throughout her lifetime. That experience of her immune system allows her cells to react to subsequent 'threats' in more sophisticated ways than the newborn immune system, which is still immature," Dr. Wright-Jin explained. "We hope that our research will identify mechanisms for treating damaging inflammation after brain injury, to ultimately reduce the extent of harm to brain cells in the newborns."

Another crucial question is whether the maternal immune cells are transferred via umbilical cord blood or reside in a "reservoir" in the baby—perhaps in the bone marrow, the spleen, or circulating in blood.

Dr. Wright-Jin also aims to characterize the mother's immune cells. She theorizes that there may be types of immune cells that are more "beneficial" to the healing process in infants and some that are more "detrimental." Identifying these types may allow researchers to develop a tailored treatment approach to newborn brain injuries using a mother's own cells, she explained.

"I suspect that we are going to learn that mom-baby interactions are dynamic and complex, but likely influential to the outcome of HIE," she said.

HIE occurs in 1 to 3 out of every 1,000 births in the United States, and can result in developmental delays, cerebral palsy, epilepsy, or autism, and may lead to early death. The risk of HIE is higher if the mother has experienced an infection of the fetal membranes, or if the baby has experienced a perinatal event, such as a placental abruption or other medical emergency.

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About Nemours Children's Health

Nemours Children's Health is one of the nation's largest multistate pediatric health systems, which includes two freestanding children's hospitals and a network of more than 70 primary and specialty care practices. Nemours Children's seeks to transform the health of children by adopting a holistic health model that utilizes innovative, safe, and high-quality care, while also addressing children's needs well beyond medicine. In producing the highly acclaimed, award-winning pediatric medicine podcast Well Beyond Medicine, Nemours underscores that commitment by featuring the people, programs and partnerships addressing whole child health. Nemours Children's also powers the world's most-visited website with health information written for parents, kids and teens, Nemours KidsHealth.org.

The Nemours Foundation, established through the legacy and philanthropy of Alfred I. duPont, provides pediatric clinical care, research, education, advocacy, and prevention programs to the children, families and communities it serves. For more information, visit Nemours.org.

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