Pioneering Study Aims to Prevent Hydrocephalus in Children

The study evaluates the safety of a new treatment combining melatonin and erythropoietin (EPO) to prevent brain bleeds from progressing to hydrocephalus.

TAMPA, FL, UNITED STATES, July 24, 2024 /EINPresswire.com/ -- Hydrocephalus Association funded researchers, Dr. Shenandoah (Dody) Robinson, professor of neurosurgery at Johns Hopkins Children's Center, and neuroscientist Dr. Lauren Jantzie, associate professor of pediatrics, neurology, and neurosurgery, at Johns Hopkins University, have been collaborating for over a decade on research to better understand the disease processes that cause brain damage in infants.

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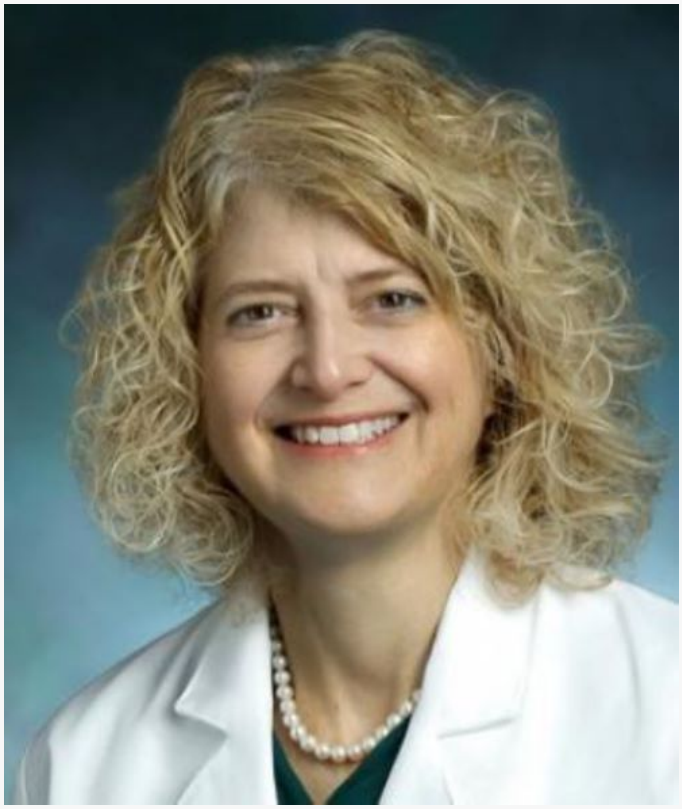
>
> *Dr. Shenandoah Robinson*

Their pioneering study tests the safety of a new treatment combining melatonin and erythropoietin (EPO), hormones found to prevent the progression of brain bleeds to hydrocephalus in preclinical models. The study aims to harness the brain's natural ability to heal itself to prevent hydrocephalus, potentially eliminating the need for shunts and associated surgeries.

Dr. Jantzie will present their research at the HA CONNECT National Conference on Hydrocephalus in Tampa, FL, at 2:00 pm on Friday, July 26, at the Tampa Marriott Water Street. The conference, held in collaboration with presenting sponsors Tampa General Hospital and USF Health, will be a significant opportunity for medical professionals, researchers, and patients to learn more about their innovative work and its potential impact on the prevention and treatment of hydrocephalus.

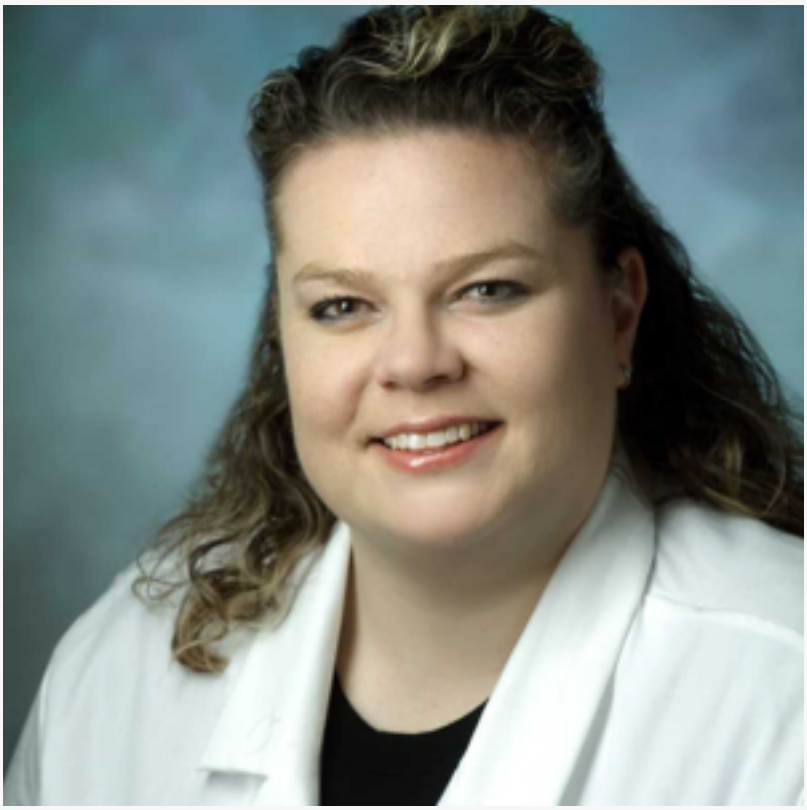
Hydrocephalus affects 1 in every 770 babies and is the leading cause of brain surgery in children. Currently, the only treatment is to surgically implant a shunt to reroute cerebrospinal fluid from the brain, a method that often leads to lifelong complications such as shunt malfunctions and infections.

Their innovative research could revolutionize treatment for hydrocephalus, particularly in premature infants at high risk due to brain bleeds. The tiniest, most premature babies, especially those born before 32 weeks, are at higher risk because of these brain bleeds, which can cause lasting changes in the brain.



“This could be a true game-changer,” says Dr. Robinson, highlighting that while current reliance on shunts is lifesaving, it also carries significant risks and anxieties for patients and their families. "Research suggests that natural repair mechanisms could help fix and prevent hydrocephalus."

Clinical trials will launch once the study is complete, marking the potential advent of the first pharmacological treatment for hydrocephalus in infants.



Their research, additionally supported by the Rudi Schulte Research Institute, investigates treating hydrocephalus with a combination of melatonin and roxadustat, an oral anti-anemia drug. This approach aims to repair malfunctioning brain and immune cells, potentially addressing other brain injury-related issues such as pain, abnormal gait, and cognitive deficits.

Dr. Robinson and Dr. Jantzie are hopeful that their collaborative efforts will lead to an effective, non-surgical treatment for hydrocephalus, fundamentally changing the prognosis of those impacted by hydrocephalus.

ABOUT THE HYDROCEPHALUS ASSOCIATION

Founded in 1983 by parents of children with hydrocephalus, the Hydrocephalus Association has grown to become the nation’s largest and most widely respected organization dedicated to hydrocephalus. The Hydrocephalus Association began funding research in 2009. Since then, HA has committed over $15.5 million to research, making it the largest nonprofit, non-governmental funder of hydrocephalus research in the U.S. For more information, visit www.hydroassoc.org or call (888) 598-3789.

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