



NovaSignal Corp. and Nationwide Children's Hospital Partner to Improve the Lives of Children with Sickle Cell Disease

LOS ANGELES, CA (Sep. 23, 2020) – Dr. Nicole O'Brien, a critical care physician and director of the Global Health Certificate Program at Nationwide Children's, has spent the last six years working to understand and address acute neurologic illness and injury in children. Her years of research took her to sub-Saharan Africa, where up to 3% of births, or over 300,000 babies, are born with sickle cell disease each year. NovaSignal, a medical technology company whose mission is to save lives by unlocking the hidden power of blood flow data, has donated eight of its patented Lucid TCD systems to Nationwide Children's Hospital in support of Dr. O'Brien's work in Africa.

Sickle cell disease is a genetic condition that affects the shape of red blood cells. One of the major causes of morbidity and mortality of patients with sickle cell is a stroke. Due to an abnormal presence of hemoglobin, the red blood cells become rigid and sickle shaped, making it harder for them to move through blood vessels and get oxygen to the cells and tissues that need it. The cells' rigid nature causes clumping along arteries, damaging the walls and exposing tissue to more sickle cells, which further narrows the artery. It is this narrowing that can cause strokes in children and adults. For the many children living with sickle cell disease, routine screening using transcranial Doppler (TCD) ultrasound coupled with regular blood transfusion therapy can significantly decrease their risk of stroke.

Thanks to the generous donation from NovaSignal, Nationwide Children's work in Africa will benefit from better insight into sickle cell disease and the therapies needed to treat the many children diagnosed with it. The newly released NovaSignal Lucid TCD systems assess blood flow velocity in the main cerebral arteries to monitor for neurological, cardiac, and pulmonary disorders. NovaSignal also produces the first and only fully autonomous cerebral ultrasound that incorporates robotics and artificial intelligence to automatically collect cerebral blood flow data and inform the diagnosis. The use of these systems, especially in early interventions, will provide doctors and medical teams with the critical data needed to treat their young sickle cell patients and avoid stroke.

"My doctoral work in Malawi is what inspired me to start NovaSignal and having this opportunity to give back is a very special moment. We will continue to support Dr. O'Brien and Dr. Taylor in their important work of improving the lives of children throughout Africa and the rest of the world," said Robert Hamilton, Founder and Chief Scientific Officer, NovaSignal.

"Thanks to this donation and ongoing collaboration, we'll be able to continue our lifesaving work and research battling devastating neurological diseases in African children. This really is a game changer in terms of the scope of work we can accomplish, and we are so grateful," said Dr. O'Brien.

"We are fortunate to partner with Nationwide Children's Hospital in support of their critical work," said Diane Bryant, Chairman and CEO, NovaSignal. NovaSignal is committed to developing technology to diagnose life-threatening illnesses. There's no more fulfilling opportunity than to support the health of the children of Africa suffering from sickle cell and cerebral malaria."

About Nationwide Children's Hospital

Named to the Top 10 Honor Roll on *U.S. News & World Report's* 2020-21 list of "Best Children's Hospitals," Nationwide Children's Hospital is one of America's largest not-for-profit freestanding pediatric health care systems providing wellness, preventive, diagnostic, treatment and rehabilitative care for infants, children and adolescents, as well as adult patients with congenital disease. Nationwide Children's has a staff of more than 13,000 providing state-of-the-art pediatric care during more than 1.6 million patient visits annually. As home to the Department of Pediatrics of The Ohio State University College of Medicine, Nationwide Children's physicians train the next generation of pediatricians and pediatric specialists. The Abigail Wexner Research Institute at Nationwide Children's Hospital is one of the Top 10 National Institutes of Health-funded freestanding pediatric research facilities. More information is available at NationwideChildrens.org.

About NovaSignal

Founded in 2013, NovaSignal Corp. is a medical technology company whose mission is to save lives by unlocking the hidden power of blood flow data. The company's FDA-cleared NovaGuide Intelligent Ultrasound combines non-invasive ultrasound, robotics, and artificial intelligence to assess real-time cerebral blood flow. Through the use of cloud computing and data analytics, NovaSignal supports physicians in their clinical decision making to help improve patient outcomes.

About the Nationwide Children's Hospital Foundation

In 1892, a group of citizens held a sale to raise money for the care of sick, impoverished children. That effort led to the opening of Nationwide Children's Hospital in 1894. For more than a century, we have existed to care for every child, for every reason. The Foundation is the fundraising arm of Nationwide Children's. Our job – with your help – is to ensure much needed funds are available for innovative research, emerging trends in pediatric health, and to react to our ever changing world. Philanthropy ensures that we can dream big. Learn more at NationwideChildrens.org/giving.

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