



For Immediate Release

Contact: Sue Goin  
[sue.goin@sapphire-com.com](mailto:sue.goin@sapphire-com.com)  
317.402.8690

**Study Shows First-Ever Successful Deep-Brain Implant of Computer Chip in Living Animal**  
*NICO's patented BrainPath advancing science & enabling new possibilities in red-hot neuro implant space*

INDIANAPOLIS, IN (October 31, 2023) – A first study demonstrating successful deep-brain placement of a brain computer interface microchip into a living animal with no apparent neurological effects is now published from Julian E. Bailes, MD, a recognized leader in the field of neurosurgery and co-director of the NorthShore University HealthSystem. Dr. Bailes' work has addressed the long-standing challenge of safely accessing subcortical regions of the brain for the purpose of microchip implantation without disrupting surrounding tissue.

"This study had two intentions," Dr. Bailes explained. "The first to describe the methodology for the successful implantation of an integrated circuit (IC) into the deep subcortical brain space, and secondly, to investigate how the mammalian brain would accept or reject the IC. We wanted to learn about potential damage to the neural architecture, whether infection would arise, and if the animal could survive with minimal or no functional change after subcortical placement of the IC."

The proof-of-concept study was published in Brain-Computer Interfaces in September and used a modified and miniaturized [NICO BrainPath](#), the world's first navigated trans-sulcal access technology widely used in Minimally Invasive Parafascicular Surgery (MIPS) for access in the removal of brain tumors and evacuation of hemorrhagic stroke.

The use of brain-computer interface (BCI) technologies is a rapidly developing area of interest in neurosurgery and medicine as a whole. BCI technologies thus far are placed at or just below the cortical surface; however, the majority of the brain's functional architecture is in the brain's interior. NICO technologies remove the barrier of deep-brain access by providing a safe pathway for delivery of a BCI into those subcortical regions, leading to possible treatments for many neurological disorders.

"It's such an exciting time in neurosurgery and the neurosciences," said Jim Pearson, president and CEO of NICO. "We are successfully leading the industry with our innovations that enable new opportunities not just for improved patient care and better outcomes, but also for merging the latest in minimally invasive technologies with the exploding area of artificial intelligence and a new generation of therapeutic and diagnostic technologies."

Pearson added that it's also an attractive emerging market for venture capitalist funding. According to a recent Wall Street Journal article, VCs are funding start-ups with medical device alternatives to medications for common but difficult to treat brain diseases. In the first half of this year, the article reports that U.S. and European neurological medical device makers garnered over \$760 million in capital – the highest total among the 12 medical device markets analyzed and higher than the cardiovascular and orthopedic device markets.

[NICO Corporation](#) has led the MIS neurosurgical field for over a decade with its patented technologies that use the natural folds of the brain to reach and remove subcortical abnormalities. It is the sponsor of

ENRICH, the [world's first positive surgical trial for hemorrhagic stroke](#) in which BrainPath and the [NICO Myriad](#) were used to achieve statistically significant and clinically meaningful improvements with early surgical intervention of spontaneous ICH versus medical management.

NICO advocates for and supports development of scientific evidence promoting safe and novel approaches to brain disorders and expanding clinical research efforts in pursuit of improved patient outcomes using MIPS. Its technologies have been featured in more than [180 peer-reviewed published papers](#) with over 550 unique authors from major academic centers.

Learn about NICO technologies at [NICOneuro.com](#); follow us on [LinkedIn](#) and [Twitter](#), view surgical and patient videos on [YouTube](#).

###