

For Immediate Release

NICO Awards \$40,000 Grant to London's Kings College Hospital

Study Will Compare Differences in Fiber Tract Recovery & Functional Outcomes Between MIPS with BrainPath and Conventional Surgical Approaches

INDIANAPOLIS, IN (October 12, 2023) – Ranjeev Bhangoo, MD, and Jose Lavador, MD, neurosurgeons from Kings College Hospital in London, have received a \$40,000 Investigator Initiated Study (IIS) grant from <u>NICO</u> <u>Corporation</u> to assess differences in the microstructural improvement of brain fiber tracts between Minimally Invasive Parafascicular Surgery (MIPS) with NICO's BrainPath and a conventional surgical approach after deepseated tumor removal. The study aims to correlate these differences with associated clinical repercussions and patient functional outcomes that ultimately impact treatment decisions.

Study investigators believe this kind of analysis can provide crucial information to current research in neuro-oncology. Dr. Bhangoo is Clinical Director of Neuroscience and Dr. Lavador a Consultant Neurosurgeon at King's College Hospital. They are seeking a better understanding of the impact NICO technologies have on patient recovery. Existing published data suggests that NICO technologies cause less damage to brain fiber tracts when accessing tumors in deep subcortical regions of the brain.

The MIPS CONNECT study will use high-quality tractography to assess the impact of MIPS in the subcortical connectome, both in terms of anatomical and microstructural preservation after tumor resection, as well as potential microstructural improvement at follow-up. The study includes 20 patients undergoing brain surgery using MIPS and 10 using a conventional approach that includes surgical navigation across or through critical brain fiber tracts.

"We believe this study may provide evidence on white matter preservation differences between navigated transgyral and transsulcal (MIPS) approaches and the impact for potential regeneration of these tracts during follow-up," said Drs. Bhangoo and Lavador. "We believe MIPS using NICO technologies will improve patient outcomes over other surgical approaches, and we expect our study data to indicate a direct correlation of less disruption to white matter to these improvements."

The MIPS CONNECT study may also provide information associating the potential of fiber tract recovery with distance to the surgical cavity. Bhangoo and Lavador say it may also lead to the development of imaging biomarkers, with potential for integration in risk stratification scores and surrogate markers for functional outcomes.

"We already know through our experience with MIPS and BrainPath that the way you access the subcortical surgical space matters in the treatment of deep-seated lesions. Accessing these lesions in highly eloquent areas of the brain may leave patients susceptible to transitory neurological deficits," said Jim Pearson, president and CEO of NICO. "Further understanding the potential for recovery due to tract

preservation is crucial for treatment decisions, and we are proud to support research of this kind that ultimately helps patients."

The NICO Investigator Initiated Study (IIS) grant program is dedicated to supporting novel pre-clinical and clinical research efforts related to improved patient and economic outcomes using NICO technologies. The program supports physicians and researchers across a wide range of neuro-specialties committed to building clinical and scientific data to achieve better outcomes for patients and healthcare providers, as well as expanding the body of evidence for vascular, tumor and oncology clinical practices. Learn more about the IIS program areas of interest and how to apply for a grant.

NICO is a pioneer and leader in minimally invasive neurosurgery. It 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 Minimally Invasive Parafascicular Surgery (MIPS). All projects supported by the IIS grant program are conducted by the applicant(s) and their respective affiliate institution(s); NICO is neither involved in collecting information, conducting research, nor in the publication of any study project findings.

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