Neurosurgical Research: Innovation for Better Care

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Neurosurgery has advanced through the integration of scientific discovery, technological innovation, and clinical practice. From operative microscopy and stereotactic techniques to molecular diagnostics, advanced neuroimaging, and image-guided surgery, these advances have reshaped how neurosurgical diseases are understood and treated. Yet translating discoveries and promising technologies into reproducible improvements in patient care remains a central challenge. To help address this gap, we are pleased to launch *Neurosurgical Research*, an international, peer-reviewed, open-access journal sponsored by the Beijing Neurosurgical Institute and Higher Education Press.

The journal is dedicated to connecting fundamental neuroscience, technological development, and clinical neurosurgery, with patient benefit as its guiding principle. It will publish high-quality basic, translational, and clinical studies addressing diseases of the brain, spinal cord, peripheral nerves, and related structures. Its scope encompasses neuro-oncology, cerebrovascular and endovascular neurosurgery, functional and stereotactic neurosurgery, neurotrauma, neurocritical care, spine and peripheral nerve surgery, pediatric neurosurgery, skull-base surgery, and translational neuroscience. Across these fields, we seek research that advances understanding and informs better clinical decisions.

Advances in molecular classification, artificial intelligence, robotics, brain–computer interfaces, and focused ultrasound illustrate the expanding possibilities for precision neurosurgery. Their value, however, should not be judged by technological novelty alone. Instead, it should be judged by their potential to improve diagnostic accuracy, treatment safety and disease-specific outcomes, as well as neurological and cognitive function, quality of life and access to care. Innovation also includes deeper insight into disease mechanisms, better patient selection, refinement of established treatments, and improved perioperative care and rehabilitation. *Neurosurgical Research* particularly welcomes new technologies with a credible pathway to clinical implementation, supported by evidence of safety, effectiveness, and feasibility in the settings where they are intended to be used. We welcome discovery-driven and early-stage studies, and encourage evaluation that is appropriate to

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their stage of development. For technologies proposed for clinical adoption, particular emphasis will be placed on external validation, prospective and multicenter evaluation where appropriate, transparent reporting, reproducible workflows, and clinically meaningful, durable outcomes.

Neurosurgical Research will emphasize methodological rigor, promote reproducibility, foster interdisciplinary collaboration, and encourage responsible innovation. We welcome original research, reviews, clinical trials, technical reports, consensus statements, guidelines, and perspectives. We will encourage adherence to appropriate reporting guidelines, prospective trial registration, and sharing of data and code where ethically and legally feasible, while safeguarding patient privacy. Well-designed studies reporting negative findings, as well as independent replication studies, will also be valued. By bringing together neurosurgeons, neuroscientists, neuropathologists, neuroradiologists, engineers, data scientists, and other professionals, the journal seeks to shorten the distance between scientific discovery and improved patient care.

We invite researchers and clinicians worldwide to contribute to this shared mission. We welcome evidence from diverse populations and health systems, including research that improves the affordability and accessibility of neurosurgical care. Together, we aim to shape a future of neurosurgery that is precise, innovative, ethical, and patient-centered, in which scientific and technological progress translates into tangible benefits for patients.

Author contributions

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Data availability statement

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Conflicts of interest

The authors are editors of *Neurosurgical Research*. T.J. serves as Editor-in-Chief; the other authors are members of the editorial team. The authors declare no other competing interests.