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Advances in Deep Brain Stimulation for Movement Disorders

Guest Editor:

Message from the Guest Editor

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Deadline for manuscript submissions: closed (15 October 2022)

Following decades of hibernation during the early levodopa era of Parkinson's disease, the development of implantable devices to chronically stimulate brain structures ignited a renaissance in the neurosurgical treatment of over 50 brain disorders using more than 30 targets. Most published literature is in relation to Parkinson's disease, tremor disorders, and dystonia. The attraction of this procedure is in both its capacity to probe pathological brain networks and deliver reversible and adjustable therapy. Even as the focus of research slightly shifts towards other neurological and psychiatric disorders. there remains a hopeful landscape of innovation to overcome the limitations and challenges of deep brain stimulation (DBS) in movement disorders. These innovations include advances in the control of DBS. e.g., closed loop adaptive systems, the pattern of DBS, e.g., variable frequency or burst stimulation paradigms, electrode and implantable pulse generator (IPG) design, a connectomic and personalised approach to DBS and the development of artificial intelligence and remote systems for DBS programming.



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Message from the Editor-in-Chief

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