

Editorial

Considering Ethics and Neuromodulation Together

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The last two decades have seen an exponential rise in the science and clinical application of neuromodulation and neurotechnology, paralleled by both growing societal interest and understanding of the role of the brain in complex behaviors, and the need for novel strategies for patients with treatment resistant disorders. These rapidly evolving scientific advances further highlight the need for ongoing cross-disciplinary neuroethics discussions and critiques.

In this special issue of the Canadian Journal of Neurological Sciences (CJNS), *Charting the Neuroethics Landscape for Neuromodulation in Canada and Beyond*, editors Lipsman, McDonald and Illes have assembled key commentary on the topic at hand that are not just hypothetical reflections on scenarios for the ethical future of neuromodulation, but real, timely and challenging questions and proposed solutions to them. Their approach is both practical and positive, and much in line with the actionable frameworks of neuroethics that warrant implementation.

The six contributions in this special issue span landscape covering professional relations and communication, access and resource concerns for patients and families living in areas distant from major medical centers, the special challenges presented by psychiatric and addiction disorders for neuromodulation, the use of placebo in clinical trials, and the law as a lever for socially responsible neurotechnology design. While Canada is the country of focus, the issues discussed have implications that are indeed global. At a time

when neuroscience collaboration is increasingly international, the chapters respect and do justice for a growing movement to innovate with a global lens.

This special issue is a seed for far greater considerations for ethics and neuromodulation beyond the topics specifically tackled here. It is also a broader invitation to international medical, scientific, and ethical communities to join PCNEC (www.pcneec.ca) and to create efforts like it. Together, the considered alignment of ethics and neuromodulation is a force whose potential is only beginning to be realized today.

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