

# Neural Prosthesis Live Webinar



## Closed-Loop Neuromodulation



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**Tuesday October 29 | 3:00 pm**

Reception immediately following  
Wolstein Research Building, Room 1413  
Case Western Reserve University

Live stream, interaction,  
and archives available at  
[FEScenterWebinar.org](http://FEScenterWebinar.org)

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Facing a growing number of patients with neurological disorders, there are only limited therapeutic pharmacological measures which provide only temporary and mild amelioration of the devastating symptoms of these disorders. The use of electrical stimulation of the brain is a treatment option for patients with severe treatment-resistant disorders. Current deep-brain stimulation (DBS) approaches are hindered by inadequate technology that is low-precision and bulky, power-inefficient, and of limited diagnostic utility. The seminar will discuss a high-precision implantable neurotechnology for closed-loop neuromodulation of functional networks of the human brain. Key features of the technology are: 1) sensing from a high number of channels, 2) sensing concurrent with stimulation for true closed-loop operation, and 3) real-time secure wireless data telemetry. The proposed neurotechnology could revolutionize brain therapies in efficacy, size and cost of medical implants.