

Neural Prosthesis Seminar

**“Conductive Diamond for Implantable
Neurological Devices”**

December 10, 2010 • 8:30 AM
Biomedical Research Building • BRB 105
Case Western Reserve University



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Abstract:

Robust implantable electrodes enable functional electrical stimulation and neurosensing technologies and expand their benefits to applications in human health. Conductive diamond provides the opportunity to integrate sensing and stimulation in the same robust device. Diamond stimulators may operate while avoiding tissue and electrode damage. Diamond sensors could be used to examine new neurochemistries and detect lower analyte concentrations. This presentation focuses on diamond-film electrode development and application in tissue for (a) stimulation of neural activity, and (b) detection of neurotransmitters, neuromodulators, and electrical activity. Unique fabrication and materials integration approaches to render the electrodes flexible will be presented.

For more information, please contact Cathy Naples at (216) 707-6490.

Live stream video link for each lecture at www.FEScenter.org/Seminar