

Neural Prosthesis Seminar

February 20, 2009

8:30 AM to 9:30 AM

Biomedical Research Building - BRB 105
Case Western Reserve University

“Upper Extremity Neuroprostheses for Spinal Cord Injury”



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Abstract:

The loss of hand and arm function due to cervical level spinal cord injury can severely restrict an individual's ability to perform even simple activities such as eating and personal hygiene. Implanted neuroprostheses, which utilize functional electrical stimulation to activate paralyzed muscles, can provide these individuals with hand opening and closing, thus improving function and independence. The first implanted neuroprostheses for upper extremity function were introduced at the Cleveland FES Center in 1986. Over 250 individuals have received various generations of these systems over the past 20 years. The functional outcomes of these systems have been uniformly positive. We are now gathering long term usage data on a significant number of neuroprosthesis users. This talk will discuss the functional results of these systems, including long term follow-up results. Recent advances in upper extremity neuroprostheses, including myoelectric control and multi-function systems, will also be discussed.

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This seminar is sponsored by the FES and the APT Centers - For more information, please contact Cathy Walker at 216-707-6390

The Cleveland FES Center is a consortium in Functional Electrical Stimulation technology including the Louis Stokes Cleveland VAMC, Case Western Reserve University, and the MetroHealth Medical Center