

## Neural Prosthesis Seminar

# “Musculoskeletal Tissue Engineering”

April 13, 2012 • 8:30 AM

Biomedical Research Building • BRB 105

Case Western Reserve University



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#### **Abstract:**

There are injuries to connective tissues that have good treatment options, and that result in acceptable functional recovery for the patient. There are, however, clinical situations for which current treatment options are not optimal. This presentation will discuss injuries to two of those tissues, bone and nerve (both central and peripheral nervous systems) where opportunities for treatment improvements exist. Patients who have segmental peripheral nerve defects, segmental bone defects, and spinal cord injuries sometimes have less than desired functional outcomes despite current state-of-the-art treatment. Tissue engineering strategies are potential emerging options for these applications. Combinations of synthetic scaffolds, cells, and controlled delivery of biomolecules are attractive candidates for treatment in some clinical situations of bone or nerve defects. Each of these components of a regenerative medicine/tissue engineering strategy will be discussed with respect to their optimization in planning a treatment program, along with examples of clinical scenarios for which they may potentially be used to help patients.

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

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