

MECHANICAL ENGINEERING DEPARTMENT
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Tendon Injury and Repair in a Rotator Cuff Animal Model

by

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Wednesday, November 28, 2007

3:15 p.m. — Refreshments before the seminar

3:30 p.m. — Graduate Seminar

Room 2-101 Hasselmo Hall

ABSTRACT — Rotator cuff damage due to degeneration and/or injury is a common cause of significant pain and disability affecting the young and old alike in workplace, recreational, athletic, and aging environments. The overall goal of this work is to understand the etiology, pathogenesis, potential mechanisms and repair response to injuries of the rotator cuff of the shoulder through the development and utilization of animal models of common rotator cuff injuries. Using these models, factors believed to be important in the process are initiated in a controlled and reproducible manner and their effect evaluated over time. Studies will not only address rotator cuff tendinosis, but also rotator cuff defects, and injuries at the tendon to bone insertion site in acute and delayed repair settings. These studies provide both fundamental and applied information on the injury and repair processes of tendon injuries.

BIO — **Lou Soslowsky** received his Ph.D. from Columbia University in Engineering Mechanics and Biomechanics and began his first faculty appointment at the University of Michigan in 1991. In 1997, he was recruited to the University of Pennsylvania where he is now Professor of Orthopaedic Surgery and Bioengineering, Vice Chair for Research in the Department of Orthopaedic Surgery, and Director of the McKay Orthopaedic Research Laboratory. This research laboratory has over 11,000sqft of research space, 7 faculty, and over 60 researchers and trainees. In 2006, he also became the Founding Director of the new NIH-sponsored Penn Center for Musculoskeletal Disorders. Dr. Soslowsky's research goals are to determine fundamental relationships and mechanisms of tendon and ligament injury, healing, repair, and regeneration and to use this information to develop and evaluate potential treatment modalities. Dr. Soslowsky has had grant funding from the NIH, the Whitaker Foundation, the OREF, and from industry. He has won several awards including the YC Fung Young Investigator Award, the Charles Neer Award (twice), and the Hughston Award. He is a Fellow of ASME and AIMBE, and is a Past Chair of the Bioengineering Division of ASME. He is the Basic Research Editor for the Journal of Shoulder and Elbow Surgery and he is on the Advisory Boards for the Journal of Biomechanics and the Journal of Orthopaedic Research.

Informal Faculty Luncheon: Wednesday, November 28, 2007, 12:00 noon. Meet in 1100 ME and walk to lunch with other faculty. Dr. Lou Soslowsky will be able to attend.

Faculty Hosts: Prof. John C. Bischof (ME) and Prof. Victor H. Barocas (BME)