ABSTRACT:

REVERSING ACCUMULATION OF TENDON DAMAGE AND ENHANCING HEALING OF RUPTURED TENDONS

Why do tendons accumulate sub-rupture damage that does not repair? Why do tendon ruptures heal by forming scar that is structurally and mechanically inferior to the uninjured tissue? In this talk, I will discuss my lab’s work on halting the progression of sub-rupture accumulation of damage and highlight some of the biomechanical therapeutic approaches that we are exploring. I will also discuss some of our work utilizing an improved-healer inbred mouse model to develop a therapeutic to promote scar-less healing in ruptured tendons.

BIOGRAPHY:

Dr. Nelly Andarawis-Puri is an Associate Professor and the Associate Director of Graduate Programs in the Sibley School of Mechanical and Aerospace Engineering at Cornell University. She also serves as the Director of Graduate Programs for Mechanical Engineering. Prior to her appointment at Cornell in 2016, she was an Assistant Professor in the Leni and Peter W. May Department of Orthopaedics at the Icahn School of Medicine at Mount Sinai in New York City. She holds a B.S. from Columbia University in Biomedical Engineering, and a Ph.D. from the University of Pennsylvania in Bioengineering with Dr. Louis Soslowsky as her graduate mentor. She completed her post-doctoral training with Dr. Evan Flatow at the Icahn School of Medicine at Mount Sinai. She was the recipient of the Kappa Delta Young Investigator award in 2018.