



Seminar Series



Dr. Catherine K. Kuo

Associate Professor

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Zoom link:

<https://bit.ly/3kFgkqL>

Password:

725253

Tendon Regeneration Informed by Mechanobiology of Embryonic Development

November 11 • 12:05–1:20 p.m.

ABSTRACT

Tendons play critical roles in skeletal movement and stability, yet when injured are incapable of restoring native functional properties through healing. Dr. Catherine K. Kuo's research program aims to advance tendon regenerative medicine strategies by identifying critical physicochemical regulators of embryonic tendon mechanobiology. Her team is characterizing structure-property relationships of embryonic tendons to identify key regulators of tendon formation that may serve as therapeutic targets for adult tendon regeneration. They are studying the mechanobiology of embryonic tendon development with the goal of developing intrauterine interventions to prevent and treat congenital musculoskeletal birth deformities. Their research has been continuously funded by the NIH, DoD, NSF, the March of Dimes Foundation, and industry.

BIO

Dr. Catherine K. Kuo is an associate professor of bioengineering in the Clark School of Engineering at the University of Maryland, College Park. She also holds an appointment in the Department of Orthopaedics in the School of Medicine at the University of Maryland, Baltimore. Dr. Kuo is an elected fellow of the American Institute for Medical and Biological Engineering (Class of 2019) and was elected to the Council for the Tissue Engineering and Regenerative Medicine Society of Americas in 2020. She has received multiple honors and awards including the Orthopaedic Research Society (ORS)-GoLife Innovation in Research Award, Emerging Investigator Award by *Stem Cell Research and Therapy*, March of Dimes Basil O'Connor Starter Scholar Research Award, and NSF CAREER Award. Dr. Kuo serves on the ORS Publications Advisory Board for the *Journal of Orthopaedic Research*, and on multiple editorial boards of major journals in the fields of tissue engineering and regenerative medicine, biomaterials, orthopaedics, and biomedical engineering. She received her bachelor of engineering in materials science and engineering and doctorate in biomaterials and macromolecular science and engineering from the University of Michigan and did her postdoctoral studies at the NIH in the Cartilage Biology and Orthopaedics Branch.