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PRESENTS

Developing skeletal muscle and gene editing strategies using human pluripotent stem cells

THURSDAY, May 28th, 2020
12:00 – 1:00 PM
Zoom Link:
https://ucla.zoom.us/j/3578398609

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ABSTRACT:

Human pluripotent stem cells offer enormous promise for improving our understanding of human development and potential for disease modeling in a dish. We will update on our progress in developing cell and gene editing approaches for muscle disease using human pluripotent stem cells and in vivo in animal models of muscle disease.

BIOGRAPHY:

Dr. Pyle is a Professor and Vice Chair in the Department of Microbiology, Immunology and Molecular Genetics, and a member of the Eli and Edythe Broad Center of Regenerative Medicine and Stem Cell Research (BSCRC) at UCLA. Dr. Pyle completed her postdoctoral fellowship work with Peter Donovan in 2006 at Johns Hopkins University and obtained her Ph.D. with Dr. Mary Ann Handel from the University of Tennessee, Knoxville in 2002. Dr. Pyle's lab uses multi-disciplinary approaches to study muscle stem cells, human pluripotent stem cells and differentiation. Dr. Pyle's lab studies both basic aspects of stem cell biology, reprogramming, and muscle development as well as more translational aspects to develop therapeutic approaches for patients with Duchenne Muscular Dystrophy (DMD). The lab is interested in developing ex vivo and direct in vivo CRISPR correction stem cell strategies for DMD. Dr. Pyle is also co-founder of MyoGene Bio which aims to develop a therapeutic CRISPR/Cas9 platform designed to restore the reading frame of the DMD gene. Her work is funding by NIH, CDMD, CIRM, BSCRC, and CTSI. Dr. Pyle is currently a standing member of the NIH Skeletal Muscle Study Section (NIAMS/SMEP). Dr. Pyle has received many awards including the UCLA Life Sciences Faculty Excellence Award, the Rose Hills Foundation Scholar and the Ablon Scholars Award.