



2020 UW CTMR ANNUAL SYMPOSIUM (Virtual) November 30–December 1, 2020

Registration: https://washington.zoom.us/webinar/register/WN_NYV62wUUQ-qBJ4NdGDZKgw

Monday, November 30, 2020 (12:00–5:00 pm)

- 12:00 pm Welcome and Introduction of Keynote Speaker
Michael Regnier, PhD, Director, CTMR
- 12:05 pm Keynote Address
Beth McNally, MD, PhD, Elizabeth J. Ward Professor and Director, Center for Genetic Medicine, Northwestern University Feinberg School of Medicine
Genetic Pathways for Cardiomyopathy: Rare and Common Variation
- 1:05 pm Break
- 1:15 pm CTMR Pilot Grant Awardee Presentations
Matthew Campbell, PhD, Acting Instructor, Radiology
The Role of Nox4 in Mitochondrial Substrate Utilization Following Exercise
Nagana Gowda, PhD, Research Associate Professor, Anesthesiology & Pain Medicine
Mitochondrial Metabolism in Real Time Using NMR Spectroscopy
Farid Moussavi-Harami, MD, Assistant Professor, Cardiology
Striated Muscle Simulations Reveal Unique Twitch Features
Alec Smith, PhD, Acting Instructor, Physiology & Biophysics
Investigating the Impact of Innervation on the Development of Human Stem Cell-Derived Skeletal Muscle
- 2:20 pm Break
- 2:30 pm Research Talks
Mary Beth Brown, PT, PhD, Associate Professor, Rehabilitation Medicine
Investigating Skeletal and Cardiac Muscle Responses to Exercise in Rodent Models to Optimize Exercise Prescription for Patients
Lisa Maves, PhD, Assistant Professor, Pediatrics
Epigenetic Small Molecule Approaches for Understanding DMD Mechanisms
Kat Steele, PhD, Associate Professor, Mechanical Engineering
Musculoskeletal Simulation: Open-source Tools to Probe Muscle Pathology to Function
- 3:20 pm Break

3:30 pm Clinicians Panel
Moderator: **Michael Regnier, PhD**, Director, CTMR
Michael Bamshad, MD, Professor, Pediatrics
Martin (Casey) Childers, DO, PhD, Chief Medical Officer, Asklepios BioPharmaceutical (AskBio)
Nassim Rad, MD, Assistant Professor, Rehabilitation Medicine
Michael Weiss, MD, Professor, Neurology

4:30 pm Day 1 Closing

Tuesday, December 1, 2020 (8:00 am–12:00 pm)

8:00 am Panel Discussion: Research-focused Centers
Moderator: **Daniel Raftery, PhD**, Director, CTMR Metabolomics Core
Jeffrey Chamberlain, PhD, Director, Senator Paul D. Wellstone Muscular Dystrophy Specialized Research Center
Jennifer Davis, PhD, Director, Center for Cardiovascular Biology (CCB)
Charles E. Murry, MD, PhD, Director, Institute for Stem Cell and Regenerative Medicine (ISCRM)
Rong Tian, MD, PhD, Director, Mitochondria and Metabolism Center (MMC)

9:20 am Break

9:30 am Panel Discussion: Resource-focused Centers
Moderator: **Thomas Daniel, PhD**, Director, CTMR Quantitative Analysis Core
Rodney Ho, PhD, Executive Director, and **Terri Butler, PhD**, Associate Director of Technology Outreach & Partnerships, Washington Entrepreneurial Research Evaluation and Commercialization Hub (WE-REACH)
Jeffery Jarvik, MD, MPH, Director, Clinical Learning, Evidence and Research (CLEAR) Center for Musculoskeletal Research
Michael Regnier, PhD, Director, CTMR
Melissa Vaught, PhD, Director of Research Development, Institute of Translational Health Sciences (ITHS)
Fiona Wills, PhD, Associate Vice Provost for Innovation Development & Commercialization, CoMotion

10:50 am Break

11:00 am Trainee Lightning Talks
Samantha Bremner, Predoctoral Student, Bioengineering
Human Engineered Heart Tissues as a Model of Duchenne Muscular Dystrophy
Matthew Childers, PhD, Postdoctoral Fellow, Bioengineering
Optimizing Myosin Motor Dynamics with dATP
Matthew Karolak, PhD, Postdoctoral Fellow, Neurology
Therapeutic RNAi Treatment for Myotonic Dystrophy
SiWei Luo, PhD, Postdoctoral Fellow, Rehabilitation Medicine
Evaluating Exercise Capacity and Adaptations in a Rat Model of Duchenne Muscular Dystrophy (DMD)
Ana Valencia, PhD, Postdoctoral Fellow, Radiology
Recovery from Injury is Maintained in Sarcopenic Mouse Muscle

11:55 am Closing