



2026 UW CTMR ANNUAL SYMPOSIUM

Wednesday, September 16, 2026 | 9:00am – 6:00 pm PT

[Orin Smith Auditorium \(Building C\)](#)

UW SLU | 850 Republican St | Seattle, WA, 98109

ZOOM: <https://washington.zoom.us/j/99813070411>

THEME: ENGINEERED MUSCLE TISSUES AND ORGANOIDS

- 8:45 am** **Coffee and Tea**, Building C Lobby
- 9:00 am** **General Welcome & Keynote Speaker Introduction**
Mike Regnier, PhD, CTMR
Jennifer Davis, PhD, Introduction of BioFoundry
- 9:10 am** **Keynote Session I**
Introduction/Moderator: Nate Sniadecki, PhD, CTMR Mechanics & Devices Core
Kevin Healy, PhD, Jan Fandrianto and Selfia Halim Distinguished Professorship in Engineering, Departments of Bioengineering, and Materials Science and Engineering, University of California, Berkeley
Title: ***Exploiting new approach methodologies (NAMs) for discovery and optimization of heart therapeutics***
- 10:00 am** **Break**
- 10:20 am** **CTMR Pilot Grant Awardees (Year 7)**
Moderator: David Beck, PhD, Co-Core Director, CTMR Quantitative Analysis Core
Shabnam Salimi, MD, MSc, FAHA, Acting Assistant Professor, Department of Anesthesiology & Pain Medicine
Title: ***From Metabolomics to Epigenetics Signatures of Aging Skeletal Muscle and Mice Frailty***
Guy Odom, PhD, Research Associate Professor, Department of Neurology
Title: ***Linking cardiac biophysical performance to protein redesign of micro-trophin in DMD mice***
Wentao Zhu, PhD, Research Assistant Professor, Department of Anesthesiology & Pain Medicine

Title: ***Investigating the Metabolic Basis of Chronic Pain in Spinal Muscular Atrophy (SMA) Through Comprehensive Metabolomics Analysis***

Tristan Wasley, PhD Candidate, Regnier Lab, Department of Bioengineering

Title: ***Molecular dynamics simulations of myosin and thick-filament regulatory protein phosphorylation***

Pat Boyle, PhD, Associate Professor, Department of Bioengineering

Joe Powers, PhD, Assistant Professor Department of Laboratory Medicine & Pathology and Mechanical Engineering

Title: ***Effects of filamin C deletion on multiscale structure-function relationships in muscle***

Alec Smith, PhD, Assistant Professor, Department of Neurobiology & Biophysics

Title: ***Investigating the functional effect of b-adrenergic stimulation on CRISPR-edited human iPSC-derived myoblasts harboring ALS-associated mutations***

Jenny Robinson, PhD, Associate Professor, Mechanical Engineering, and Endowed Chair in Women's Sports Medicine and Lifetime Fitness Orthopaedics and Sports Medicine

Title: ***Estradiol-Dependent Regulation of ERα Isoforms and Mechanotransduction in Human Mesenchymal Stromal Cells (hMSCs)***

12:00 pm **Lunch Break & Vendor Fair**, C123A/B, Lunch provided for registered participants

1:30 pm **Keynote Session II**

Introduction/Moderator: **Mike Regnier, PhD**, CTMR Director

Hector Rodriguez, PhD, Vice President of New Targets, Kardigan

Title: ***From bench to bedside: a LGMD story***

2:20 pm **Recent CTMR Pilot Grant Awardees (Year 8)**

Moderator: **Dan Raftery, PhD**, Core Director, CTMR Metabolism

Matthew Campbell, PhD, Research Assistant Professor, Radiology

Presented by **Rian Sherper, Research Associate**

Title: ***Exercise training effects in three-dimensional engineered muscle tissue***

Xinxian Deng, PhD, Research Associate Professor, Lab Medicine & Pathology

Christine Disteche, PhD, Professor, Lab Medicine & Pathology

Title: ***Functional analyses of muscle cells with a different number of sex chromosomes***

Haiming Kerr, PhD, Acting Assistant Professor, Medicine, Division of Gerontology and Geriatric Medicine

Title: ***AMPK regulation of contractility in 3D-engineered muscle tissues under humanized cachectic conditions***

Cole DeForest, PhD, Professor, Chemical Engineering & Bioengineering

Title: ***In-Situ Manipulation of cMyBP-C Function in Human iPSC-Derived Cardiomyocytes***

Michael Bamshad, PhD, Professor, Pediatrics

Christian Mandrycky, PhD, Research Scientist 4, Bioengineering

Title: ***Characterizing a newly generated rat model of Distal Arthrogryposis***

Alec Smith, PhD, Assistant Professor, Department of Neurobiology & Biophysics
Title: *Modeling sexual dimorphism in skeletal muscle function using stem cell-derived engineered tissues*

3:20pm Break

3:40 pm Invited Speakers

Moderator: **Jen Davis, PhD**, Co-Core Director, CTMR Quantitative Analysis Core

Nicholas Geisse, PhD, CEO of Curi Bio

Title: *Organ on chip models of muscle function to address the translation problem in drug development*

Nate Sniadecki, PhD, Professor, Mechanical Engineering, UW

Title: *Get on the Same Beat: Development of a Consensus Standard for Cardiac Microphysiological Systems*

4:30 pm Lightning talks

Moderator: **Joe Powers, PhD**, CTMR Mechanics & Devices Core

Alexander Robinson, Research Scientist, Ruohola-Baker Lab

Title: *Designed Protein Cocktail Rewires Receptor Signaling to Drive Myogenesis in Direct Reprogramming and Engineered Tissues*

Sasha Smolgovsky, PhD, Postdoc, Davis Lab

Title: *Myocyte hypocontractility heightens fibroblast abundance leaving the heart sensitized to hypertrophic stimuli following recovery*

Tristan Wasley, PhD Student, Regnier Lab

Title: *Investigating Cardiac Myosin Binding Protein-C-Mediated Thick Filament Regulation Using In Silico Computational Modelling*

Matthew Childers, PhD, Research Scientist / incoming faculty, Regnier/Childers Labs

Title: *Modeling myosin's departure from the IHM with molecular simulation*

Vinay Jani, PhD Student, Moussavi-Harami/Regnier Labs

Title: *Biophysical mechanisms of dysfunction for the troponin C G34R and G34S variants*

Ashild Telle, PhD, Postdoc, Boyle Lab

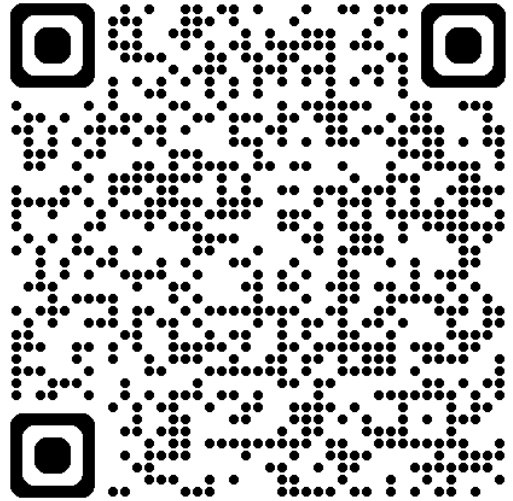
Title: *Decreased sarcomere alignment impairs myocyte contraction and increases sub cellular stress levels*

4:50 pm Poster Session & Networking Reception- Light snacks and drinks
Building C Lobby

6:00 pm Symposium Wrap Up

Scan below for a digital copy
of the SCHEDULE

Scan below for a digital copy
of the ABSTRACT BOOK of poster
presentations



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Questions? Please contact: Katie Mitzelfelt, kmitz@uw.edu

<http://ctmr.washington.edu/>

