



2024 UW CTMR ANNUAL SYMPOSIUM

Tuesday, November 12, 2024

9:00am – 6:30 pm Pacific Time

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

UW, SLU, 850 Republican St. Seattle, WA. 98109 United States

- 8:45 am **Coffee and Tea**, Building C Lobby
- 9:00 am **General Welcome & Introduction to CTMR Cores**
Administrative Core
by [Michael Regnier, PhD](#), Director & [Katie Mitzelfelt, PhD](#), Program Manager
Mechanics and Devices Core
by [Michael Regnier, PhD](#), Core Director
Metabolism Core
by [Dan Raftery, PhD](#), Core Director
Quantitative Analysis Core
by [Jen Davis, PhD](#) & [David Beck, PhD](#), Co-Core Directors
- 9:45 am **CTMR Pilot Grant Awardees (Year 5)**
Moderator:
[Shiri Levy, PhD](#), Acting Instructor, Department of Biochemistry
Title: *TBA*
[Matthew Campbell, PhD](#), Acting Assistant Professor, Department of Radiology
Title: *Decreased force in a human 3D engineered muscle tissue model of aging*
[Logan Murphy, PhD](#), Acting Instructor, Department of Physiology & Biophysics
Title: *TBA*
[Matthew Walker, PhD](#), Research Assistant Professor, Department of Anesthesiology & Pain Medicine
Title: *Computational approaches to study regulation of mitochondrial RNase P: Implications for muscle mitochondrial biogenesis in heart failure*
- 10:45 am **BREAK**
- 11:00 am **Keynote Session Introduction & Moderator**
by [David Marcinek, PhD](#), Co-Investigator, CTMR Metabolism Core
- 11:05 am **Keynote Session: Investigators from the Study of Muscle, Mobility, and Aging (SOMMA)**
[Steve Cummings, MD](#), Professor of Medicine, University of California, San Francisco
Title: *TBA*
[Nancy Glynn, PhD, FACSM, FGSA](#), Associate Professor of Epidemiology, University of Pittsburgh
Title: *TBA*

Paul Coen, PhD, Associate Investigator at the Translational Research Institute, Advent Health Research Institute

Title: *TBA*

Panel Discussion

12:30 pm **BREAK**, C123A/B, boxed lunches provided

1:30 pm **Recent CTMR Pilot Grant Awardees (Year 6)**

Moderator:

Silvia Marchianò, PhD, PharmD, Acting Instructor, Department of Laboratory Medicine & Pathology and **Elaheh Karbassi, PhD**, Acting Instructor, Department of Laboratory Medicine & Pathology

Title: *Mutational screening of ribonucleotide reductase (RNR) activity for improved cell-based heart regeneration*

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

Title: *Measuring and modeling emergent mechanical behavior of remodeled myocytes due to Filamin C deletion*

Wentao Zhu, PhD, Acting Assistant Professor, Department of Anesthesiology & Pain Medicine

Title: *A Comprehensive Metabolomics Investigation into the Molecular Mechanisms of ZFYVE1 in a Mouse Model of Heart Failure.*

Matthew Childers, PhD, Research Scientist 4, Department of Bioengineering

Title: *Examining the Mechanisms of the Dilated Cardiomyopathy-Associated Myosin Mutation R369Q*

Joel Chamberlain, PhD, Research Associate Professor, Division of Medical Genetics, and **Seung Wook Oh, PhD**, Chief Operating Officer, Kinea Bio, Inc.

Title: *Cell-derived nanoparticle functional assessment in model cells as a delivery platform for muscular dystrophy antisense therapy*

Shabnam Salimi, MD, MSc, FAHA, Acting Instructor, Department of Anesthesiology & Pain Medicine

Title: *Mechanistic Insights into DOX-induced Accelerated Aging and Mitigation Strategies*

2:15 pm **Poster Lightning Talks**

Moderator:

2:45 pm **Poster Break-** C Building Lobby

4:00 pm **CTMR Investigator Talks**

Jenny Robinson, PhD, Assistant Professor, Orthopaedic Surgery & Sports Medicine & Mechanical Engineering

Title: *Tools to Interrogate Sex Differences in Estrogen Signaling for Musculoskeletal Applications*

Bert Tanner, PhD, Associate Professor, Washington State University

Title: *Emulating muscle-tendon dynamics via real-time feedback at the onset of contractile activation in single skeletal muscle fibers*

Hichem Tassaout, PharmD, PhD, Acting Assistant Professor, Department of Neurology

Title: *SIMPLI-GT: A Novel Gene Replacement Method to Express Large Proteins in Musculoskeletal Disease*

Loretta Little, Managing Director, Washington Research Foundation

Title: *Pathways to Commercialization*

5:00 pm

Featured Research Talk

Shelly Sakiyama-Elbert, PhD, Professor Department of Bioengineering and Vice Dean of Research and Graduate Education, UW School of Medicine

Title: *TBA*

5:20 pm

CTMR Renewal Celebration

Speakers:

Michael Regnier, PhD, CTMR Director

Shelly Sakiyama-Elbert PhD, Vice Dean, UW School of Medicine

Jihui Yang, PhD Vice Dean, UW College of Engineering

Jen Davis, PhD, Director of the Center for Cardiovascular Biology, Interim Director of The Institute for Stem Cell & Regenerative Medicine

5:40 pm

Poster Session and Reception, Building C Lobby
Appetizers, beer, wine, and softdrinks will be served

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

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