



2021 UW CTMR ANNUAL SYMPOSIUM (Virtual) November 1 – November 2, 2021

To register visit: <https://forms.gle/7U1q7zjo8AYjRDmj9>

A Zoom link will be emailed to all registrants

Monday, November 1, 2021 (12:00–5:00 pm PT)

- 12:00 pm Welcome and Introduction of Keynote Speaker
Michael Regnier, PhD, Director, CTMR
- 12:10 pm Keynote Address
Rong Tian, MD, PhD, Professor and Director, Mitochondria and Metabolism Center
University of Washington School of Medicine
Mitochondrial function in health and disease
- 1:15 pm Break
- 1:30 pm CTMR Pilot Grant Awardee Presentations
Lindsey Anderson, PhD, Acting Instructor, Department of Medicine. Division of Gerontology & Geriatric Medicine
Metabolomics approach to characterize the effects of androgen deprivation therapy on skeletal muscle in prostate cancer patients
Travis Tune, PhD, Research Scientist, Daniel Lab, Department of Biology
Machine Learning Meets Monte Carlo Methods for Muscle Models
Jennifer Davis, PhD, Associate Professor, Departments of Lab Medicine and Pathology and Bioengineering
The role of MBNL1-Transcriptome Reprogramming In IPS-Skeletal Muscle Differentiation
- 2:30 pm Research Talks
Claudia Moreno, PhD, Assistant Professor. Department of Physiology and Biophysics
Falling apart: age-associated disruption of adrenergic signaling microdomains in cardiac pacemaker cells
Joel Chamberlain, PhD, Research Associate Professor, Wellstone Muscular Dystrophy Specialized Research Center, Institute for Stem Cell & Regenerative Medicine, Division of Medical Genetics, Department of Medicine
The Prominent Dominant Muscular Dystrophies DM and FSHD
David Mack, PhD, Associate Professor, Departments of Rehabilitation Medicine, Bioengineering & PBio, Investigator at the Institute for Stem Cell and Regenerative Medicine.
Stem cell-derived skeletal muscle for modeling neuromuscular diseases in 2D and 3D

- 3:30 pm Break
- 3:45 pm CTMR Pilot Grant Awardee Presentations
- Nagana Gowda, PhD**, Research Associate Professor, Northwest Metabolomics Research Center
Mitochondria & Metabolism Center, Anesthesiology & Pain Medicine Department
Monitoring Cellular Energetics in Blood Using NMR Spectroscopy
- Mary Beth Brown, PT, PhD**, Associate Professor, Director of Research, Rehabilitation Medicine, Division
of Physical Therapy
Exercise responses in the DMD rat
- Fausto Carnevale Neto, PhD**, Acting Instructor, Northwest Metabolomics Research Center,
Mitochondria & Metabolism Center, Anesthesiology and Pain Medicine
The role of mitochondrial metabolism on quiescent muscle stem cell proliferation and myogenesis.
- Christian Mandrycky, PhD**, Postdoctoral scholar, Bioengineering, ISCRM
Fluorescent hiPSC Reporter Lines for Tracking Myogenesis and Maturation
- Matt Childers, PhD**, Postdoctoral Fellow, Heart and Muscle Mechanics Lab, Department of
Bioengineering
Structural and Dynamic Aspects of Actomyosin Association
- 4:55 pm Day 1 Closing

Tuesday, November 2, 2021 (8:00 am–1:00 pm PT)

- 8:00 am Introduction
- 8:05 am Keynote Address
- Ru Gunawardane PhD**, Executive Director, Allen Institute for Cell Science
Creating an image-based map of cell states from pluripotency through differentiation
- 9:15 am Break
- 9:30 am Panel Discussion: Industry
Moderator: **Michael Regnier, PhD**, Director, CTMR
- Hector Rodriguez**, Biology Lead, BridgeBio
- Alan Russell**, Co-founder and Chief Scientific Officer, Edgewise Therapeutics
- Nick Geisse**, Chief Science Officer of Curi Bio, Co-founder of Kinea Bio
- 10:30 am Student/Postdoc Lightning Talks
- Saffie Mohran** Graduate Research Assistant, Regnier & Mack Lab
*Embryonic myosin mutations T178I and R672C result in mechanical and structural dysfunction in hiPSC
derived skeletal myotubes*
- Ross Bretherton**, PhD Student, Davis & DeForest Groups, Dept. of Bioengineering
*A p38-MAPK fibroproliferative response is a central determinant of cardiac remodeling in inherited
dilated cardiomyopathy*
- Logan Bailey**, MSTP Student, Davis lab
MBNL1 Suppresses Cardiomyocyte Proliferation
- Kerry Kao**, Graduate Research Assistant, Regnier lab, Department of Bioengineering
*Mechanisms of contractile dysfunction for the hypertrophic cardiomyopathy MYH7 G256E mutation
studied using CRISPR-edited hiPSC-CMs*

Halli Benasutti, PhD Candidate, Chamberlain Lab, ISCRM
Gene Therapy Optimization for Limb-Girdle Muscular Dystrophy Type 2I

Sonette Steczina, Graduate Research Assistant, Regnier lab, Department of Bioengineering
Mechanisms of dysfunction in patient-derived cardiomyocytes with the hypertrophic cardiomyopathy-myosin binding protein-C E258K mutation

Henry Gong, BioCAT, Irving Lab, Department of Biological Science, Illinois Institute of Technology
X-ray Diffraction on Rat Skeletal Muscles

Abby von Hagel, Post-Baccalaureate Researcher, Daniel Lab, Department of Biology
*Predicting muscle length changes from EMG activation in *Manduca sexta**

12 pm

Emily Carifi, PhD, NIH Program Director
NIH 101 for trainees and new investigators

For information, please contact:

Katie Dickinson, Department of Biology, katiejd8@uw.edu

After registrations, a Zoom link will be emailed to the registrant.