University of Washington  
INSTITUTE FOR STEM CELL AND REGENERATIVE MEDICINE  
Symposium  
Thursday, May 19, 2022  
Orin Smith Auditorium

Program

12:10 – 12:40  Andres Garcia, PhD, FBSE  
12:40 – 1:15  Lightning Talks  
1:15 – 1:45  Sharon Gerecht, PhD  
1:45 – 2:10  Break & Poster Session  
2:10 – 2:40  Freda Miller, PhD, FRSC, FAAAS  
2:40 – 3:00  Lightning Talks  
3:00 – 3:30  Erika Moore, PhD  
3:30 – 4:00  Doug Melton, PhD  
4:05 – 5:00  Catered Reception & Poster Session

12:00 – Opening Remarks

12:10-12:40 – Featured Speaker

Andres Garcia, PhD, FBSE, Georgia Institute of Technology  
Synthetic Hydrogels for Regenerative Medicine

12:40-1:15 – Lightning Talks

- Courtney Vishy  
  Read-through therapeutics reduce cystogenesis in a novel cohort of CRISPR base edited ADPKD organoids
- Mark Andrade  
  Unlocking pancreatic β-cell replication and regeneration by targeting of αE-catenin function
- Cecilia Villegas-Novoa  
  Formation of 3D Human Colonic Crypts with a Functional Mucus Layer
- Yu Jung Shin and Kira Evitts  
  Modeling amyloid beta peptide (Aβ) induced vascular dysfunction in engineered cerebral microvessels
- Takashi Ishida, PhD  
  Heterogeneity and dormancy of self-renewing fetal liver hematopoietic stem cells
- Daniel Ong  
  Prioritization of the pentose phosphate pathway during Xenopus tropicalis tail regeneration
- Abby Nagle  
  Endogenous Fret Measurement of Adhesion Tension in Engineered Human Stem Cells
- Ashish Phal  
  Investigating bifurcations in iPSC-derived endothelial cell subtype fates using AI-based, de novo designed FGFR-binding protein scaffolds

1:15-1:45 – Featured Speaker

Sharon Gerecht, PhD, Duke University  
Guiding Vascular Fate and Assembly
2:10-2:40 – Featured Speaker
Freda Miller, PhD, FRSC, FAAAS, University of British Columbia
Regeneration at your fingertips: molecular mechanisms underlying mammalian tissue regeneration

2:40-3:00 – Lightning Talks
- Rachel Wellington
  *Single Cell Analysis of Human Hematopoietic Development From Induced Pluripotent Stem Cells*
- Justin Lee
  *All-optical decoding of real-time Ca2+ / ROS dynamics enabled by novel genetically encoded near-infrared ROS sensor and computational image analysis framework*
- Thelma Escobar, PhD
  *NPM1: from chromatin structure to stem cell biology and cancer*
- Ron Kwon, PhD
  *Single-cell resolution of MET and EMT programs during zebrafish fin regeneration*

3:00-3:30 – Featured Speaker
Erika Moore, PhD, University of Florida
*Leveraging Biomaterials for Immune Cell Tuning*

3:30-4:00 – Featured Speaker
Doug Melton, PhD, Harvard Medical School
*Making Designer Pancreatic Islets from Stem Cells*

4:00 – Closing Remarks