

14th Annual CENTER for MUSCULOSKELETAL RESEARCH Symposium

Thursday, October 17, 2024



Zoom Link

<https://urmc.zoom.us/j/96380178562>

Clinical Hour Presentations

Class of '62 Auditorium (G-9425), URM

- 7:00 am *Welcome & Introduction*
- 7:04 am *Use of Machine Learning for Ultrasound Assessment of the Ulnar Nerve and Diagnosis of Cubital Tunnel Syndrome*
- 7:12 am *A Quantitative Analysis of Gait in Patients with Lumbar Degenerative Disease*
- 7:20 am *The Association of Hospital Volume and Patient Medical Complexity on Length of Stay, Complications, and Readmission Rates After Total Shoulder Arthroplasty*
- 7:28 am *Predictors of Successful Outcomes Following Revision Carpal Tunnel Release*
- 7:36 am *Post-traumatic Hip Osteoarthritis After Pelvic Ring Injuries*
- 7:44 am *Cost Analysis of Endoscopic Carpal Tunnel Release with MAC versus Local Anesthesia*
- 7:52 am *Utilization of an Artificial Intelligence-Based Documentation System Improves Provider Efficiency in Outpatient Orthopaedic Clinics*

Paul Rubery, MD
Akhil Dondapati, MD
Constantinos Ketonis, MD, PhD
Haseeb Goheer, BS
Ram Haddas, PhD, MBA
Patrick Castle, MD
Sandeep Mannava, MD, PhD
Akhil Dondapati, MD
Bilal Mahmood, MD
James Brodell, MD
Noah Joseph, MD
Thomas Carroll, MD
Constantino Ketonis, MD, PhD
Eric Davis, BA
Benedict DiGiovanni, MD

Rosier Award Presentations

Class of '62 Auditorium (G-9425), URM

- 9:00 am *Welcome & Introduction*
- 9:10 am *Unraveling the Nerve: Exploring the Role of Innervation in Aging Osteoarthritis Through Advanced 3D Light Sheet Microscopy*
- 9:25 am *Ca²⁺ Signaling Through CaV1.2 Ca²⁺ Channel Regulates Achilles Tendinopathy Development*
- 9:40 am *Enhanced Engulfment of Apoptotic Targets by Bone Marrow Stromal Cells Increases Their Senescence, Decreases Bone, and Causes Myeloid Skewing*
- 9:55 am *Lysosomal-associated Protein Transmembrane 5 (LAPTM5) Maintains Osteoblast Formation in Young Mice by Inducing Autophagy in BM-MSCs and Its Degradation Causes Age-related Bone Loss*
- 10:10 am *PRDM16 Maintains Cartilage Homeostasis by Modulating Chondrocyte Phenotypes Break*
- 10:25 am *Local Bone Remodeling Drives Clonal Expansion and Niche Interactions of Hematopoietic Stem Cells*
- 10:40 am **Break**
- 11:00 am **Deciding to Participate: Why It's Important?**
- 11:10am *Enabling New Insights into the Human Immune Response to Staphylococcus Aureus with a Dual-scale StaphAIR Biosensor*
- 11:25 am *Validating Anti-S. Aureus Immunotherapies via Time-Lapse Fluorescent Confocal Microscopy of Neutrophil Survival, Swarming, and Opsonophagocytosis of Bacteria on Metal Implants*
- 11:40 am *Fluid Flow Impacts Endothelial-Monocyte Interactions in a Model of Vascular Inflammatory Fibrosis*
- 11:55 pm *Optimizing Tissue Engineered Periosteum Biochemical Cues to Hasten Allograft Healing*
- 12:10 pm *Three-Minute Teasers (3MT) – Finalists for Best Poster Presentations*
- 12:50 pm **Annual CMSR Photo**
- 1:15 pm **Lunch & Poster Session**

Paul Rubery, MD
Hani Awad, PhD
Paromita Kundu, PhD
Lee Lab
Haiyin Li, MD, PhD
Cao Lab
Emily Quarato, PhD
Calvi Lab
Jun Wu, PhD
Boyce Lab
Eloise Fadiel, BS, MS
Wu Lab
Cih-Li (Amy) Hong, DVM
Yeh Lab

Laura Saxby Lynch
MSKI Council Member
Alanna Klose, MS
Miller Lab
Sashank Lekkala, MS
Schwarz Lab
Isabelle Linares, MS
Awad Lab
Alyson March, BS, MS
Benoit Lab

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Sarah Flaum Atrium (G-9500), URM

Plenary Session

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CMSR Faculty Spotlight

- 2:30 pm **Veronica Ulici, MD, PhD**
The Role of PI3K/Akt and JNK Signaling Pathways in Long Bone and Axial Skeleton Development
- 3:00 pm **Andrew Berger, PhD**
Of Mice and Humans: Trying to Prescreen for Osteoporosis Using Infrared Light
- 3:30 pm **Benjamin Miller, PhD**
Continuous Monitoring of Cytokine Secretion in a Human Tendon on a Chip

Keynote Presentation

- 4:00 pm **Jennifer J. Westendorf, PhD**
PHLPP1 and Injury-Induced Osteoarthritis

- 5:30 pm **Dinner and Rosier Awards Presentation**

Sarah Flaum Atrium (G-9500), URM

