

# Penn Orthopaedics Research Day 2019

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The annual Penn Orthopaedics Research Day brings together both clinical and research faculty and trainees to showcase the research that is being conducted within the Department of Orthopaedics at Penn Medicine. It is an opportunity to discuss the basic science and translational work that serves as the foundation for the field as well as the clinical impact that it has on our patients. The 2019 Research Day was held on June 10, 2019 in the Smilow Rubenstein Auditorium at Penn Medicine. Dr. Stuart B. Goodman, MD, MSc, PhD, the Robert L. and Mary Ellenburg Professor of Surgery in the Department of Orthopaedic Surgery at Stanford University, was the moderator for the symposium.

The presenters during the first session included Mark Hasenauer, MD; Jay Patel, PhD; Rikesh Gandhi, MD; Joseph Collins, BS; and Nicole Zelenski, MD, and spanned a range of topics from the molecular regulation of ossification centers during embryogenesis to the complications of revision arthroplasty. Following a poster viewing session, the 2019 research residents presented their studies. Dr. Matthew Counihan, MD, MS, discussed the role of “Limited Scar Resection for Chronic Achilles Repair: Use of a Rat Model” and Dr. Liane Miller’s, MD presentation focused on “Enhancing Interstitial Cell Migration in Dense Connective Tissues through Nuclear

Softening.” During this session Alexandra Stanley, PhD also discussed aberrant muscle tissue repair and Andrew Tyler, MD, PhD presented on the effects of local anesthetic in fracture healing.

The morning session concluded with a presentation by Guest Moderator Dr. Goodman who discussed “Osteonecrosis: Past, Present, and Future.” The poster presentation session that followed highlighted the wide variety of cutting edge work being done at Penn Orthopedics and provided an opportunity for both participants and judges to engage with the investigators. The afternoon presentation session continued with talks by Julianne Huegel, PhD; Leilei Zhong, PhD; Matthew Sloan, MD, MS; Ryan Charette, MD; Elaine Schmidt, MS; and Matthew Winterton, MD which also spanned the gamut of topics, including discussions of single cell transcriptomics in adipocytes, rat models of Achilles tendon injury, the use of tranexamic acid in arthroplasty, and global health opportunities in Madagascar. The afternoon concluded with a final review of posters for awards.

Presentation winners included Liane Miller, MD; Jay Patel, PhD; and Leilei Zhong, PhD, and poster winners were Sonia Bansal, BS; Ana Peredo, BS; Alexandra Stanley, PhD; Blake Meza, BS; and Sarah Gullbrand, PhD.



Stuart B. Goodman, MD, MSc, PhD served as moderator for the 2019 Penn Orthopaedic Research Day symposium.