Hospital Update



McKay Orthopaedic Research Laboratory



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The McKay Orthopaedic Research Laboratory of the Department of Orthopaedic Surgery in the Perelman School of Medicine continues to explore important problems in musculoskeletal research. The research facility, including labs and offices, occupies just over 15,000 sq. ft. of space on the 3rd, 4th and 5th Floors of Stemmler Hall. There are over 80 full- and part-time staff and trainees now in the labs. It is an active,

thriving research and educational environment.

Currently, the lab has an annual research budget from extramural grants, gifts, and endowments over \$7,000,000 and are in the number 4 position in NIH rankings for orthopaedic surgery departments in the country in terms of funding from the National Institutes of Health (NIH). This past year has seen a very impressive and continued rise in new grant activity amongst the faculty.

We have had several new grants awarded this year. These are: George Dodge, PhD

• PI of a Merck grant titled, "Role of FGF-18 in Cartilage Repair"

Matthew Fisher, PhD

 PI of a Musculoskeletal Transplant Foundation Jr. Investigator grant titled, "Controlled Release of Enzymes Using Nanofibrous Scaffolds to Improve Integration and Healing following Meniscal Injury"

Robert Mauck, PhD

 PI of an AO Foundation supplement titled, "Production of High Throughput Mechanical Screening (HTMS) Devices for the ACI Consortium"

Ling Qin, PhD

• PI of a NIH R03 grant titled, "EGFR Signaling in Growth Plate Development"

Eileen Shore, PhD

 PI of a Progressive Osseous Heteroplasia Association grant titled, "Molecular Pathophysiology of Progressive Osseous Heteroplasia (POH): The Molecular Biology of GNAS Expression in POH".

Louis Soslowsky, PhD

- PI of a NIH R01 supplement titled, "Mature & Aging Tendon: Extracellular Matrix Interactions in the Injury Response"
- PI of an Amniox Medical grant titled, "Studies of Amniotic Membrane for Tendon Healing"

 PI of a subcontract with Nemours Foundation titled, "Extracellular Matrix Structure and Function in Diabetic Wound Healing"

In addition to the above-mentioned new grants this year, each of the McKay Laboratory faculty remains well-funded through existing research grants not identified in this new grants list. Further, there were several new grants and clinical trials for our surgeon faculty this year. These are:

Craig Israelite, MD

- PI of an OREF Residency Enhancement grant
- PI of an OMeGA Residency grant

Samir Mehta, MD

• PI of a DOD grant titled, "A Randomized, Controlled, Ascending Dose Clinical Trial of a Bismuth-Thiol (BT) Topical Anti-Infective Drug for Treatment of Post-Surgical Orthopedic Infections"

Mara Schenker, MD

• PI of an AO North America Kramer Award titled, "Development of a Nanofibrous Scaffold with Biphasic Antibiotic Release for Treatment of Musculoskeletal Infections"

Brian Sennett, MD

 PI of a Histogenics Corporation clinical study titled, "A Randomized Comparison of NeoCart to Microfracture for the Repair of Articular Cartilage Injuries in the Knee"

David Steinberg, MD

• PI of a VA grant titled, "Cartilage Repair with Stem-Cell Laden Hyaluronic Acid Hyrogels"

Keith Wapner, MD

• PI of Small Bone Innovations study titled, "2-Year Post-Approval Study to Investigate the Star Ankle under Actual Conditions of Use".

Sarah Yannascoli, MD

• PI of an OREF grant titled, "Influence of Locally and Systemically Delivered Ibuprofen on Rotator Cuff Healing in a Rat Model"

We have also received several grants from DePuy Synthes for residents to attend various courses.

This year, we continued recruitment for additional research faculty through funds provided by the Perelman School of Medicine, in coordination with our Penn Center for Musculoskeletal Disorders. Growing musculoskeletal research, not only within the Department of Orthopaedic Surgery, but across the Penn campus has been a primary objective for our program and these efforts have been particularly successful thus far. We look forward to another exciting year.



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