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 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 StarAnkle 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.
We’ve got your back.

The Children’s Hospital of Philadelphia’s Division of Orthopedics has one of the best teams in the nation, with expertise in pediatric spine tumor, hip, foot and ankle, upper extremity, and hand surgery, as well as sports medicine. We provide safe and effective care for patients from diagnosis through recovery, performing nearly 3,500 surgeries and handling over 59,400 outpatient visits a year. We boast one of the most robust clinical research programs in the country, and have pioneered breakthroughs that offer greater hope to children with adolescent idiopathic scoliosis and improve safety during complex spine surgery.

Appointments are available in eight locations in PA and NJ. Visit www.chop.edu/ortho or call 215-590-1527 for more information about our services and how to refer.

Gina, 20, received spinal surgery at CHOP at age 15 to correct idiopathic scoliosis.