ORTHOPEDIC SURGERY AND MUSCULOSKELETAL SCIENCE FACULTY

LEADERSHIP
Bradford W. Olney, MD
Chairman, Department of Orthopedic Surgery
and Musculoskeletal Science

FACULTY
John T. Anderson, MD, FAAP
Pediatric Orthopedic Surgery
Lisa M. Berglund, MD
Pediatric Orthopedic Surgery
Greg S. Canty, MD
Medical Director, Sports Medicine Center
Fellowship Director, Sports Medicine
Christine J. Cheng, MD, MPH
Chief, Section of Hand Surgery
Margaret E. Gibson, MD
Family Medicine; Sports Medicine
Brian Harvey, DO
Sports Medicine
Dale E. Jarka, MD
Pediatric Orthopedic Surgery
Kathryn A. Keeler, MD
Pediatric Orthopedic Surgery
Kevin H. Latz, MD
Chief, Section of Sports Medicine
Donna M. Pacicca, MD
Pediatric Orthopedic Surgery
Nigel J. Price, MD, FAAP
Chief, Section of Spine Surgery
James H. Roberson, MD
Sports Medicine
Richard M. Schwend, MD, FAAP
Director, Orthopedic Research Program
Mark R. Sinclair, MD
Pediatric Orthopedic Surgery
Micah K. Sinclair, MD
Pediatric Hand Surgery
Natalie C. Stork, MD
Sports Medicine

BY THE NUMBERS
43,000+ Orthopedic clinic visits in 2018
17 Pediatric orthopedic faculty
23 Nurse practitioners
2 Physician assistants
10+ Fully dedicated physical therapists

RESEARCH STATISTICS
16 Peer-reviewed publications
9 National or international research presentations
29 Invited lectures
5 Book chapters
1 Book
16 Retrospective IRB-approved studies
4 Prospective studies

CHILDREN’S MERCY DEPARTMENT OF ORTHOPEDICS AND MUSCULOSKELETAL SCIENCE

With 17 orthopedic faculty members, the Children's Mercy Kansas City Department of Orthopedic Surgery and Musculoskeletal Science is one of the largest in the nation in a freestanding pediatric hospital. U.S. News & World Report ranks the program as one of the top programs in the country. Using a multidisciplinary collaborative approach, this team routinely answers questions surrounding the most complicated pediatric cases, and is leading the way to new, more effective treatments through a robust research program.

The Orthopedic Surgery Department provides a broad range of trauma, hand, musculoskeletal, sports medicine and general orthopedic services for children of all ages. The department also offers specialized evaluation and treatment of spine disorders in patients from birth through early adulthood, including early-onset scoliosis.

For athletes, Children’s Mercy developed the Center for Sports Medicine. Here, patients benefit from the Human Performance Lab, which offers state-of-the-art 3D motion analysis. This helps identify underlying causes for abnormalities and helps doctors plan the appropriate treatment for both young athletes and pediatric patients with a neuromuscular disorder.

A TOP-RANKED PROGRAM
One of the top-ranked pediatric orthopedic programs in the nation, according to U.S. News & World Report.
COMPREHENSIVE CLINICAL CARE
Children's Mercy offers a clinically diverse orthopedics and musculoskeletal science program, with a faculty that is committed to providing the highest quality of care to patients and delivering the best outcomes.

NEW GUIDELINE IMPROVES ACCESS TO SPORTS MEDICINE CARE
Timely appointments with a sports medicine physician for acute, nonoperative sports-related fractures is important for correct diagnosis and management – and for helping student athletes return to their sport more quickly and safely. In 2016, Children’s Mercy developed a new guideline for scheduling patients to see a sports medicine physician within 72 hours, in contrast to the typical four to seven days that was common at the time. Two years later, 80 percent of patients are scheduled to see a sports medicine physician within the established 72-hour window.

USING 3D MODELS TO PLAN SURGERIES
Neil Mardis, DO, Section Chief, MRI Physician Champion, 3D Printing at Children’s Mercy, oversees a lab with several 3D printers that are running almost 24/7. This lab is equipped with state-of-the-art technology that uses special cameras and sensors to record electrical activity in muscles, providing a full analysis of how a patient walks and moves. Data generated by each patient’s motion analysis can be used to guide treatment decisions for orthopedic surgery.

HUMAN PERFORMANCE LAB PROVIDES DATA FOR PLANNING PATIENT CARE
The Human Performance Lab helps clinicians plan treatment for patients who have been diagnosed with cerebral palsy, brain injuries, prematurity and other abnormal gait conditions. It is also used to evaluate athletes with sports-related injuries. The lab is equipped with state-of-the-art technology that uses special cameras and sensors to record electrical activity in muscles, providing a full analysis of how a patient walks and moves.

SUICIDE SCREENING FOR SPORTS MEDICINE PATIENTS
Research from the National Collegiate Athletic Association (NCAA) has shown that students who have suffered a sports injury may be at a greater risk of suicide, because student-athletes can become isolated and depressed when they are removed from their peers while recovering from an injury. To address this concern, Kevin Latz, MD, Chief, Section of Sports Medicine at Children’s Mercy, teamed up with Shayla Sullivan, MD, Child and Adolescent Psychiatrist, also at Children’s Mercy, to implement a suicide screening program for sports medicine patients.

Each sports medicine clinic patient age 12 and older is asked four yes-no questions in private, without a parent or guardian present, using the Ask Suicide-Screening Questions (ASQ) tool. If the staff identifies a patient as at-risk, they connect them to a social worker the same day for a more thorough evaluation. The child’s parents also are informed of the screening results. The social worker provides the necessary recommendations and makes referrals. Since the implementation of the suicide screening, approximately 2.7 percent of clinic patients have demonstrated an elevated risk for suicide.

To validate the effectiveness of the ASQ screening tool, Children’s Mercy, under the leadership of Dr. Sullivan, is completing a National Institute of Mental Health study, along with Boston Children’s Hospital.

LEADING THE WAY THROUGH CLINICAL STUDIES
The department is improving outcomes for its patients through innovative research. All faculty members engage in research on an extensive variety of topics, ranging anywhere from lawnmower injuries to the opioid epidemic.

SEPTIC HIP DECISION RULE HELPS PREDICT PEDIATRIC MUSCULOSKELETAL INFECTIONS
Numerous studies have reported an increased incidence of musculoskeletal (MSK) infections, such as septic arthritis, osteomyelitis and pyomyositis. Lisa Berglund, MD, orthopedic surgeon at Children’s Mercy, led a team to evaluate the performance of a septic hip clinical decision rule (CDR) in the evaluation of pediatric musculoskeletal infections. The team performed a retrospective study of children evaluated for an MSK infection in the Children’s Mercy emergency department from 2014 to 2016. The team concluded that a septic hip CDR demonstrates a low predicted probability of an MSK infection with zero or one clinical predictors present and moderate predictability with five predictors. Fever, refusal to bear weight and C-reactive protein > 20 mg/dL performed best and should alert providers to consider other MSK infections in addition to septic arthritis.

THE EFFECT OF PERSISTENT TOE WALKING ON SKELETAL DEVELOPMENT
The majority of children develop a mature gait pattern by age 3. Some children continue to walk on their toes after this age, however. Mark R. Sinclair, MD, Children’s Mercy, led a study to determine whether persistent idiopathic toe walking leads to compensatory skeletal changes in the pediatric foot and ankle. The study team observed radiographic evidence of skeletal changes at the talus in idiopathic toe walkers compared with controls, suggesting that persistent toe walking impacts the skeletal development of the talus.

WALTER P. BLOUNT HUMANITARIAN AWARD
Richard M. Schwend MD, Chief of Orthopedic Research at Children’s Mercy, was recently awarded the Walter P. Blount Humanitarian Award. This award is given to an individual who has provided outstanding service for those with spinal deformities, through their generous actions out of a sense of service to larger social and professional goals.

CHILDREN’S RESEARCH INSTITUTE
The Children’s Research Institute (CRI) at Children’s Mercy Kansas City is an integrated research environment where no boundaries exist between science and medicine. Here physicians, scientists, academic colleagues and philanthropic partners are collaborating to change the future for children. Research areas include genomics, precision therapeutics, immunotherapy and health outcomes, among many others. To enhance its research endeavors, a new building, future home to the CRI, is under construction. This building has been carefully designed to research and clinical care work as cross-functional teams, aligned together, to find answers to pediatric medicine’s most challenging questions.