Division Details

Division Data Summary

<table>
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<tr>
<th>RESEARCH AND TRAINING DETAILS</th>
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<tr>
<td>Number of Faculty</td>
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<td>Number of Joint Appointment Faculty</td>
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<td>Number of Support Personnel</td>
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<td>Peer Reviewed Publications</td>
<td>40</td>
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<th>CLINICAL ACTIVITIES AND TRAINING</th>
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<td>Number of Clinical Staff</td>
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<td>Number of Clinical Fellows</td>
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<td>Outpatient Encounters</td>
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Significant Accomplishments

Research Team Earns Neuromuscular Training Awards

Greg Myer, PhD, Sports Medicine Research Director, continues to lead a team of successful researchers in neuromuscular training. His team won the 2013 American Journal of Sports Medicine Systematic Review Award and the 2013 Clint Thompson Recognition for Clinical Advancement award in the Journal of Athletic Training. Myer also collaborated with Eric Wall in Orthopedics to win the 2012 AOSSM Innovative Outcomes Assessment Grant for “Optimization and External Validation of Non-invasive Outcome Prediction Algorithm for Knee Osteochondritis Dissecans in Children.”

Expanding Staff and Programs

Adam Kiefer, PhD, a researcher in virtual reality and postural coordination, joined us this year. We also added clinical faculty Kate Berz, DO, Greg Walker, MD, and new Division Director Kelsey Logan, MD, MPH, all of whom share research interests in concussion. Over the past year, a new Sports Medicine Outreach Program has been funded and staffed to provide training coverage and services to local high schools, clubs, organizations and local tournaments.

Significant Publications

This publication led by our new clinical faculty member is significant because it has provided the early evidence that young female athletes may take longer to become symptom free following sports-related concussion. This important finding outlines the critical sex specific factors to consider in returning a young athlete to sport following sport related concussion.


This significant publication was focused on the use of innovation analyses techniques to identify altered lower extremity coordination patterns in athletes following ACL reconstruction and return to sports participation. The results also indicate that dynamical coordination measures may provide objective measures of sensorimotor deficits following ACL reconstruction and can potentially guide rehabilitation interventions following reconstruction. Dr. Kiefer will join our research team in FY 14.


This landmark study was one of the first to assimilate the entire body of evidence related to Anterior Cruciate Ligament injury prevention into a single meta-analysis. The robust dataset allowed for the determination of age specific effects of interventions aimed at the reduction of knee injury. The significance of this published manuscript is reflected in its recognition for excellence with the American Journal of Sports Medicine Systematic Review Award.


This manuscript was recognized as the recipient of the Nicolas Andry Award of the Association of Bone and Joint Surgeons and is significant because it represents an entire body of work performed in the Division of Sports Medicine. This systematic presentation of the research innovations focused on the prevention of Anterior Cruciate Ligament injury is included in this manuscript.


This systematic review indicated a potential inverse dose-response relationship between neuromuscular training compliance and ACL incidence in young female athletes. The study findings implied that attending and completing the prescribed neuromuscular training sessions is an integral component of ACL prevention. This manuscript was distinguished for its contributions to the field with Clint Thompson Recognition for Clinical Advancement.

**Division Publications**


37. Sugimoto D, Myer GD, McKeon JM, Hewett TE. Evaluation of the effectiveness of neuromuscular


Faculty, Staff, and Trainees

Faculty Members

Teri McCambridge, MD, Associate Professor
  Leadership Division Director; Fellowship Director
  Research Interests Dr. McCambridge’s research interests include nutrition, running injuries, and strength training in youth.

Kate Berz, DO, Assistant Professor
  Research Interests Dr. Berz’s research interests are in injuries of the female athlete, nutrition, and Osteopathic Manipulative Therapy.

Nicholas Edwards, MD, MPH, Assistant Professor
  Research Interests Dr. Nicholas M. Edwards, MD, MPH is an NIH-funded clinician-scientist focused on the areas of physical activity promotion and cardiovascular disease prevention.

Kevin Ford, PhD, Adjunct
  Research Interests Sports injury prevention, biomechanical modeling techniques, lower extremity sports injuries

Timothy Hewett, PhD, Adjunct
  Research Interests Dr. Hewett’s research interests lie in neuromuscular, biomechanical and molecular adaptation of the muscular, boney and nervous systems to stresses such as growth, development and neuromuscular training.

Greg Myer, PhD, Assistant Professor
  Leadership Director of Research
  Research Interests Dr. Myer’s primary research interests are related to injury biomechanics, pediatric exercise science and exercise prevention strategies.

Michael Shaffer, DO, Assistant Professor
  Research Interests Injury prevention, altered foot mechanics, manipulative treatment of spine and pelvis related dysfunction, treatment of female athlete's medical and physical issues related to sport

Catherine Quatman-Yates, PT, DPT, PhD, Assistant Professor
  Research Interests Dr. Quatman-Yates is interested in optimizing post-concussion evaluation and rehabilitation processes for children and adolescents.

Laura Schmitt, PhD, Adjunct
  Research Interests Dr. Schmitt is interested in outcomes after ACL reconstruction, injury biomechanics,
Joint Appointment Faculty Members

**Mark Paterno, PhD, PT, MS, MBA, SCS, ATC**, Associate Professor (Occupational Therapy and Physical Therapy)

**Research Interests** Clinical Outcomes after Lower Extremity Injury, Rehabilitation Intervention Outcomes, Outcome after ACL Reconstruction

Clinical Staff Members

**Corey Ellis, MD**

Trainees

**Nate Bates, PhD Candidate**

**Randon Hall, MD, PGY-IV**

**Gregory Walker, MD, PGY-IV**

**Dai Sugimoto, PhD Candidate**

**Division Collaboration**

**Orthopaedics** » Eric Wall, MD

Bone Bruise Study

**Heart Institute** » Jeff Robbins, PhD; Jeffrey Anderson, MD, Richard Czosek, MD, Michelle Grenier, MD, Timothy Knilans, MD.

These long-term, ongoing studies involve Molecular Cardiovascular Biology and Sports Medicine examine the congenital basis for heart disease especially diseases that involve sudden death in the young. This collaboration will utilize a unique screening protocol to study sudden deaths in athletes.

**Preventive Cardiology** » Elaine Urbina, MD

This new five year study will measure the rate of cardiovascular aging in adolescents and young adults and determine which risk factors best predict accelerated aging.

**Rheumatology** » Susan Thompson, PhD

This collaborative effort between Sports Medicine and Rheumatology involved an examination of genetic risk factors for ACL tears and long-term knee osteoarthritis.

**Physical Medicine and Rehabilitation;** » Brian Hang, MD, Brad Kurowski, MD

This collaborative effort between Sports Medicine and PMR is a prospective assessment of risk factors for and effects of sports related concussions.

**Occupational Therapy/Physical Therapy** » Becky Reder

This collaborative effort between Sports Medicine and OT/PT includes working on projects related to the effects of interventions on injury risk, concussion and foot/ankle research.

**Comprehensive Children's Injury Center**

Development of multi-disciplinary head injury/concussion clinic, prevention program and treatment pathways.

**Center for Better Health and Nutrition** » Robert Siegel, MD

This project will evaluate advanced methods of physical activity assessment and feedback and their utility in children.

**Behavioral Medicine and Clinical Psychology** » Susmita M Kashikar-Zuck, PhD
The Divisions of Sports Medicine and Behavioral Therapy/Clinical Psychology have collaborated for a project entitled FIT (Fibromyalgia Integrative Training) Teens, during which adolescent patients with fibromyalgia are treated with our combined treatment protocol involving both Cognitive Behavioral Therapy and Integrative Neuromuscular Training to improve their coping abilities, improve their strength, mechanics, and postural control to overall enhance their ability to lead more active lifestyles.

**Grants, Contracts, and Industry Agreements**

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<tr>
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<td><strong>Effects of Physical Activity on Cardiovascular Risk Factors in Youth</strong></td>
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<td><strong>Optimization and External Validation on Non-Invasive Outcome Prediction Algorithm for Knee Osteochondritis Dissecans in Children</strong></td>
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<td>The American Orthopaedic Society for Sports Medicine</td>
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<td><strong>The Effects of the 2011 NFL Lockout on Musculotendinous and Ligamentous Injury Incidence Rates During the Competitive Season</strong></td>
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<td><strong>Neuromuscular Predictors of Outcome following Anterior Cruciate Ligament Reconstruction: a Prospective and Longitudinal Study of the Effect of Meniscus Injury</strong></td>
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