



Exercise & Sport Science Initiative Symposium
Thursday, October 11, 2018
8:00 am – 2:45 pm
Junge Family Champions Center, Ann Arbor, MI

Symposium Emcee: Katie Fraumann, BA, Executive Associate Athletic Director of Development, University of Michigan

8:00-8:30 am **Registration & Breakfast**

8:30-8:45 am **Welcome & Opening Remarks**

- **S. Jack Hu, PhD** – Vice President for Research, Office of Research, University of Michigan
- **Warde Manuel, MSW, MBA** – Donald R. Shepherd Intercollegiate Director of Athletics, University of Michigan

8:45-9:30 am

Panel Discussion: Athlete Rest and Recovery

Moderated by Geoff Burns, Kinesiology Doctoral

Candidate, Michigan Performance Research Laboratory, School of Kinesiology, University of Michigan

- **Amanda Eccleston, MS** – Professional Mid-Distance Runner, Brooks Running
- **Cathy Goldstein, MD** – Associate Professor of Neurology, Sleep Disorders Center, U-M Medical School
- **Stephen McGregor, PhD** – Professor of Exercise Physiology, Eastern Michigan University; USA Cycling Faculty Member and Coach
- **Alex Wong, Athletic Training Doctoral Candidate** – Associate Athletic Trainer, U-M Men's Basketball and Men's Golf

9:30-10:00 am

The Real-World Impact of Student Research

- **Traci Carson, Epidemiological Science Doctoral Candidate, School of Public Health** – Beyond the finish line: Low energy availability in female distance runners
- **Ian Fox, Computer Science and Engineering Doctoral Candidate** – The advantage of doubling: A deep



reinforcement learning approach to studying the double teaming in the NBA

- **Rachel Vitali, Mechanical Engineering Doctoral Candidate** – The use of wearable sensors to measure knee rotations on the field of play
- **Erika Yasuda, Movement Science Undergraduate Student, School of Kinesiology** – Using wearable technology to optimize performance

10:00-10:15 am **Break**

10:15-11:00 am **Panel Discussion: Strength and Conditioning in Elite Athletics**
Moderated by Georgia Giblin, Post-Doctoral Research Fellow, U-M Exercise & Sport Science Initiative and Detroit Tigers

- **Ben Herbert, BA** – Head Strength and Conditioning Coach, U-M Varsity Football
- **Bo Sandoval, MS** – Director of Strength and Conditioning, Ultimate Fighting Championship (UFC) Performance Institute
- **Yousef Zamat, MS** – Assistant Major League Strength and Conditioning Coordinator, Detroit Tigers

11:00-11:45 am **Panel Discussion: Youth Sports**
Moderated by Rebecca Northway, MD, Clinical Assistant Professor, Internal Medicine-Pediatrics, Primary Care Sports Medicine, University of Michigan

- **Lori Adams, BS** – Sport Dietician, Victory Program, McCallum Place
- **Tom George, PhD** – Assistant Clinical Professor, Sport Management and Health and Fitness, U-M School of Kinesiology
- **Cynthia LaBella, MD** – Medical Director, Institute for Sports Medicine, Ann & Robert H. Lurie Children's Hospital of Chicago; Professor of Pediatrics, Northwestern University Feinberg School of Medicine; Pop Warner Medical Advisory Committee
- **Edward Wojtys, MD** – William S. Smith Collegiate Professor of Orthopaedic Surgery; Board of Directors for the American Orthopaedic Society for Sports Medicine; NFL Injury and Safety Panel



11:45-12:15 pm

**Cutting-edge Sport Science: 2018 ESSI-funded
Interdisciplinary Research**

- **Cristine Agresta, PhD**, Assistant Research Scientist and Co-Director of the Michigan Performance Research Laboratory, U-M School of Kinesiology – Sensor technology and complex analytics to assess, monitor and predict injury in elite baseball pitchers
- **Steven Broglio, PhD**, Professor of Kinesiology and Adjunct Associate Professor of the U-M Departments of Physical Medicine and Rehabilitation and Neurology – Concussion diagnosis: Beyond “How many fingers am I holding up?”
- **Jenna Wiens, PhD**, Morris Wellman Development Assistant Professor of Computer Science and Engineering and Assistant Professor of Electrical Engineering and Computer Science, University of Michigan – A data-driven, non-invasive approach for monitoring hydration status in athletes

12:15-1:20 pm

Lunch and 2017 ESSI Research Poster Presentations

1:20-1:50 pm

**Cutting-edge Sport Science: 2018 ESSI-funded
Interdisciplinary Research**

- **Roland Graf, Dipl. Ing.**, Associate Professor of Art and Design, Penny W. Stamps School of Art and Design, University of Michigan – A projection-based augmented reality system for inclusive recreational sports and performance tracking
- **SangHyun Lee, PhD**, Associate Professor of Civil and Environmental Engineering, University of Michigan – Wearable-based physiological sensing to promote the elderly’s mobility
- **Xuwei Wang, PhD**, Assistant Research Scientist, Chemistry, University of Michigan – Wearable optical sensor platform for multiplexed sweat chemical monitoring



1:50-2:35 pm

Panel Discussion: Safety in Sport

Moderated by Sami Rifat, MD, Athletics Head Team Physician and Staff Physician and Adjunct Clinical Assistant Professor of Family Medicine, University of Michigan

- **Asheesh Bedi, MD** – Director of the Michigan Center for Human Athletic Medicine and Performance (MCHAMP); Harold W. and Helen L. Gehring Early Career Professor of Orthopaedic Surgery; U-M Athletics Orthopaedic Team Physician; Detroit Lions Team Physician; Orthopaedic Consultant for the NBA Players Association; and Consultant for the NFL and NHL Players Associations.
- **LaGwyn Durden, MS** – Director of Sports Medicine, NCAA
- **Thom Mayer, MD** – Medical Director, NFL Players Association
- **Kristen Schuyten, DPT** – Physical Therapy Clinical Specialist and Performing Arts Rehabilitation Program Coordinator, MedSport, University of Michigan; Physical Therapist for the U.S. Figure Skating Team

2:35-2:45 pm

Final Remarks by Ron Zernicke, PhD, DSc – Director of the Exercise & Sport Science Initiative; Professor of Orthopaedic Surgery, Professor of Kinesiology, and Professor of Biomedical Engineering, University of Michigan