

SYMPOSIUM AGENDA
Physical Stresses: Keeping Us “Alive and Well”
February 9, 2018

7:00 AM – 8:00 AM

Sign-In

Pre-conference survey

Light breakfast

Poster/vendor viewing

8:00 AM – 8:20 AM

General Introduction

8:00-8:05 OUHSC Provost **Jason R. Sanders**, MD, MBA

8:05-8:10 OUHSC Vice President for Research, **James J. Tomasek**, PhD

8:10-8:15 OUHSC College of Allied Health Dean **Allen Knehans**, PhD

8:15-8:20 Symposium Chair **Carol P. Dionne**, PT, DPT, PhD, OCS, Cert MDT

(Oral presentations judged by selected Committee members)

8:20 AM – 10:25 AM

Animal Model to Human Structure and Function

Moderator Timothy Griffin, PhD -- Introductions

Keynote **Vassilios I. Sikavitsas**, PhD, *The role of mechanical stimulation in musculoskeletal tissue engineering*

- **Albert Batushansky**, PhD, *Dietary fat alters exercise effects on the knee: Network-based whole transcriptome analysis of mouse cartilage and subchondral bone*
- **Liangzhong Xiang**, PhD, *X-ray-induced acoustic computed tomography (XACT) for bone and scaffold quality assessment*
- **Xioafeng Cai**, MD, PhD, *DOK3 modulates bone remodeling by negatively regulating osteoclastogenesis and positively regulating osteoblastogenesis*

(Brief questions and discussion within each speaker time allotted)

10:25 AM – 10:45 AM

Break *Refreshments and Poster/Vendor viewing in the Atrium*

10:45 AM – 1:05 PM

Human Structure and Function to Activity

Moderator Elizabeth Hile, PT, PhD, NCS, CLT – Introductions

Carol P. Dionne, PT, DPT, PhD, OCS, Cert MDT – Tribute to Bill Elam

Elam-Plowman Endowed Lecture

Keynote **Christopher M. Powers**, PT, PhD, FACSM, FAPTA, *A pathomechanical model of patellofemoral pain: The role of excessive joint stress*

- **Carol Dionne**, PT, DPT, PhD, MS, OCS, Cert MDT, *Can mechanotransduction explain the centralization phenomenon in patients with low back pain?*
- **Jonathan Day**, MA, CPO, *Maximum end-bearing after transtibial osteomyoplastic amputation*

- **William Ertl, MD**, *Medullary pressure measurements during femoral osteomyoplastic amputation reconstruction*

(Brief questions and discussion within each speaker time allotted)

1:05 PM – 2:45 PM

Manned Poster Sessions (Atrium)

(Poster presentations judged by selected Committee members)

- **Japneet Kaur, MS**, *Relationships between bone and muscle strength in young women from different racial/ethnic backgrounds -- A pilot study*
- **MaryBeth Humphrey, PhD**, *Role of innate immune signaling adapter protein DAP12 in high fat diet induced osteoarthritis in mice*
- **Erika Barboza Prado Lopes, PhD**, *Potential trade-off between pain reduction and instability-induced osteoarthritis pathology in TRPA1-deficient mice*
- **Shouan Zhu, PhD**, *Role of mitochondrial SIRT3 in chondrocyte metabolism and progenitor cell function for endogenous cartilage repair*

Vendor viewing

Lunch

Continuous demonstration of motion analysis system in the Center for Human Performance Measurement core facility – Room 3020

2:45 PM – 4:30 PM

Human Activity to Community Participation

Moderator Carol P. Dionne, PT, DPT, PhD, OCS, Cert MDT -- Introductions

Keynote **Shawn Roll, PhD, OTR/L, RMSKS, FAOTA**, *Bidirectional pathways among occupational performance, tissue morphology, and health*

- **Derek Crawford, PhD**, *High-intensity functional training: an exercise intervention to translate human activities into community participation*
- **Kimberly Veirs, MPT, ATC**, *Evaluation of a biomechanical multi-segment foot model for analyzing dance-specific movement*

(Brief questions and discussion within each speaker time allotted)

4:30 PM – 4:40 PM

Audience post-survey

4:40 PM – 5:00 PM

Closing Remarks by Symposium Chair

Announcement of awards -- 1 oral and 1 poster presentation in each classification

Pick up certificates of attendance upon receipt of surveys