Thursday, May 28

7:00 - 8:00
Registration and Breakfast

8:00 – 8:10
Opening Remarks
Joe Springer, Ph.D., Interim Director, SCoBIRC

Session One
Innovative Approaches for Diagnosis, Prognosis and Treatment of TBI

8:10 – 8:15
Introduction of Keynote Speaker
Chair: Kathryn Saatman, Ph.D.

8:15 – 9:15
Keynote Lecture: Brain-derived exosomes as a prognostic tool for traumatic brain injury
David Meaney, Ph.D. University of Pennsylvania

9:15 – 9:55
Extracellular vesicle biomarkers for Alzheimer’s and traumatic brain injury
Dimitrios Kapogiannis, M.D. National Institute of Aging

9:55 – 10:35
Preclinical studies on the use of targeted antibody-antioxidant enzyme conjugates for vascular protection in TBI-associated neuroinflammation
Servio Ramirez, Ph.D. Temple University

10:35 – 11:00
Poster Session and Coffee Break
### Session Two  
**SCI Pathophysiology – Influences of Gut Microbiome and Spinal Learning**

Chair: *Sasha Rabchevsky, Ph.D.*

#### 11:00 – 11:40
Gut microbiome is a disease-modifying factor after spinal cord injury  
*Kristina Kigerl, Ph.D. Ohio State University*

#### 11:40 – 12:20
The pain of polytrauma: How pain input after SCI can increase tissue loss and undermine long-term recovery  
*James Grau, Ph.D. Texas A&M University*

#### 12:20 – 1:20
**Lunch**, sponsored by the Craig H. Neilsen Foundation

### Session Three  
**Neuroinflammation in TBI and SCI**

Chair: *Edward Hall, Ph.D.*

#### 1:20 – 2:00
Cell-specific control of TBI-induced neuroinflammation by Eph signaling  
*Michelle Theus, Ph.D., Virginia-Maryland College of Veterinary Medicine*

#### 2:00 – 2:40
Targeting neuroinflammation in SCI  
*John Gensel, Ph.D., University of Kentucky*

#### 2:40 – 3:40
**Poster Session and Refreshments**

### Session Four  
**Emerging Topics**

Chair: *James Shaughnessy, DMD*

#### 3:40 – 3:55
University of Kentucky trainee, TBA

#### 3:55-4:10
University of Louisville trainee, TBA

#### 4:10-4:25
University of Kentucky trainee, TBA

#### 4:25-4:40
University of Louisville trainee, TBA

#### 4:40 – 4:50
Comments from the Chairman of Kentucky Spinal Cord and Head Injury Research Trust

#### 4:50 – 5:40
**Featured Speaker**  
Advocacy: Setting the family table to talk politics  
*Matthew Rodreick, Unite 2 Fight Paralysis*

#### 5:45 – 6:45
**Poster Viewing and Cocktail Hour**
Friday, May 29

7:00 - 8:00  Registration and Breakfast

Session Five  Multidisciplinary approaches for SCI therapeutics

Chair: Samir Patel, Ph.D.

8:00 – 8:40  Neural precursor cell transplantation for cervical spinal cord repair

Michael Lane, Ph.D. Drexel University

8:40 – 9:20  Sensory cortical control of movement in health and disease

Kajana Satkunendrarajah, Ph.D. Medical College of Wisconsin

9:20 – 10:00  Synthetic materials and stem cell-based multimodal approaches to investigating recovery neurobiology of injured spinal cord

Ted Teng, Ph.D. Harvard University, Spaulding Rehabilitation Hospital Network, and Brigham & Women's Hospital

10:00 – 10:30  Coffee Break

Session Six  Vascular damage/repair following TBI

Chair: Lei Chen, M.D., Ph.D.

10:30 – 11:10  Impairments in cerebral blood flow regulation following mild traumatic brain injury

Sushmita Purkayastha, Ph.D. Southern Methodist University

11:10 – 11:50  Vascular damage and repair in TBI

Andre Obenaus, Ph.D. University of California, Irvine

11:50 – 12:30  Immunological mechanisms underlying damage and repair of the injured brain

Dorian McGavern, Ph.D., National Institute of Neurological Disorders and Stroke

12:30 – 12:40  Closing Remarks

James Geddes, Ph.D., Vice Dean of Research, College of Medicine

Boxed lunches will be available for pick up at the close of the meeting