

## All Abstracts

### **R2Play: A multidomain return-to-play assessment and integrative rehabilitation tool for youth athletes with concussion**

Josh Shore,<sup>1,2</sup> Danielle DuPlessis,<sup>1</sup> Emily Lam,<sup>1</sup> Fanny Hotze,<sup>1</sup> Ajmal Khan,<sup>1</sup> Stephanie McFarland,<sup>1</sup> Andrea Hickling,<sup>1,3</sup> Michael Hutchinson,<sup>4</sup> F. Virginia Wright,<sup>1,2,5</sup> Nick Reed,<sup>1,2,3</sup> Elaine Biddiss,<sup>1,2,6</sup> Shannon Scratch<sup>1,2</sup>

**Alignment:** *Key issues and advances in physical interventions (e.g., exercise, sleep, motor control and learning and mental health)*

### **Move&Connect: A group-based intervention for youth with persistent post-concussion symptoms and their caregivers**

Kylie D. Mallory<sup>1</sup>, Hiba Al-Hakeem<sup>1,2</sup>, Andrew Lovell<sup>1</sup>, Andrea Hickling<sup>1,3</sup> & Shannon E. Scratch<sup>1,4,5</sup>

**Alignment:** *Physical interventions for concussion management*

### **A Community Support Network Intervention for Improving Quality of Life of Individuals with Mild Traumatic Brain Injury- Preliminary Findings of the Feasibility Study**

Shambhu P Adhikari (School of Health and Exercise Sciences, University of British Columbia, Kelowna, BC, Canada), Karen Mason (Supporting Survivors of Abuse and Brain Injury Through Research (SOAR) Project, Kelowna, BC, Canada), Paul van Donkelaar (School of Health and Exercise Sciences, University of British Columbia, Kelowna, BC, Canada)

**Theme:** Physical interventions for concussion management

### **Using EEG to map neural detours in the brain: sex based considerations of concussion**

Julianne McLeod, Sahar Sattari, Shelina Babul, Liisa Galea, Naznin Virji-Babul

Findings from this study will contribute to our understanding of the neurobiological underpinnings of concussion injuries in females and may help to inform sex-specific diagnostic and rehabilitative intervention strategies that can be applied to pediatric, adolescent, and adult populations.

### **Novel Concussion Rehabilitation Strategy: Supine Cycling with Lower Body Negative Pressure and Head-Up Tilt to Reduce Elevations in Cerebral Blood Velocity**

Joel S. Burma, Jina Seok, Nathan E. Johnson, Jonathan D. Smirl

**Influence of age, sex, sport-participation, and concussion history on brain derived neurotrophic factor (BDNF) in healthy adolescent athletes**

Nik Josafatow<sup>1,4,5,7</sup>, BSc., Jason Tabor<sup>1,4,5,7</sup>, MSc., Linden Penner<sup>1,4,5</sup>, MSc., Jean-Michel Galarneau<sup>1,5</sup>, PhD., Douglas Fraser<sup>3</sup>, PhD., Carolyn Emery<sup>1,4-6,8,9</sup>, PhD., Cheryl Wellington<sup>2</sup>, PhD., Chantel T. Debert<sup>4,6,7</sup>, MD

**Alignments:** Recent advances in child and youth brain development; Sex, gender and ethnicity considerations for rehabilitation and brain recovery.