Sports Neuropsychology: Dr. Catherine McGill is a pediatric neuropsychologist at McGill Neuropsychology. She is an active consultant for the Virginia Concussion Initiative with George Mason University. She previously held a faculty appointment in the Division of Neuropsychology at the Children's National Medical Center and was an Assistant Professor at The George Washington University School of Medicine in Washington, DC. Dr. McGill has experience conducting educational seminars, writing concussion policies, and teaming up with local and national community partners to promote safety in youth sports. In addition to these roles. she has served in multiple leadership capacities within the Sports Neuropsychology Society.

**Keyword 1:** forensic neuropsychology **Keyword 2:** sports-related neuropsychology **Keyword 3:** neuropsychological assessment

## Symposium 06: Perioperative Neurocognitive Disorders With Considerations for Alzheimer's Disease and Related Dementias

2:15 - 3:45pm Thursday, 2nd February, 2023 Town & Country Ballroom B

## Chair

Catherine Price University of Florida, Gainesville, USA

## **Summary Abstract:**

Low- and high-risk surgical procedures are performed annually on more than half a million patients aged 65 and older. Yet, at least 20-35% of older patients undergoing surgery have undiagnosed signs of a mild to major neurocognitive disorder. These facts are alarming as older age, and preoperative memory/cognitive/affective vulnerabilities are significant predictors of postoperative cognitive complications such as delirium, cognitive decline, and mortality. Given the expected rate increase of neurodegenerative disorders in the populous, perioperative health care systems will

face more significant numbers of individuals with undiagnosed Alzheimer's disease and related dementias (ADRD) needing procedures with anesthesia due to severe health-related conditions (e.g., cardiac) or requesting surgeries for quality of life improvement (e.g., joint replacement). Through this symposium, attendees will learn from experts about the urgency of appreciating Perioperative Cognitive Disorders and the need for evidence-based perioperative ADRD assessment and intervention methods. Symposium speakers represent the International Society to Advance Alzheimer's Research and Treatment's "Perioperative Cognition and Delirium" Professional Interest Area. Lisbeth Evered, Ph.D., University of Melbourne, Australia, will begin the symposium by discussing the nomenclature for Perioperative Neurocognitive Disorders and the need to include neuropsychologists as part of the multidisciplinary diagnostic team. Robert Whittington, MD, University of California, Los Angeles, will present a bench-to-beside review of how tau protein is altered by perioperative factors and its potential relationship to cognition impairment after surgery and anesthesia. Miles Berger, M.D., Ph.D., Duke University, will present his team's federally funded research showing how anesthesia is a stress test for the brain and the potential implications for incorporating intraoperative EEG monitoring into routine care. Kristin Hamlet, Ph.D., University of Florida, will round out the symposium by presenting a novel perioperative care environment where neuropsychologists identify at-risk undiagnosed ADRD patients before surgery for multidisciplinary care interventions. She will also highlight a cognitive "rescue" multidisciplinary intervention case. Attendees will leave the symposium with an improved understanding of Perioperative Neurocognitive Disorders and how neuropsychologists can work with other disciplines to advance evidencebased perioperative care for at-risk older adults electing surgery with anesthesia.

Keyword 1: aging disorders

**Keyword 2:** mild cognitive impairment

Keyword 3: delirium