

beneficial effects. Cortical morphometric, white matter connectivity and functional brain changes in bilinguals represent the neural basis for its effect on cognitive reserve/resilience. In this presentation, insights from studies that have explored the role of bi/multilingualism in impacting cognitive resilience against dementia and stroke will be discussed in the context of global research.

Upon conclusion of this course, learners will be able to:

1. Describe the impact of bilingualism on age at onset and cognitive manifestations of dementia and stroke
2. Discuss the mechanisms that underlie the potentially protective effects of bilingualism in dementia and stroke
3. Describe the role of bi/multilingualism on cognitive reserve/resilience in disorders of the brain

### **CE Workshop 03: Stroke in the Developing Brain: Mechanisms, Outcomes, and Intervention**

**Presenter: Robyn Westmacott**

9:00am - 12:00pm

Wednesday, 1st February, 2023

Town & Country Ballroom D

Abstract & Learning Objectives:

Over the past 10-15 years, significant progress has been made in the diagnosis and treatment of pediatric stroke. Accordingly, the focus of much research has turned to understanding factors that determine neurological and neuropsychological outcomes in this population. This Continuing Education (CE) course will start by defining key terms in the field of pediatric stroke and reviewing current understanding of epidemiology, pathophysiology, diagnosis, and medical treatment. Next, we will review recent neuropsychological literature on cognitive outcomes following pediatric stroke, highlighting the vulnerability of the developing brain, the long-term deficits that often result from early disruption of brain function and subsequent brain development, and the significant variability in outcomes seen across individuals.

Heterogeneity in outcomes has been linked to a range of clinical and demographic factors, including those related to the brain (e.g., stroke

type, lesion location and size, adaptive and maladaptive patterns of reorganization), the child (e.g., age at stroke, age at assessment, comorbid neurological conditions) and the environment (family stress, parent mental health, educational support). Multi-disciplinary approaches to intervention will also be discussed. Finally, directions for future research will also be outlined, as we are just starting to understand how these factors interact to impact neurocognitive outcome and resiliency following pediatric stroke.

Upon conclusion of this course, learners will be able to:

1. Describe the epidemiology, pathophysiology, and neurological outcomes associated with stroke in infants and children
2. Illustrate the variability in neuropsychological outcomes after pediatric stroke and highlight important determining factors of these outcomes
3. Apply current research into outcomes and treatments to neuropsychological practice

### **INS Business Meeting**

12:00 - 12:55pm

Wednesday, 1st February, 2023

Town & Country Ballroom B

### **CE Workshop 04: Cancer Survivorship Across the Lifespan: Mechanisms and Modifiable Factors**

**Presenter: Kevin Krull**

1:00 - 4:00pm

Wednesday, 1st February, 2023

Town & Country Ballroom B

Abstract & Learning Objectives:

Long-term survivors of pediatric cancer are at elevated risk for cognitive impairment, which manifests in different ways at different times throughout survivorship. Although some cognitive impairment may result from the cancer itself, as is the case with a brain tumor, impairment has been consistently associated with exposure to CNS-directed therapies like neurosurgery, cranial irradiation, intrathecal