## Final Program Fifty First Annual Meeting International Neuropsychological Society

February 1-4, 2023 San Diego, California, USA

CE Workshop 01: Mindfulness Meditation Induced Analgesia Engages Multiple Unique Brain Mechanisms

Presenter: Fadel Zeidan

9:00am - 12:00pm Wednesday, 1st February, 2023 Town & Country Ballroom B

Abstract & Learning Objectives:

For millenniums, mindfulness was believed to diminish pain by reducing the influence of selfappraisals of noxious sensations. Today, mindfulness meditation is a highly popular and effective pain therapy that is believed to engage multiple, nonplacebo-related mechanisms to attenuate pain. Recent evidence suggests that mindfulness meditation-induced pain relief is associated with the engagement of unique cortico-thalamo-cortical nociceptive filtering mechanisms. The proposed talk will provide a succinct, yet comprehensive delineation demonstrating that brief mindfulness-based mental training significantly reduces acutely evoked chronic low back pain through nonopioidergic mechanisms. Recent findings indicate that mindfulness-based pain relief, after brief mental training, can significantly uncouple self-referential from nociceptive neural mechanisms, an important finding for the millions of individuals seeking a fast-acting and non-pharmacologic pain treatment. Upon conclusion of this course, learners will be able to:

- 1. Recognize if mindfulness reduces pain
- 2. Describe brain mechanisms supporting mindfulness-based pain relief

3. List the physiological systems supporting mindfulness

CE Workshop 02: Bi/Multilingualism and its Impact on Stroke/Neurodegenerative Disease

Presenter: Suvarna Alladi

9:00am - 12:00pm Wednesday, 1st February, 2023 Town & Country Ballroom C

Abstract & Learning Objectives: Modifying risk factors by using effective cognitive strategies across the life-course may prevent or delay up to 40% of dementias through enhancing reserve/resilience. Reserve/Resilience is an emerging concept and refers to the ability of the brain to cope with neuropathology and neurodegeneration. Emerging evidence suggests that bi/multilingualism is associated with cognitive advantages and improves resilience against dementia, stroke and other cognitive disorders. Seven thousand languages are spoken across the world and speaking a second/third or more languages is a natural phenomenon. Further, with globalization, societies are becoming increasingly linguistically diverse and half of the world's population is bi/multilingual. Exploring beneficial effects of bi/multilingualism will have an impact on dementia risk reduction and recovery from brain injury. Bi/Multilingualism has been demonstrated to delay age at onset of dementia and also improve cognitive and language recovery after stroke. Advantages to executive function are thought to underlie its