

Thursday 16th August 2012 Day Theme: Neurological and Musculoskeletal Conditions

Plenary Keynotes

PREVENTION AND MANAGEMENT OF NEUROLOGICAL CONDITIONS IN OLD AGE THROUGH PHYSICAL ACTIVITY AND EXERCISE

Studenski, Stephanie

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Neurological impairments are a major contributor to problems of gait and balance in older people. Whether due to well-characterized conditions such as stroke or Parkinson's disease, or to more recently recognized conditions such as leukoencephalopathy or age related dopamine deficiency, there are numerous emerging opportunities to promote improved function through physical activity. The key to successful interventions may be to go beyond traditional exercise that focuses on endurance and strength, to exercise that incorporates principles of motor learning.

NEW TECHNOLOGIES TO ENGAGE OLDER ADULTS IN PHYSICAL ACTIVITY

Smith, Stuart

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Over the past few decades, there has been a wealth of published scientific evidence for the physical, cognitive, and social health-related benefits of exercise and increasing physical activity (PA), especially in older adults. Strength, mobility, aerobic capacity, energy, anxiety, depression, and reduction in fall risk in older populations have been shown to improve following increased PA interventions. While numerous studies have demonstrated the health-related benefits of PA, adherence to PA programs is often disappointing. Barriers to adherence may include lack of interest in the program, low outcomes expectation, the weather, or even a fear of falling during exercise. In our group at Neuroscience Research Australia, we are examining how videogame technology can be used to increase compliance with exercise. In particular we are assessing the effects of exercise-based videogames to reduce the risk of falling, a major barrier to continued independence.