from the COSMOS study (COmmunication, Systematic assessment and treatment of pain, Medication review, Organization of activities, and Safety). Moreover, in our talk we will present early findings on the visualization of systematic pain medication review on activity levels in nursing home patients with dementia

## S12: Recent advances in therapies for late-life neuropsychiatric disorder

*Symposium Overview:*

This international symposium combining experts from Canada, Australia and the USA and supported by the American Association for Geriatric Psychiatry will present an update on the recent advances in therapeutic interventions for late life mood and cognitive disorders, including late life depression, anxiety and apathy associated with dementia, and preventive strategies including mind-body interventions. Four leaders of the field will present the summary of novel studies: starting with Dr. Benoit Mulsant (CA) presenting the results of the recently completed OPTIMUM study of novel strategies optimizing treatment of late-life treatment resistant depression. He will be followed by Dr. Krista Lanctot' (CA) update on novel therapies for apathy associated with Alzheimer's disease, and Dr Nancy Pachana (AU) will present on non-pharmacological approaches to treatment of anxiety associated with neurodegenerative disorders. Finally, Dr. Helen Lavretsky (USA) will present on the recent studies of mind-body therapies used to treat and prevent late life depression and cognitive decline, along with the discussion of the underlying neurobiological mechanisms. The panel will conclude with a brief discussion of future directions in the development of therapeutic interventions.

Treatment-resistant depression in late life has been understudied and is lacking evidence supporting augmentation or switching strategies. Recently completed OPTIMUM multi-site study (funded by the PCORI) sought to compare effectiveness of augmentation strategies (bupropion or aripiprazole) to switch to bupropion, in the first step of 1-week acute treatment followed by randomization into the 2$^{nd}$ step of augmentation with Lithium or switch to nortriptyline. The augmentation strategies in the first step produced the most robust response compared to switching, and did not differ in the 2nd step. Primary outcomes included remission rates and wellbeing measures. A discussion of future directions will be provided at the end of this presentation.

In those with Alzheimer's disease, apathy is common and associated with decreased quality of life, increased risk of decline and increased mortality. As such, apathy is increasingly recognized as an important treatment target. Recent advances in diagnosis and treatment will be reviewed.
In this presentation, several methodological issues will be discussed, such the importance and prevalence of apathy in Alzheimer's disease (AD);  current diagnostic criteria for apathy in neurocognitive disorders, and will present the  results of recent pharmacologic interventions for apathy in AD.

In this presentation, new focused and innovative treatments for anxiety in persons with Alzheimer's and Parkinson's disease with co-morbid anxiety will be discussed. Anxiety is common in Alzheimer's Disease and Parkinson's disease and contributes to increased disability and poorer quality of life. Yet only a small fraction of such patients received any form of treatment for mental health issues. Non-pharmacological approaches to address anxiety are advantageous in these populations. Research on tailored CBT and innovations such as virtual reality approaches for these groups will be discussed.

Standard pharmacological therapies for treatment of late life depression offer limited efficacy with the downside of adverse events and drug-drug  interaction. Novel strategies are needed for more effective and safe treatment and prevention strategies for mood and cognitive disorders in late life. This presentation will focus on the recently completed studies of Tai Chi for treatment of late life depression, and yoga for prevention of cognitive decline in older women at risk for Alzheimer's disease. Neural and peripheral biomarkers of treatment response will be described. Future directions in mind-body therapies research will be outlined.