

1. Date, place, and title of the Symposium

17th European Congress of Clinical Neurophysiology

5-8 June 2019 Warsaw



June 5th, 2019; time: 02:30 – 04:00 pm

Warsaw Hotel Marriott

<http://eccn2019.com>

Neurodegenerative dementing disorders, brain over-excitation, and EEG signatures: preclinical and clinical evidence

2. Abstract

Temporal lobe Epilepsy and Alzheimer's disease (AD) show similarities of high clinical interest. In AD patients, the incidence of convulsive seizures is 10 times higher than healthy controls and 87 times more frequent with "early-onset" disease manifestation. Furthermore, cognitive decline starts 5.5 years earlier in AD patients with epilepsy than AD controls. Moreover, hippocampus hyperactivity is a risk factor for mild cognitive impairment (MCI) and rationalized an antiepileptic preventive treatment trial in MCI using Levetiracetam (NCT01044758).

In the Symposium, the speakers will discuss the most promising evidence, concepts, phenomena, paradigms, and exploring neurophysiological techniques for understanding the neural basis of over-excitation of cerebral cortex and networks in AD and Lewy body disease (LBD).

3. Scientific program

Organizer-Chair: Prof. Claudio Babiloni (Sapienza University of Rome, Italy; Electrophysiology Professional Interest Area of Alzheimer's Association, ISTAART, and Global Brain Consortium)

Talk 1. Prof. Heikki Tanila, University of Eastern Finland, Kuopio, Finland:

"Characterization of epileptic spiking associated with brain amyloidosis in APP/PS1 mice as new readouts in preclinical treatment trials." The Speaker will discuss the EEG and local field potential markers of cortical over-excitation in mouse models of AD

Talk 2. Dr. Claudio Del Percio, Sapienza University of Rome, Italy: **"Effects of Ab42 in the brain and abnormal cortical excitability as revealed by cortical EEG biomarkers in patients with preclinical and prodromal Alzheimer's disease."** The Speaker will discuss the EEG markers of cortical over-excitation and epileptiform-like activities in quiet vigilance in AD patients

Talk 3. Prof. Laura Bonanni, University of Chieti-Pescara, Italy: **"Effects of dopamine depletion in the brain and abnormal cortical excitability as revealed by cortical EEG biomarkers in patients with Lewy Body diseases."** The Speaker will discuss the EEG markers of fluctuation of cortical over-excitation in quiet vigilance in LBD patients