Special Track Session 11
Neuroimaging Committee

Challenge the Expert Session
Tuesday, September 12, 15:00 – 16:30

Session Title
Amyloid or Tau PET - What First in Alzheimer Dementia Patients? - Germany versus Italy

Moderators
Nelleke Tolboom (**Utrecht**, The Netherlands)
Javier Arbizu (Pamplona, Spain)

Expert 1
Henryk Barthel (Leipzig, Germany) - **Tau PET first in the AD flow-chart**

Challengers: Team Germany
Two cases supporting the value of TAU PET as first biomarker in the AD flow-chart
Konstantin Messerschmidt (Leipzig, Germany)
Johannes Gnörich (Munich, Germany)

Expert 2
Silvia Morbelli (Genoa, Italy) - **Amyloid PET first in the AD flow-chart**

Challengers: Team Italy
Two cases supporting the value of amyloid PET as first biomarker in the AD flow-chart
Giulia Polverari (Turin, Italy)
Anna Lisa Martini (Prato, Italy)

Educational Objectives
1. To discuss the present role of TAU and Amyloid PET in Alzheimer's disease
2. To discuss the sequence for the use biomarkers in AD
3. To provide practical examples on the different potential added value of amyloid and TAU PET in the AD clinical setting

Summary
Alzheimer disease (AD) is defined by the presence of cerebral amyloid-β plaques and tau neurofibrillary tangles. The A/T/(N) biomarker classification system identifies 3 classes of AD biomarkers: amyloid-β, tau, and neurodegeneration, in which amyloid-β and tau biomarkers are specific to AD. Amyloid-β biomarkers include amyloid positron emission tomography (PET) as well as cerebrospinal fluid (CSF) and plasma concentrations of amyloid-β. Tau biomarkers include TAU PET, as well as soluble phosphorylated tau (p-tau) in the CSF and plasma. Because of their specificity, amyloid-β and tau biomarkers are increasingly used in AD diagnosis and as inclusion criteria for disease-modifying clinical trials.

While at the moment TAU PET is not available for clinical use in Europe, there's a wide discussion on the different added value of amyloid and TAU PET both in clinical setting and in the future in clinical trials. This debate is further enriched by the need to embed the indications of both amyloid and TAU PET with the other potentially available AD biomarkers such as CSF and plasma biomarkers. In the present "Challenge the expert session" two teams will independently support the value of amyloid or TAU PET as first biomarker in the AD flowchart.

Key Words
Alzheimer's Disease, Amyloid PET, TAU PET