

**Learning & Improve Professional Skills (LIPS) Track – Session 6**

Neuroimaging Committee

**Monday, October 17, 09:45-11:15**

**Session Title**

**Black and White or Fifty Shades of Grey? Beyond Binary Reading of Brain PET Images**

**Chairpersons**

**Valentina Garibotto** (Geneva, Switzerland)

**Eric Guedj** (Marseille, France)

**Programme**

09:45 - 10:10 **Silvia Morbelli** (Genoa, Italy): The A/T/N Model Through Imaging Biomarkers in a Memory Clinic

10:10 - 10:35 **Nelleke Tolboom** (Utrecht, Netherlands): To Be or Not to Be? An AMY PET Challenge

10:35 - 11:00 **Alexander Drzezga** (Cologne, Germany): To Be or Not to Be? A TAU PET Challenge

11:00 - 11:15 Discussion

**Educational Objectives**

1. To understand the relevance of A/T/N model for clinical nuclear medicine
2. To learn about reading criteria and challenges of binary reading of amyloid PET images
3. To learn about reading criteria and challenges of binary reading of TAU PET images

**Summary**

The progression rates of Alzheimer's disease (AD) are variable and dynamic, yet the mechanisms that contribute to heterogeneity in progression rates remain ill-understood. The role of synergies in pathological processes reflected by biomarkers for amyloid-beta ('A'), tau ('T'), and neurodegeneration ('N') in progression along the AD continuum is not fully understood. Although the A/T/N model is a research framework proposed to investigate AD pathological bases, this system has been proposed also to classify patients in the clinical setting. Imaging and non-imaging biomarkers have a central role in this model; however the application of this system on clinical populations is still limited. The aim of this session will be to describe the A/T/N status through imaging biomarkers in memory clinic patients through representative examples. As the proposed model implies a binary reading of amyloid and tau PET images, criteria and challenges of dichotomic classification of amyloid and tau PET will be also discussed through interactive cases.

**Key Words**

Alzheimer's Disease; Amyloid PET; Tau PET