Session Title
PET/CT and PET/MRI in Patients with Autoimmune Disorders

Chairperson
Olivier Gheysens (Brussels, Belgium)

Programme
24 min Raphaele Seror (Paris, France / EULAR): Autoimmune Rheumatic Disorders - The Rheumatologist’s Questions
24 min Zoltán Szekanecz (Debrecen, Hungary / EULAR): Autoimmune Paraneoplastic Syndromes - The Clinician’s Point of View
24 min Lucia Leccisotti (Rome, Italy): The Current Role of FDG Imaging in Autoimmune Disorders
15 min Christian Schmidkonz (Erlangen, Germany): The Role of Novel Radiotracers - FAPI Imaging in Systemic Sclerosis and IgG4-Related Disease
3 min Session Summary by Chairperson

Educational Objectives
1. To summarise what the rheumatologists expect from PET imaging in the field of autoimmune disorders.
2. To describe the current role of hybrid imaging with FDG in patients with autoimmune disorders.
3. To investigate the role of novel radiopharmaceuticals as the FAPI in systemic sclerosis and IgG4-related disease.

Summary
Autoimmune rheumatic diseases (ARDs) are a heterogeneous group of disorders associated with substantial morbidity and mortality. In recent years, the role of functional imaging in early diagnosis and monitoring of therapy in ARDs is growing. Hybrid imaging with FDG allows the sensitive detection of active lesions, the extent and severity of disease as well as the early monitoring of response to treatment. Recently, the role of novel radiopharmaceuticals as the FAPI seems to be very promising in this field.

Autoimmune paraneoplastic syndromes (APSs) represent a group of autoimmune diseases associated with cancer. PET imaging is a valuable tool for malignancy screening in patients with suspected APS when all standard assessments have been negative. Furthermore, PET imaging can assess the extent of the functional abnormalities in paraneoplastic neurological syndromes as well as in paraneoplastic rheumatic diseases.

This Joint Symposium illustrates on the one hand the most relevant clinical aspects of rheumatic and paraneoplastic autoimmune diseases, as well as what rheumatologists expect from imaging when referring these patients to PET/CT or PET/MRI. On the other hand, the nuclear physicians describe the current role of hybrid imaging with FDG as well as the initial experience and the future prospects of FAPI imaging in this field.

Key Words
Autoimmune disorders; FAPI; FDG; paraneoplastic syndrome; PET/CT; PET/MRI