

Barcelona, Spain

Annual Congress of the
European Association of Nuclear Medicine

October 12 – 16, 2019
Barcelona, Spain

Joint Symposium 15

Oncology & Theranostics Committee / European Society for Medical Oncology (ESMO)

Monday, October 14, 16:30-18:00

Session Title

Immunological Landscape in Solid Tumours and its Implications in Response to Immunotherapy

Chairpersons

John Haanen (Amsterdam, Netherlands / ESMO)

Egesta Lopci (Milan, Italy)

Programme

16:30 - 16:50 John Haanen (Amsterdam, Netherlands / ESMO): Prognostic and Predictive Role of Tumour Immune Landscape

16:50 - 17:10 Jerome Galon (Paris, France): Immunoscore and its Introduction in Clinical Practice

17:10 - 17:30 Enrico Lugli (Rozzano, Italy): Advanced Techniques for the Assessment of Tumour Immunological Profile

17:30 - 17:50 Egesta Lopci (Milan, Italy): Immune-PET, Tumour Metabolism and Patterns of Response to Immunotherapy

17:50 - 18:00 Discussion

Educational Objectives

1. Learn about the significance of tumor immunity and immune response in oncology.
2. Become familiar with current standards and advanced techniques for the characterization of immune landscape in cancer.
3. Get an insight of potential applications of present and future PET radiopharmaceuticals in the evaluation of solid tumors treated with immunotherapy.

Summary

It is nowadays recognized that immune cells in the tumor microenvironment can modulate the development and effect the prognosis of different cancer types. In fact, tumor progression and recurrence are reported to be influenced not only by genetic mutations but also by determinate tumor immune landscape. Consequently, major efforts have been made in the last years to investigate the characteristics of tumor microenvironment and develop techniques able to provide reliable information on the quality of the immune landscape, particularly in the context of immunotherapy with checkpoint inhibitors. The implementation of the Immunoscore® as an in vitro diagnostic test predicting the risk of relapse in colon cancer patients, represents an example of these latest developments and their potential impact on cancer management.

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In light of the consolidated mutual interaction of metabolic and immune pathways, FDG PET could provide useful information on the metabolic state of the tumor microenvironment, along with the possibility of assessing treatment response. On the other hand, the rapidly evolving field of tumor immunology and the clinical success of immunotherapy with antibodies promoting checkpoint blockade has led to the development of antibodies and antibody fragments as molecular imaging agents. In this context, immuno-PET has the potential to find and engage specific targets in vivo for an optimal stratification of patients before and during immunotherapy.

Key Words

Tumor immunity; Immunoscore; Predictive factors; Prognostic factors; Immunotherapy; Response assessment.