



Special Track Session 10

Translational Molecular Imaging and Therapy Committee

Debate

Tuesday, October 22, 09:45 - 11:15

Session Title

The Contribution of Radiobiology to Clinical Practice: As Many Interpretations As There Are EANM Members

Moderators

Ann-Christin Eder (Freiburg, Germany)

Jean-Pierre Pouget (Montpellier, France)

Speaker to be announced

Life is linear or linear quadratic

Stefano Fanti (Bologna, Italy)

Clinical response is more than tumor absorbed dose; dosimetry guided TRT needs to be based on sound clinical evidence

Educational Objectives

1. Role of dosimetry in understanding the radiobiology of TRT
2. Understanding clinical response from a radiobiological point of view
3. Understanding how to include radiobiology and dosimetry in treatment planning

Summary

The aim is to demonstrate the complexity of the radiobiological response to TRT. There will be two or even three schools of thought. The first is that dosimetry is not useful, is time-consuming and in any case should not be systematized. The second school of thought is that only knowledge of the dose absorbed by the organs can predict the effectiveness of the response/toxicity of the treatment. The last school of thought believes that while dose is an indisputable parameter, it alone does not explain all the biological effects of TRT and a more specific radiobiology needs to be developed that takes the targeting by TRT into account.

Key Words

Radiobiology; dosimetry; treatment planning; dose-response; combinations