CME 12
Dosimetry Committee
Tuesday, October 20, 16:30-18:00

Session Title
Alpha Particle Therapy Without Imaging - Options for Dosimetry, the Alpha and Omega

Chairpersons
Katarina Sjögreen Gleisner (Lund, Sweden)
Pablo Minguez Gabiña (Barakaldo, Spain)

Programme
16:30 - 17:00 Lisa Bodei (New York, United States of America): Surrogate Imaging and Dosimetry with PET / SPECT
17:00 - 17:30 Clemens Kratochwil (Heidelberg, Germany): Ac-225 Therapy, What Do We See and What Can We Measure?
17:30 - 18:00 Iain Murray (London, United Kingdom): Ra-223 and Th-227 Just Dump it in the Body?

Educational Objectives
1. Identify the potential for the use of theranostics in treatments with alpha-particle emitters.
2. Identify the possibility of image acquisition for treatments with Ac-225.
3. Identify the possibility of image acquisition for treatments with Ra-223 and Th-227.
4. Give a general overview of theranostics in treatments with alpha particle emitters.

Summary
The development of new radiopharmaceuticals that include alpha-particle emitters has increased the treatment options for patients with metastatic castration resistant prostate cancer. The most used alpha-particle emitter, Ra-223, has been shown to prolong overall survival and improve life quality. Still under research, other radiopharmaceuticals with alpha-particle emitters such as Ac-225 and Th-227 are showing promising results. In this session, the potential for the use of theranostics in the treatment of metastatic castration resistant prostate cancer with alpha-particle emitters will be illustrated. Moreover, the possibility of image acquisition of those alpha-particle emitters (Ra-223, Ac-225 and Th-227) in order to perform a quantitative analysis of the images will be addressed.

Key Words
Theranostics, Alpha-particle emitters