CTE 2  
Technologist + Paediatrics Committee  
**Thursday, October 22, 16:35-18:05**  

**Session Title**  
Update in Paediatric Imaging  

**Chairperson**  
Ana Resende Geão (Lisbon, Portugal)  

**Programme**  
16:35 - 17:04 Andrea Santos (Lisbon, Portugal): Technical Perspective and Challenges in Paediatric Imaging  
17:04 - 17:33 Pinar Ozgen Kiratli (Ankara, Turkey): Nuclear Medicine in Paediatric Tumours - Past, Present and the Future  
17:33 - 18:02 Carmela Nappi (Naples, Italy): PET/MR in Paediatric Imaging  

**Educational Objectives**  
1. Identify the skills and challenges of the nuclear medicine technologist in nuclear medicine paediatric imaging  
2. Define the technical requirements of image optimization  
3. Understand the clinical applications of nuclear medicine in paediatric tumor imaging and the usefulness of the techniques  
4. Know the state of art of the PET/MRI in paediatric imaging and its future perspective  

**Summary**  
In the last years, diagnostic imaging in paediatrics has increased in the number of exams, but also in its relevance to the clinical pathways of the main childhood diseases. Despite this, the paediatric diagnostic imaging is a field characterized by many challenges. The statement used also by the World Health Organization “Children are not little adults” perfectly fits to nuclear medicine imaging field. There are significant anatomical differences between children and adults, different diseases, with peculiar characteristics, moreover, children are extremely susceptible to the effects of ionizing radiation. Therefore, those who work in paediatrics must be aware of the continuous innovations in imaging techniques.  
The need of a tailored nuclear medicine imaging for the pediatric patient was clear since the beginning of this field. The first paediatric nuclear imaging was reported in 1955, few years later was developed a gamma camera suited for pediatric imaging. Fifty-five years have passed from that first experience and the nuclear medicine has achieved many goals in paediatric imaging field.  
In this session we will consider the different diagnostic techniques in the light of their current and potential future applications.  
The first talk is focused on the role of the Nuclear Medicine Technologists (NMT) in general pediatric nuclear medicine procedures. The NMT needs to adapt and customize the exam for the single
paediatric patient. A NMT must develop a specific set of skills and knowledge, that consider from communication skills to the paediatric specific devices manipulation.

The following presentation defines the clinical applications of the nuclear medicine in the main pediatric tumors, from conventional imaging to the last developments in equipments, tools and radiopharmaceuticals.

The last talk describes the state of art of PET/MRI in paediatric imaging, the current techniques and applications and new perspectives related.

Key Words
NMT, paediatrics, nuclear medicine, update