



Special Track Session 8

Physics Committee

Debate

Monday, September 11, 17:15 – 18:15

Session Title

AI in Nuclear Medicine: fear or embrace?

Moderators

Barbara Katharine Geist (Vienna, Austria)

Kuangyu Shi (Bern, Switzerland)

Point of View: Embrace Artificial Intelligence

Martina Sollini (Milan, Italy)

Supporting: **Dimitris Visvikis** (Brest, France)

Point of View: Beware of Artificial Intelligence

Gerald Gaglio (Nice, France)

Supporting: **Olivier Humbert** (Nice, France)

Educational Objectives

1. Learn the applications and promises of AI in medical physics.
2. Learn the applications and promises of AI in nuclear medicine
3. learn the potential risks of AI and how to deal with them.

Summary

Artificial intelligence (AI) is poised to reshape the practice of medicine. In nuclear medicine, many applications of AI hold the promise of improving the experience of healthcare professionals and patients. These applications are manifold, such as image quality improvement, dose optimization, diagnostic support or AI-guided predictive medicine.

However, by modifying current medical practices, AI also entails risks, notably that of weakening the human relationship between the patient and the healthcare team, or that of introducing biases in the medical decision. Thus, the question is now to define what we want to delegate to AI and under what conditions.

The debate will present the revolutionary aspects and the promises of AI in nuclear medicine, but also its technical and sociological limits, requiring to keep a critical mind.

Key Words:

Artificial Intelligence, Nuclear Medicine, Promises, Risks