PediDose: A pediatric simulated dosimetry platform for clinical use

**Problem**

- Nuclear Medicine procedures involve radioactivity.
- Ionizing radiation can lead to cancer.
- Pediatric patients are more radiosensitive than adults.
- No experimental ways to measure absorbed dose in each organ (internal dosimetry).
- Currently, dosimetry protocols are rough estimations, based on specific anatomical models.

**Goal**

Develop a platform for personalized pediatric dosimetry in NM applications

- Use of well validated Monte Carlo simulations (gold standard for internal dosimetry).
- Use of advanced computational models, incorporating a pediatric population.
- Use of HPC resources for speed-up simulations.
- Exploit AI techniques for accurate prediction of internal personalized dosimetry.

**Contact**

Coordinator: Dr. Panagiotis Papadimitroulas
Institution: BIOEMTECH
T: +30 2130290586 E: panpap@bioemtech.com
PediDose website: FF4-experiment PEDIDOSE