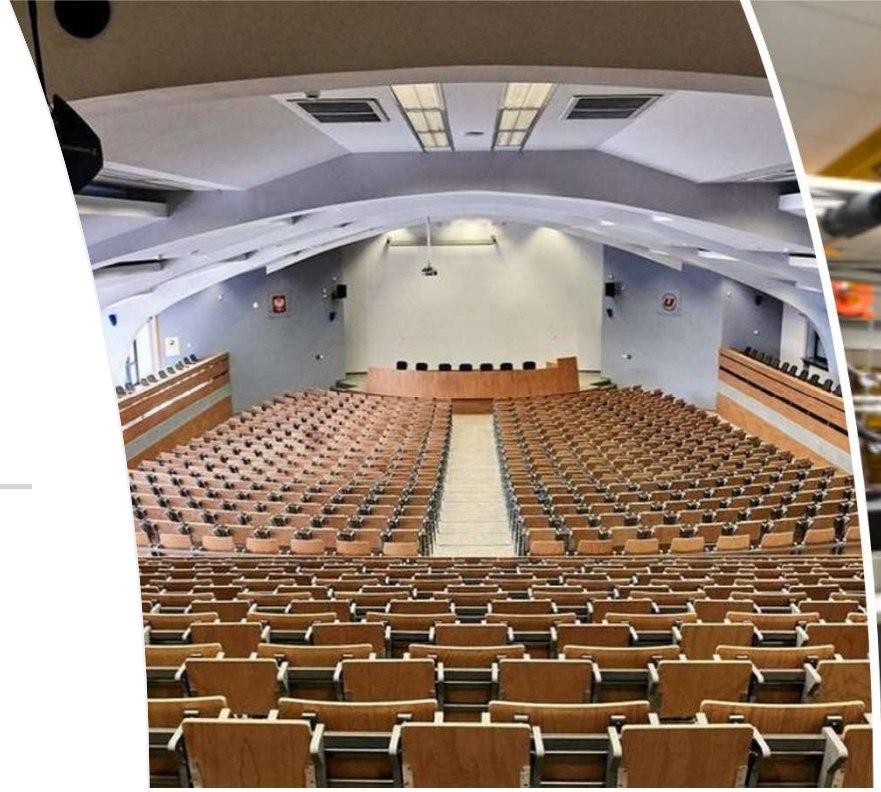
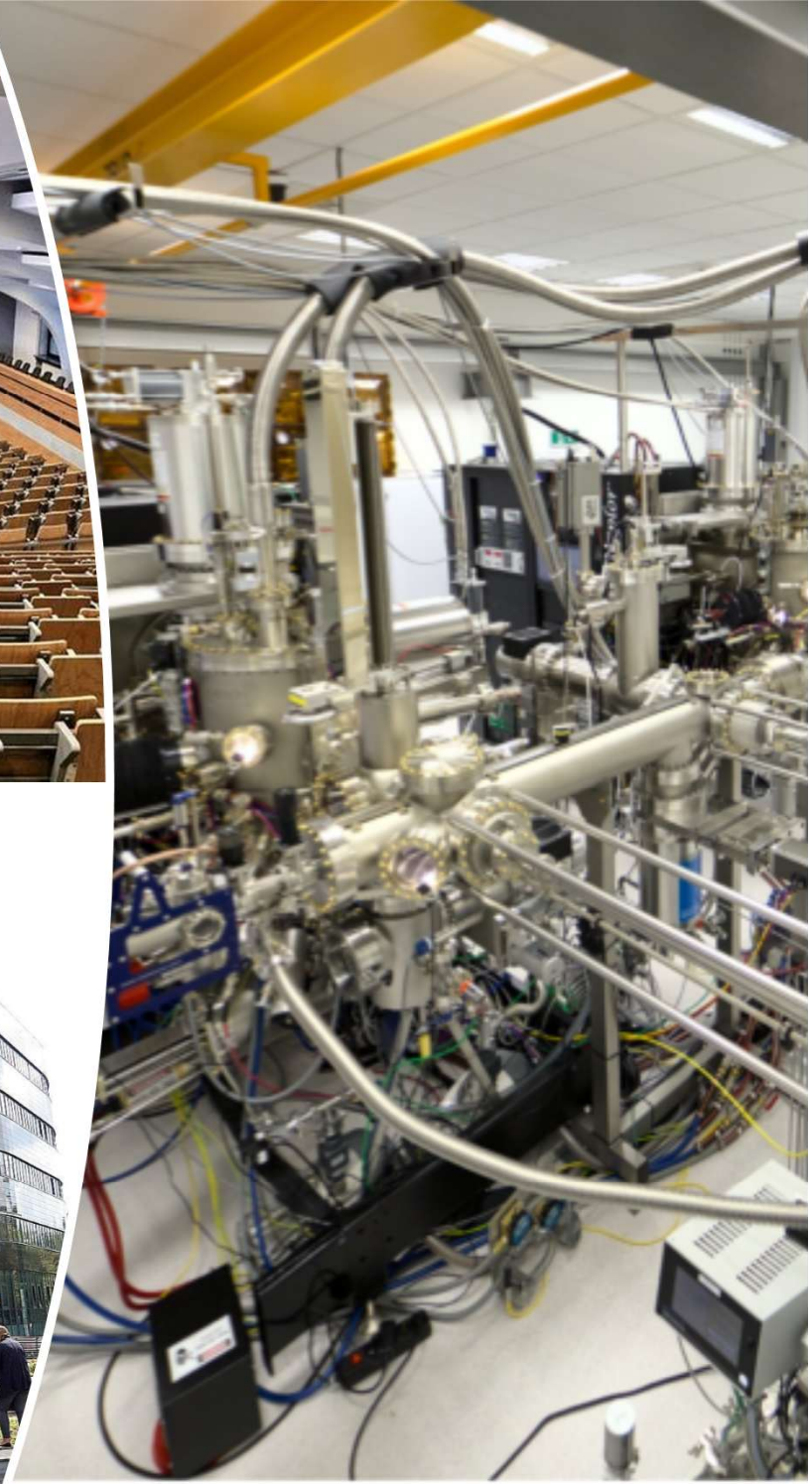
There is still much to be done –

opportunities for personal development and a career in radiological protection from a personal perspective.

Piotr Pankowski, PhD
Faculty of Physics and Applied Informatics
University of Lodz, Poland

My career in radiation protection – from basic science to applications.





ual growth chamber GENxplor MBE systen
ors, semiconductor/ferromagnet and semic

Medical exposure of the population

RADIATION PHYSICS

DOSIMETRY

MEDICINE AND MEDICAL STATISTICS

PUBLIC ADMINISTRATION

PROJECT MANAGEMENT

COLLABORATION – NACIONAL AND INTERNATIONAL

Some facts about medical exposure

- Ionising radiation is a recognised carcinogen.
- Medical applications are the largest source of exposure in developed countries.
- Patients have the right to reliable and honest information about radiation risks, as do workers who use radiation.
- The informed and responsible use of radiation in medicine is extremely important.
- Many exposures are unnecessary and unoptimized.
- Exposure of children and pregnant women.

Radiation protection in medicine:

- Protection of the population,
- Protection of patients,
- Protection of staff,
- X-ray equipment:
  - diagnostics,
  - therapy,
  - nuclear medicine,
- Legislation,
- ICRP, IAEA, UNSCEAR,etc.

Challenges

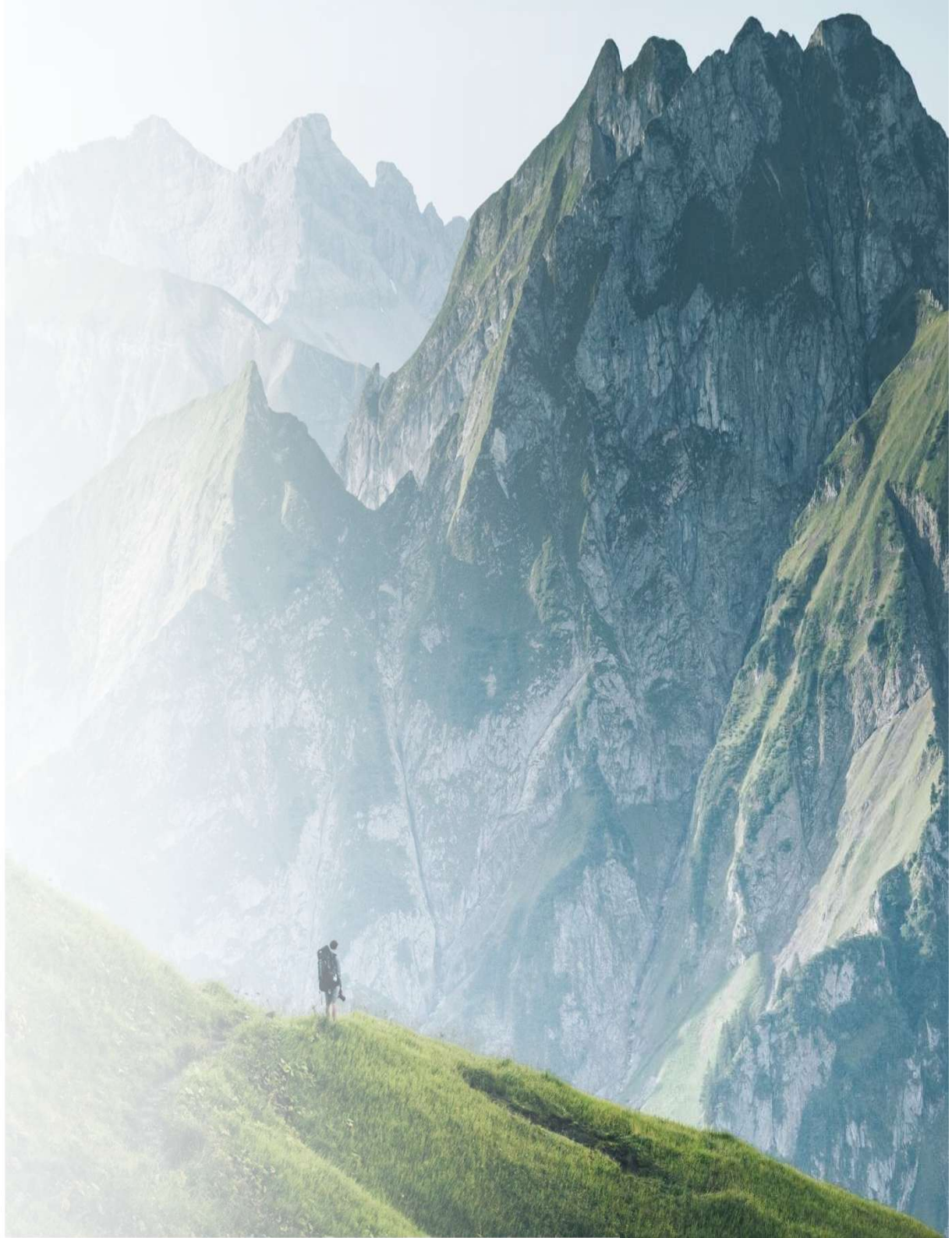
- Modern technologies (diagnostics and therapy).
- Better, safer and optimised procedures.
- Identifying and preventing the delayed effects of radiation exposure.
- Quality control of radiological equipment.
- Education, Research and Development.

- Project for ICRP Task Group 116 Mentees 2023/2024

Optimisation of radiological protection aspects of imaging in radiotherapy

- *Development of nationwide guidelines for the use of cone beam tomography (CBCT) in image-guided radiotherapy.*

Is it an attractive career path?



Tkank you for your attention.