

***EPTN-EURADOS Workshop on Out-of-field dosimetry in proton therapy: translation to clinical practice, with a Focus on Pregnant Patients***

Program **on-site** meeting (10-11 March 2025) - limited to 50 attendants

**Monday morning (from 9h, coffee available from 8:30) - state of the art and overview**

- 1) Welcome, aim and scope of this workshop and practical information (Gloria Vilches, Maastricht)
- 2) Intro and highlights of the on-line meeting (Gloria Vilches, Maastricht/Christian Bäumer, Essen)
- 3) Overview of epidemiological facts (Neige Journy, HARMONIC project):
  - health effects of external rad exposures in children
  - effects of proton/neutron from epi/clinical studies
  - effects of exposures in utero vs childhood
- 4) Effects of prenatal photon RT exposure (Phil Koken, Amsterdam, AKZ)
- 5) Prenatal radiation exposure from diagnostic imaging and radiation therapy: status in Germany and current trends (Martin Fiebich, Giessen)
- 6) Recommendations and patterns of practice for image guidance in PT (EPTN WP4) and on-going research with focus on x-ray exposure (Alexandru Dasu, Uppsala – *online or moved to Tuesday*)
- 7) Dose quantities - what should be reported in terms of secondary radiation exposure?(Maite Exposito, Skandion)
- 8) Introduction to out-of-field mixed radiation field in PBS:
  - a) Dosimetry challenges - active and passive detectors (Oliver van Hoey, SCK CEN)
  - b) Monte Carlo challenges (neutron cross-section, nuclear models, code benchmarking, details for modelling, practical aspects) (Marijke De Saint-Hubert, SCK CEN/N.N., University of Rome)
- 9) European projects - purpose and highlights:
  - SONORA (pregnant patients) (Hrvoje Brkic, MEFOS)
  - PROPOSE(BE) (pregnant patients) (Tom Depuydt, Leuven)
  - HARMONIC (children) (Christian Bäumer, Essen)
  - “The secondary neutrons project in Heidelberg” (José Vedelago/Christian Stengl, Heidelberg)
- 10) Wrap up: define some working goals per subgroup (all together)

**Monday afternoon and Tuesday morning: Application to the clinic/ how can we do it? Discussion in subgroups**

- **Subgroup 1: Clinical aspects/ questions regarding therapy** (Tom Depuydt/to be defined)
- **Subgroup 2: Clinical aspects/ questions regarding imaging** (Christian Bäumer/Alexandru Dasu)
- **Subgroup 3: Experimental dosimetry (used for validation of MC codes or to report dose)** (Marijke De Saint-Hubert/ Liliana Stolarczyk)

**Monday evening – social dinner** (location follows)

**Tuesday afternoon - closure at 16h**

- 1) Wrap up and highlights of the workshop: presentation per subgroup
- 2) Discuss the roadmap on how to proceed
- 3) Follow-up of the workshop (brainstorm)