

Subcommittee Name: Microdosimetry and Radiation Quality

Co-chairs

Name	Country	Term started	Term ends*
Chiara La Tessa	USA	June 2025	June 2028
Emanuele Scifoni	Italy	June 2025	June 2028

** The term of office is 3 years and may be renewed once, for a maximum total service of 6 years. It is recommended that the 3 co-chairs come from 3 different continents (America, Asia, Europe). To ensure continuity, it is recommended that the co-chairs step down on a staggered basis following their first three-year term.*

Subcommittee Achievements (e.g. white papers, publications, workshops, ...):

The Microdosimetry and Radiation Quality Subcommittee was approved at the PTCOG 2025 Annual Meeting and has therefore been active for approximately one year. During this first year, we focused on establishing an international community and developing resources to support the use and standardization of microdosimetry in particle therapy.

A major achievement was the organization of the 4th International Workshop on Microdosimetry for Particle Therapy Bridging Physics and Biology, held in conjunction with the PTCOG 2026 Annual Meeting. The workshop brought together approximately 50 participants and provided a forum for discussion of microdosimetric techniques, detector technologies, radiation quality characterization, and their translation into research and clinical applications.

The Subcommittee is currently preparing a white paper on guidelines for microdosimetry in particle therapy, with the goal of providing recommendations for measurements, reporting, data analysis, and comparison across institutions and detector systems.

In parallel, we are developing a dedicated Microdosimetry and Radiation Quality community website. The platform is envisioned as a central resource where researchers can share and access microdosimetric data, exchange information and expertise through a community discussion space, and connect with other groups working in the field.

If yes, please describe the planned activities and goals for the next 3 years:

Over the next three years, the Microdosimetry and Radiation Quality Subcommittee plans to:

- Support existing microdosimetry websites as a platform for data sharing, discussion, educational resources, and collaboration.
- Prepare at least one additional publication addressing microdosimetry in particle therapy, with particular focus on the steps needed to facilitate its translation into clinical practice.
- Organize at least three Subcommittee meetings per year: two virtual meetings and one in-person meeting during the PTCOG Annual Meeting.
- Continue organizing the International Workshop on Microdosimetry in conjunction with PTCOG.
- Promote the inclusion of microdosimetry and radiation quality in PTCOG education and training activities.
- Strengthen collaborations and exchange of expertise among groups working on microdosimetry and radiation quality within the particle therapy community.

Please circulate this form to all subcommittee members and once agreed upon by the subcommittee submit it to: secretariat@ptcog.online (cc: m.durante@gsi.de) within:

August 30, 2026

Please attach the list of subcommittee members (name and country).

The information contained in this form and the list of members will be uploaded on the webpage of your subcommittee (see: <https://ptcog.online/subcommittee/>).