

Proposal for a new Special Interest Group (SIG)

Name of SIG¹:	Particle Therapy
Parent Committee(s)²:	Scientific Committee
Keywords³:	Proton beam therapy; Carbon-ion radiotherapy; Heavy-ion therapy
Rationale⁴:	<p>The application of proton and heavier-ion beams for radiotherapy continues to expand across Europe, and worldwide. The technology is evolving rapidly and novel methods of beam delivery present challenges for medical physicists in the particle therapy field. Interest in using protons for both ultra-high dose rate and spatially-fractionated radiotherapy is growing, and increasing effort is being made to study the potential clinical application of heavier-ion species such as Helium and Carbon.</p> <p>This growth of particle therapy continues, both in terms of number of facilities as well as complexity, on a backdrop of hitherto unresolved physical and biological uncertainties, and a deficit of medical physicists trained in particle therapy relative to the demand.</p> <p>So that we may take better advantage of the physical characteristics of ion-beams for improving radiotherapy outcomes, a network of medical physicists engaged in research, clinical practice, education, and professional matters related to particle therapy would be of significant value.</p>
Target audience⁵:	Medical physicists involved in clinical implementation and delivery of particle therapy, as well as those engaged in translational particle therapy physics research and development. Also, manufacturers of particle therapy equipment and treatment planning software.

<p>Expected outcome⁶:</p>	<ul style="list-style-type: none"> ○ Develop network of medical physicists involved in particle therapy by promoting the existence and actions of the SIG in the European Medical Physics News. ○ Propose and deliver educational events in various aspects particle therapy physics: technology; dosimetry; clinical implementation and delivery; novel applications, etc... European School of Medical Physics school editions and EFOMP webinars will be planned according to the needs. ○ Propose recommendations for novel particle therapies, and publish via the European Journal of Medical Physics. ○ Propose and organise scientific events within the European Congress of Medical Physics. ○ Collaborate with other associations (AAPM, PTCOG, EPTN) involved in particle therapy. ○ Provide a platform for exchange of ideas and data, and to help improve European translational research in particle therapy.
<p>Coordination⁷:</p>	<p>An inaugural meeting of the SIG will be scheduled remotely. This will be an opportunity to discuss structure and scope of the SIG; to present ideas for SIG initiatives, and to broaden the initial membership.</p> <p>The main connection within EFOMP will be the Scientific Committee.</p> <p>Connections will be established with AAPM and PTCOG, as well as the physics groups of the EPTN.</p>

Legend

1) **Name of SIG**

- 2) **Parent Committee(s)** - Relevant EFOMP Committee. If more than one parent committee is listed, the FIRST listed will be the official parent committee.
- 3) **Keywords** - include at least 3 keywords.
- 4) **Rationale** - What is the justification and need for the proposed SIG.
- 5) **Target audience** - e.g. Medical Physicists, Vendors.
- 6) **Expected outcome** - Description of the relevant results expected from the SIG.
- 7) **Collaborations** - Specify if there should be a coordination or collaboration with other EFOMP Committees, WGs, SIGs and/or scientific organisations.

Annex 1: List of individuals interested in founding an EFOMP Special Interest Group on Particle Therapy

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