

Particle Therapy International Meeting – organised as part of LhARA initiative

Date: last week of Feb 2026 (*Feb 27th or Feb 13th if possible to accommodate Marco Durante*)

Venue: Institute of Physics (IOP) / hybrid

Sponsored by IOP - will need a badge/logo [contact/member: **Richard/Ken**]

IOP groups: Medical Physics; Biophysics; Particle Physics; Accelerators

Type of Meeting: One-day international hybrid-meeting

Time: 10am - 4pm

Sponsored by: Industry partners (e.g., Leo Cancer Care, *additional sponsors to be determined – RaySearch? CosyLab?*) List approach. As all other groups £500

In kind: CNRS [contact: **Ken**]

EFOMP PT special interest group (SIG) – [SIG Chair: **Richard**]

IPEM - [member/contact: **Richard**]

PTCOG – [contact: **Richard**]

ARR – [contact: **Jason**]

AAPM PT Subcommittee (?) – [member/contact: **Richard**]

ESTRO (?) – [Contact: **Stuart/Pat**]

BIR – [Contact: **Stuart**]

Aim:

Establishment of an International Advisory Group to guide the biology, clinical applications, and development of particle therapy.

Background paper: Attached (?)

Target Audience:

Biologists, clinicians, and physicists interested in particle therapy, with a particular focus on heavy ions. UKRI-MRC/RTFC/EPSC etc. DOHSC, DSRI. (**CRUK RadNet**)

Expected Outcome:

Publication on the current status and opportunities for LhARA: BIR(?)

Business case for LhARA-for UKRI and DSRI and European applications

Organising Committee:

Pat Price, Ken Long, Richard A. Amos, Jason Parsons, Amato Giaccia, Matthew Williams, Stuart Green

Programme:

Session 1: Current Status and Technology – chaired by Ken Long

- **Current Status of Particle Therapy Internationally:** Clinical and Technological – Where we will be in 10 years
 - *Speaker: Alejandro Mazel / Tony Lomax / Niek Schreuder*
- **Main Challenges and Priority Areas for Development**

- Barriers and solutions in production: Particle range, dose rate, spectral distribution, high LET, imaging techniques, end stations, detection of response
- Speaker: *Sandro Rossi and Katia Parodi and Harold Paganetti*
- Discussion: *Ugo Amaldi*

Session 2: Biological and Clinical Questions – chaired by Pat Price / Marco Durante

- **Key Biological and Clinical Questions**
 - Lessons from FLASH therapy, spatially-fractionated, heavier-ions, etc.
 - *Speakers: Yolanda Prezado + Joao Seco (both EFOMP PT SIG) + Jason Parsons + Kevin Price*
- **Immunological Evidence Supporting Different Mechanisms of Action**
 - Stimulating interest from the immune-oncology community and pharmaceutical industry
 - *Speakers: Marco Durante (PTCOG president)*

Session 3: Clinical and Commercial Development – chaired by Richard Amos

- **Democratizing Particle Therapy**
 - Feasibility of integrating with current radiotherapy practices and potential for economic growth across countries
 - *Speakers: Thomas Bortfeld (AAPM) / Konrad Nesteruk (AAPM / PTCOG)*
- **Technology Development**
 - Learning from rapid advancements in photon beam delivery in the commercial sector-business case
 - *Speaker: Leo cancer care: Rock Mackie / Niek Schreuder*

Session 4: Roadmap for International Development

- **LhARA as an International Research Facility**
Round table: Ken / organising committee + Manjit Dosanjh (has international RT/PT interest)

Suggested Invited Speakers:

- Marco Durante (Darmstadt, Germany & Naples, Italy)
- Alejandro Mazel
- Manjit Dosanjh
- Marcel Kenton
- Jürgen Debus (Heidelberg) - Clinical trials: past and future
- Jeff (NIH)

- Yolanda Prezado (CIMUS, Santiago de Compostela, Spain)
 - Kevin Price or Marco Borghesi (Belfast)
 - Rock Mackie
 - Andy Henderson
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Invited Participants:

UK Clinicians:

- Adrian Crellin (NHS England)
 - David Thomson (Christie - Trials Clinician)
 - Anthony Chalmers (Glasgow - Biology Research)
 - Maria Hawkins (UCL/UCLH)
 - Paul Sanghera (Birmingham - TBD)
 - Eugen Hug (MedAustron - Clinical Director, previously involved with NHS England training)
 - Members of RadNet
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Next Steps:

- Confirm date and venue
- Secure sponsorships
- Finalize speaker invitations
- Develop detailed agenda
- Establish publication plan for post-meeting outcomes

This document serves as a proposal for structuring the meeting and finalizing key elements. Feedback and refinements are welcome.