



# RESEARCH PROJECTS

## Report on the ninth annual meeting and workshops of the European Particle Therapy Network

The European Particle Therapy Network (EPTN) was established in 2015 and became a task force of ESTRO in 2017 in response to the increase in the number of European particle therapy centres. The EPTN held its ninth annual meeting and workshops from the 26-27 October in Manchester, UK. The meeting was held in the Christie Centre in Manchester, and we wish to extend our sincere appreciation to our hosts. We are also grateful for the support of UK Research and Innovation's Science and Technology Facilities Council Advanced Radiotherapy Network+ (ARN+) for the workshops. We were pleased to see a strong resurgence of participants after the COVID-19 pandemic, with 70 participants from 15 European countries.

The full report of the annual meeting and workshops may be accessed here: [ESTRO - EPTN](#).

Following discussions within the network, it has been agreed to establish a new WP (8), which will be dedicated to setting up a data registry. This WP will be led by Esther Troost (Dresden, Germany) and Vincent Grégoire (Lyon, France).

### European particle therapy centres

No new particle therapy centres opened in 2022 or 2023 in Europe. In the UK, operations were discontinued in the Rutherford centres. Looking forward, several new proton therapy centres are expected to open within Europe in the next year: in the cities of Milan and Pavia in Italy, Oslo and Bergen in Norway, and Coruña, Barcelona, Bizkaia, Madrid, Malaga, Seville, Valencia, and Gran Canaria in Spain.

### EPTN-related events 2023 and 2024

Some of the principal events that took place last year or are planned for this year presented in the annual meeting are:

- FLASH Radiotherapy and Particle Therapy: 5–7 December 2023, Toronto, Canada
- 2<sup>nd</sup> EPTN-ESTRO School Workshop: 30 November-1 December 2023, Groningen, The Netherlands
- PSI Winter School 2024: 14-19 January 2024, Villingen, Germany
- ESTRO School – Particle Therapy: 10-14 March 2024, Barcelona, Spain
- ESTRO 2024 Congress: 3-7 May 2024, Glasgow, UK
- Particle Therapy Co-Operative Group 62, 10-15 June 2024, Singapore

The PTCOG website offers a good overview of particle therapy centres across the world: [PTCOG - Home](#)

You can read about the activities of the EPTN, access the Annual- and Workshop reports, as well as announcements and publications on the ESTRO-EPTN webpage [ESTRO - EPTN](#).

We would like to thank everyone who contributes to the continued growth and work of the EPTN, and for a successful ninth annual meeting and workshops in 2023.

**Damien Weber, Cai Grau, and Dietmar Georg**

Co-chairs of the EPTN



**Damien Weber**, Switzerland



**Cai Grau**, Denmark



**Dietmar Georg**, Austria

### **EPTN publications 2022 and 2023**

Seven articles relevant to the EPTN were published in 2022 and 2023. We encourage the community to use EPTN in the titles of publications to highlight the activities of the network. We highlight these publications on the network homepage: [www.estro.org/Science/EPTN](http://www.estro.org/Science/EPTN).

Di Perri D, Hofstede D, Postma A, Zegers CML, In't Ven L, Hoebbers F, van Elmpt W, Verheesen L, Beurskens H, Troost EGC, Compter I, Eekers DBP. Development of explanatory movies for the delineation of new organs at risk in neuro-oncology. *Clin Transl Radiat Oncol*. 2022 Feb 15;33:112-114. doi: 10.1016/j.ctro.2022.02.005. PMID: 35243021; PMCID: PMC8857542.

Vaassen F, Zegers CML, Hofstede D, Wubbels M, Beurskens H, Verheesen L, Canters R, Looney P, Battye M, Gooding MJ, Compter I, Eekers DBP, van Elmpt W. Geometric and dosimetric analysis of CT- and MR-based automatic contouring for the EPTN contouring atlas in neuro-oncology. *Phys Med*. 2023 Oct 7;114:103156. doi: 10.1016/j.ejmp.2023.103156. Epub ahead of print. PMID: 37813050.

Crouzen JA, Petoukhova AL, Wiggeraad RGJ, Hutschemaekers S, Gadellaa-van Hooijdonk CGM, van der Voort van Zyp NCMG, Mast ME, Zindler JD. Development and evaluation of an automated EPTN-consensus based organ at risk atlas in the brain on MRI. *Radiother Oncol*. 2022 Aug;173:262-268. doi: 10.1016/j.radonc.2022.06.004. Epub 2022 Jun 15. PMID: 35714807.

Barcellini A, Massaro M, Dal Mas F, Langendijk JA, Høyer M, Calugaru V, Haustermans K, Timmermann B, Thariat J, Scartoni D, Vennarini S, Georg P, Orlandi E. A year of pandemic for European particle radiotherapy: A survey on behalf of EPTN working group. *Clin Transl Radiat Oncol*. 2022 Feb 24;34:1-6. doi: 10.1016/j.ctro.2022.02.004. PMID: 35243028; PMCID: PMC8885798.

Heuchel L, Hahn C, Pawelke J, Sørensen BS, Dosanjh M, Lühr A. Clinical use and future requirements of relative biological effectiveness: Survey among all European proton therapy centres *Radiother Oncol* 2022; 172, P134-139, July 01, 2022. <https://doi.org/10.1016/j.radonc.2022.05.015>

Knopf AC, Czerska K, Fracchiolla F, Graeff C, Molinelli S, Rinaldi I, Rucincki A, Sterpin E, Stützer K, Trnkova P, Zhang Y, Chang JY, Giap H, Liu W, Schild SE, Simone CB 2nd, Lomax AJ, Meijers A. Clinical necessity of multi-image based (4DMIB) optimization for targets affected by respiratory motion and treated with scanned particle therapy - A comprehensive review. *Radiother Oncol*. 2022 Apr;169:77-85. doi: 10.1016/j.radonc.2022.02.018. Epub 2022 Feb 18. PMID: 35189152.

De Roeck L, van der Weide HL, Eekers DBP, Kramer MC, Alapetite C, Blomstrand M, Burnet NG, Calugaru V, Coremans IEM, Di Perri D, Harrabi S, Iannalfi A, Klaver YLB, Langendijk JA, Romero AM, Paulsen F, Roelofs E, de Ruyscher D, Timmermann B, Vitek P, Weber DC, Whitfield GA, Nyström PW, Zindler J, Troost EGC, Lambrecht M; work package 1 of the taskforce "European Particle Therapy Network" of ESTRO. The European Particle Therapy Network (EPTN) consensus on the follow-up of adult patients with brain and skull base tumours treated with photon or proton irradiation. *Radiother Oncol*. 2022

