



# DANTE AMELIO

## CONTACT

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## PERSONAL INFORMATION

Gender M

Date of birth 21/02/1977

Nationality Italian

## LANGUAGES

Italian 

English 

## CURRENT INSTITUTION

Proton Therapy Center, Azienda Provinciale per i Servizi Sanitari (APSS) Trento, Italy

## QUALIFICATIONS

30.11.2008

**Specialization in Radiation Oncology**

*University of Perugia*

February 2005

**Professional Qualification**

*University of Perugia*

28.07.2004

**Doctor in Medicine**

*University of Perugia*

## PROFESSIONAL EXPERIENCE

February 2010 - Current

**Medical Doctor**

*Azienda Provinciale per i Servizi Sanitari (APSS) Trento, IT*

December 2008 - February 2010

**Scientific Collaborator**

*Agenzia Provinciale per la Protonterapia (ATreP) Trento, IT*

## TRAINININGS AND FELLOWSHIPS

- c/o Rome University "La Sapienza" – Radiation Oncology Department, S. Andrea Hospital (Rome, IT)
- c/o Rome University "La Sapienza" – Neuro Radiology Department, S. Andrea Hospital (Rome, IT)
- c/o Verona University Hospital – Neuro Radiology Department (Verona, IT)
- c/o Paul Sherrer Institute (PSI) - Proton therapy center, Villigen (CH)
- c/o Heidelberg University – Heidelberg Ion Therapy center (HIT) and Radiation Oncology Department (Heidelberg, GER)
- c/o Francis H. Burr Proton Therapy Center and Radiation Oncology Department - Massachusetts General Hospital (Boston, USA)

# SCIENTIFIC ACTIVITY

## PUBLICATIONS

### Full papers

Development and clinical application of a probabilistic robustness evaluation tool for pencil beam scanning proton therapy treatments. *Phys Med* 2025

Controversies in neuro-oncology: Focal proton versus photon radiation therapy for adult brain tumors. *Neurooncol Pract* 2024

Re-irradiation for recurrent intracranial meningiomas: Analysis of clinical outcomes and prognostic factors. *Radiother Oncol* 2024

Proton therapy re-irradiation provides promising clinical results in recurrent brain meningioma. *Acta Oncol* 2023

Automation of pencil beam scanning proton treatment planning for intracranial tumours. *Phys Med* 2023

Multidisciplinary Management of Craniopharyngiomas in Children: A Single Center Experience. *Diagnostics (Basel)* 2022

Is it beneficial Is it beneficial to use apertures in proton radiosurgery with a scanning beam? A dosimetric comparison in neurinoma and meningioma patients. *J Applied Clinical Medical Physics* 2022

Predict Treatment Response by Magnetic Resonance Diffusion Weighted Imaging: A Preliminary Study on 46 Meningiomas Treated with Proton-Therapy. *Diagnostics* 2021

Multicomponent T2 relaxometry reveals early myelin white matter changes induced by proton radiation treatment. *Magnetic Resonance Medicine* 2021

Magnetic Resonance Imaging during Proton Therapy Irradiation Allows for the Early Response Assessment of Pediatric Chordoma. *Diagnostics* 2021

Quantitative multicomponent T2 relaxation showed greater sensitivity than Flair imaging to detect subtle alterations at the periphery of lower grade gliomas. *Frontiers Oncology* 2021

Proton therapy re-irradiation preserves health-related quality of life in large recurrent glioblastoma. *Journal Cancer Research Clinical Oncology* 2020

Clinical implementation in proton therapy of multi-field optimization by hybrid method combining conventional PTV with robust optimization. *Physics Medicine Biology* 2020

Modelling the risk of radiation induced alopecia in brain tumor patients treated with scanned proton beams. *Radiother Oncol* 2019

Re-irradiation for recurrent glioma: outcome evaluation, toxicity and prognostic factors assessment. A multicenter study of the Radioation Oncology Italian Association (AIRO). *J Neurooncol* 2019

PET in brain tumors. *Clinical Translational Imaging* 2018

Practice patterns of image guided particle therapy in Europe: a 2016 survey of the European Particle Therapy Network (EPTN). *Radiother Oncol* 2018

Policies for reirradiation of recurrent high-grade gliomas: a survey among Italian radiation oncologists. *Tumori Journal* 2018

Water equivalent thickness of immobilization devices in proton therapy planning - Modelling at treatment planning and validation by measurements with a multi-layer ionization chamber. *Phys Med* 2017

The role of stereotactic ablative radiotherapy in oncological and non-oncological clinical settings: highlights from the 7th Meeting of AIRO--Young Members Working Group (AIRO Giovani). *Tumori* 2014

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|                      | <p>Radiosurgery with photons or protons for benign and malignant tumours of the skull base: a review. <i>Radiat Oncol</i> 2012</p> <p>Analysis of inter- and intrafraction accuracy of a commercial thermoplastic mask used for image-guided particle radiation therapy. <i>J Radiat Res</i> 2013</p> <p>IMRT or 3D-CRT in glioblastoma? A dosimetric criterion for patient selection. <i>Technol Cancer Res Treat</i> 2013</p> <p>Early MRI changes in glioblastoma in the period between surgery and adjuvant therapy. <i>J Neurooncol</i> 2013</p> <p>Stereotactic irradiation of GH-secreting pituitary adenomas. <i>Int J Endocrinol</i> 2012.</p> <p>Radiation therapy for the treatment of recurrent glioblastoma: an overview. <i>Cancers (Basel)</i> 2012</p> <p>Radiation therapy for the treatment of recurrent glioblastoma:an overview. <i>Cancers (Basel)</i> 2012</p> <p>A review of the role of re-irradiation in recurrent high-grade glioma (HGG). <i>Cancers (Basel)</i> 2011</p> <p>Intensity-modulated radiation therapy in newly diagnosed glioblastoma: a systematic review on clinical and tecnica issues. <i>Radiother Oncol</i> 2010</p> <p>Clinical target volume delineation in glioblastomas: pre-operative versus post-operative/pre-radiotherapy MRI. <i>Br J Radiol</i> 2010</p> <p>Patterns of failure and comparison of differnt target volumes delineations in patients with glioblastoma treated with conformal radiotherapy plus concomitant and adjuvant temozolomide. <i>Radiother Oncol</i> 2010</p> <p>A systematic review of proton therapy in the treatment of chondrosarcoma of the skull base. <i>Neurosurg Rev</i> 2010</p> <p>Proton therapy in chordoma of the base of the skull: a systematic review. <i>Neurosurg Rev</i> 2009</p> |
| <b>Abstracts</b>     | <p>Author/co-author of about 90 abstracts accepted as poster/oral presentation in national and international congresses</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Book chapters</b> | <p>Treatment of skull base tumors with proton radiation therapy: potential, evidence and perspectives. Nova Science Publisher, Hauppauge NY, 2014</p> <p>Radiosurgery and hypofractionated stereotactic irradiation with photons or protons for tumours of the skull base. InTech, Rijeka, 2013</p> <p>Intensity-modulated radiation therapy in newly diagnosed high-grade gliomas: potential, evidence and perspectives. Nova Science Publisher, Hauppauge NY, 2012</p> <p>The role of irradiation in the treatment of chordoma of the skull base and spine. InTech, Rijeka, 2011</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Guidelines</b>    | <p>Co-author of AIRO (Italian Association of Radiation Oncology) Guidelines for the treatment of CNS Brain Tumors (2013)</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Awards</b>        | <p>EANO (European Association of Neuro-Oncology) Travel grant for the 9th EANO Congress (Maastricht – NL, 2010)</p> <p>PTCOG (Particle Therapy Co-operative Group) Travel grant for 50th PTCOG Congress (Philadelphia – USA, 2011)</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

## Membership

AIRO (Italian Association of Radiation Oncology)

ESTRO (European Society for Radiotherapy and Oncology)

AINO (Italian Association of Neuro-Oncology)

EANO (European Association of Neuro-Oncology)

## Other

Advisor of AIRO CNS Tumor Group (2014-2015)

Advisor of AIRO Triveneto (2020-2021)

Sub-Coordinator of CNS/H&N Tumors of Workpackage 4 (WP4 – Image guidance in particle therapy) of European Particle Therapy Network (EPTN) of ESTRO

Adjunct Professor c/o Humanitas University (2019-2025)

PhD Course in Oncology, Hematology and Pathology c/o Bologna University (on going 3<sup>rd</sup> year)

Editor board member for

Oncology Research  
Therapeutics  
Advances in Radiotherapy & Nuclear Medicine

Reviewer for

Radiotherapy and Oncology  
Radiation Oncology  
Journal of Neurooncology  
Neurosurgical Review  
Cancers  
Frontiers  
British Journal of Radiology  
Technology in Cancer Research and Treatments  
Physica Medica  
Tumori Journal  
Diagnostics

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Trento, 20 Agosto 2025

Come Associazione di Radioterapia Italiana, AIRO promuove i più elevati livelli di cura dei pazienti affetti da tumori e allo stesso tempo promuove e supporta attività educazionali con lo scopo di favorire lo sviluppo strutturato della Radioterapia in Italia.

Tali attività necessitano del supporto e della collaborazione di esperti del settore; allo stesso tempo tuttavia ritengo che esso possa beneficiare anche dell'entusiasmo di specialisti più giovani, ma con elevato livello di esperienza.

Avendo maturato oltre 15 anni di esperienza lavorativa e scientifica, ritengo di aver raggiunto un elevato livello di competenza come oncologo radioterapista.

Allo stesso tempo sono un socio e partecipo attivamente alle attività di AIRO da lungo tempo: ho già ricoperto l'incarico di Consigliere di Gruppo di Studio (SNC, 2014-2015) e ho collaborato alle attività di AIRO sia come relatore per eventi educazionali nonché alla stesura di Linee Guida (SNC, 2013).

Infine, dopo prolungata esperienza nell'esecuzione di trattamenti per patologie benigne, mi sono negli ultimi anni dedicato anche al trattamento radiante di condizioni non oncologiche (c/o il nostro centro è in fase di sviluppo un protocollo di trattamento per aritmie cardiache resistenti con Protonterapia).

Ritengo pertanto che possa essere giunto il momento per unire l'esperienza al desiderio di ricoprire l'incarico di Consigliere del Gruppo di Studio Trattamenti Ablativi non Oncologici, supportando al massimo e promuovendo le possibilità di crescita del Gruppo sia da un punto di vista scientifico che educativo.

Cordialmente,

Dante Amelio