

EDUCATIONAL PROJECT

# THINK HADROM

## discovering Hadrontherapy within Multidisciplinarity

Scientific Coordinator  
**Ester Orlandi**

### WEBINARS

- 01 November 21<sup>th</sup>, 2022 | h 15,00 - 18,05 | 4,5 CME credits
- 02 December 12<sup>th</sup>, 2022 | h 15,00 - 17,30 | 3 CME credit
- 03 February 15<sup>th</sup>, 2023 | h 15,00 - 17,45 | 3 CME credits

With the endorsement of:



Associazione Italiana  
Radioterapia e Oncologia clinica

**ESTRO**

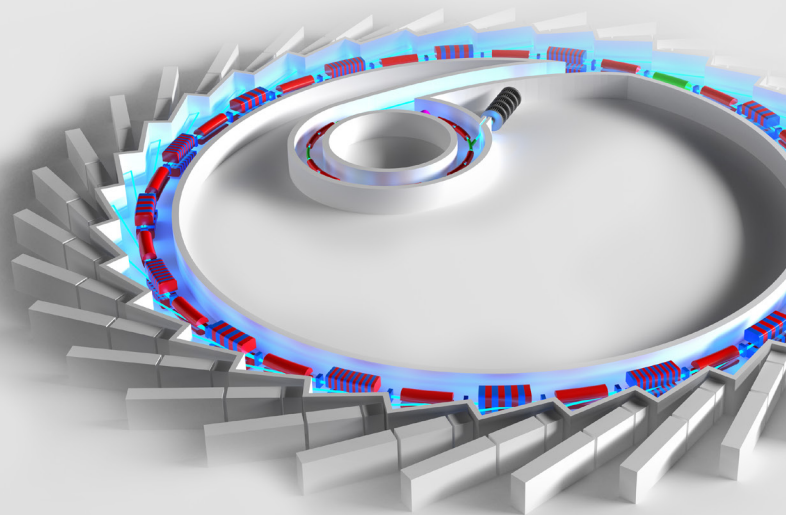


**SIB**  
Società Italiana del Basicranio

ACC  MED  
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In partnership with

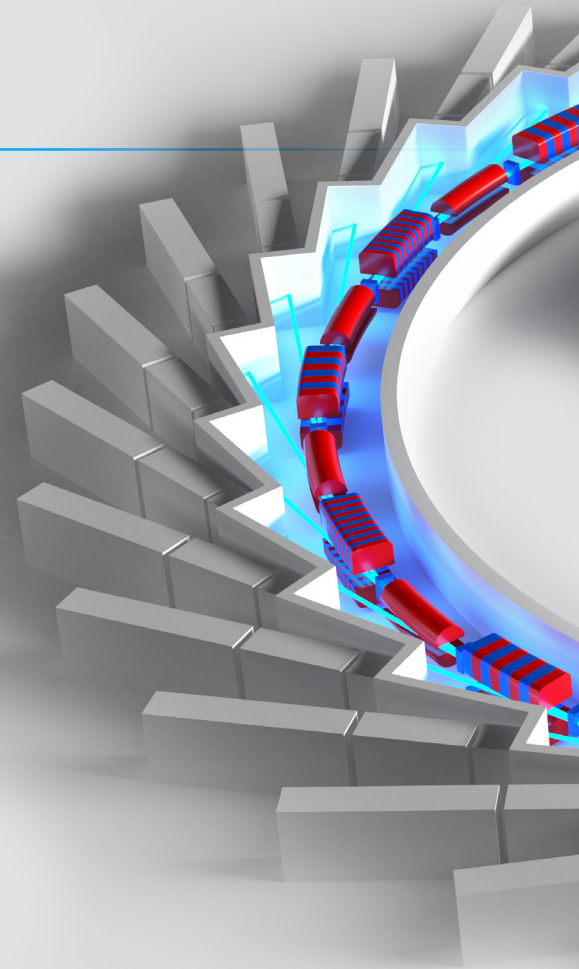
**CNAO**  
Centro Nazionale di Adroterapia Oncologica



Monday, November 21<sup>st</sup> 2022

## AIMS

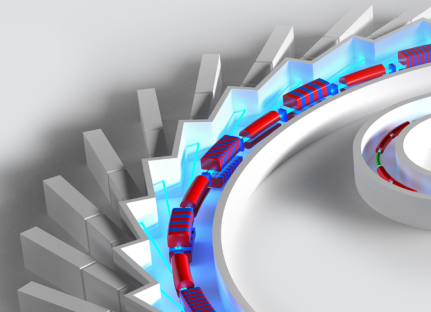
The webinar will face current methodologies to evaluate the sustainability of Hadrontherapy going through the clinical experiences and the ethical aspects. Given that Hadrontherapy is up-to-date addressed to rare tumors, a multidisciplinary collaboration is of utmost importance for its application both for the patients benefit and for Healthcare Systems. The translational research will give the chance to expand the scientific knowledge on the clinical benefits of Hadrontherapy. Moreover National and International Networks and Cooperations are the keys to build clinical evidence for and to maximize the investment for this innovative technology.



Monday, November 21<sup>st</sup> 2022

## Program

- |  |  |   |
|--|--|---|
| 15.00 Meeting introduction<br><i>Ester Orlandi</i>   | 15.50 Ethics and new technologies<br><i>Virginia Sanchini</i>  | 17.30 Development of a cost-effectiveness model in a randomized trial for hadrontherapy<br><i>Steven J. Frank</i> |
| 15.10 Alternative strategies for obtaining clinical evidence for hadron therapy<br><i>Christian Hammer</i>                       | 16.10 The importance of the oncological network<br><i>Stefano Maria Magrini</i>                            | 17.50 Discussion  |
| 15.30 Health economic evaluation in planning hadrontherapy<br><i>Elio Borgonovi</i>  | 16.30 Health technology assessment<br><i>Alexandra Jensen</i>  | 18.00 Take home messages<br><i>Ester Orlandi</i>  |
| 15.40 Decision-analytical modelling for economic evaluations in healthcare, with examples in oncology<br><i>Silvana Quaglini</i> | 16.50 Traslational research in hadrontherapy: current status and future directions<br><i>Marco Durante</i> | 18.05 Adjourn   |
|  | 17.10 The role of particle therapy networking: EPTN<br><i>Cai Grau</i>                                     |   |



Monday, November 21<sup>st</sup> 2022

## Scientific Coordinator

Ester Orlandi  
Radiation Oncology Clinical Department  
CNAO National Center for Oncological Hadrontherapy  
Pavia  
Italy

## Invited Speakers

Elio Borgonovi  
Public and Healthcare Management  
Milan  
Italy

Marco Durante  
Biophysics Department  
GSI Helmholtz Center  
Darmstadt  
PTCOG President  
Germany

Steven J. Frank  
The Bessie McGoldrick Professorship in  
Clinical Cancer Research  
Particle Therapy Institute  
Strategic Programs  
Division of Radiation Oncology  
The University of Texas MD Anderson  
Cancer Center  
USA

Cai Grau  
Danish Centre for Particle Therapy  
Aarhus University Hospital  
Denmark

Christian Hammer  
Department of Radiation Oncology  
University Medical Center  
University of Groningen  
The Netherlands

Alexandra Jensen  
Department of Radiation Oncology  
University Hospitals Gießen and Marburg  
(UKGM)  
Gießen  
Germany

Stefano Maria Magrini  
Department of Radiation Oncology  
University of Brescia and Spedali Civili  
Hospital  
Brescia  
Italy

Silvana Quaglini  
Department of Internal Medicine  
San Matteo Hospital Foundation  
University of Pavia  
Italy

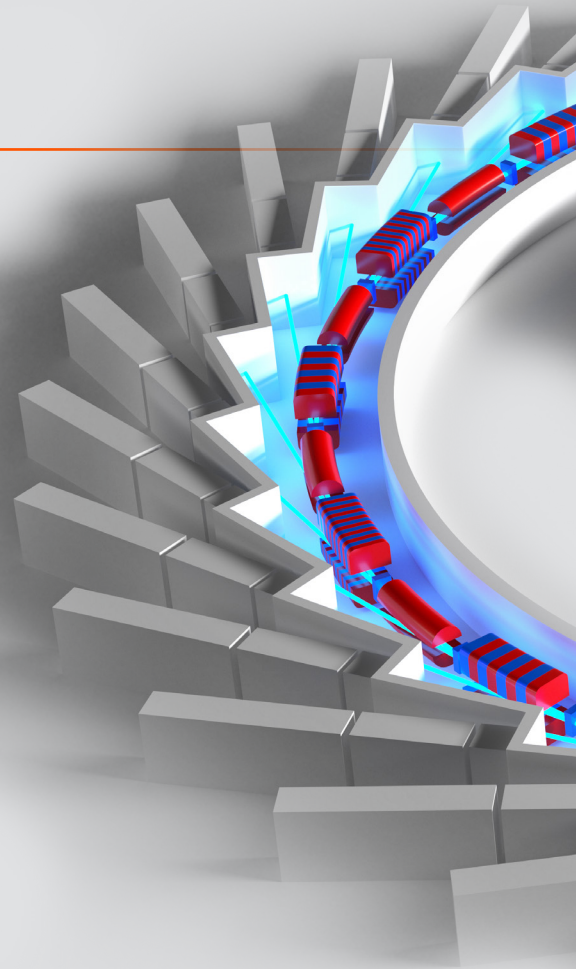
Virginia Sanchini  
Department of Oncology and Hemato-  
Oncology  
Università di Milan  
Italy

Monday, December 12<sup>th</sup> 2022

## AIMS

The webinar will be focused on the therapeutic management of Head and Neck cancers, with particular regards to the current evidences and future development of particle therapy. Particle therapy is currently one of the advanced techniques of radiation therapy, increasingly selected thanks to the advantageous physical and biological properties. Due to the proximity of HNC target volumes to numerous critical structures and the radioresistance of several histologies, nowadays hadrontherapy represents a promising alternative to photon-based therapy. Head and Neck cancers treatment needs a multidisciplinary approach due to the complexity and rarity of the disease.

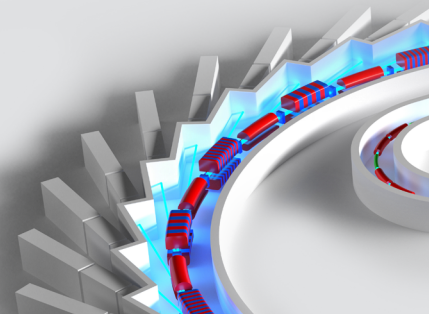
In this setting, future perspectives will explore the possible combination of systemic therapies and Hadrontherapy, defining the role and timing of these new strategies within national and international collaboration.



Monday, December 12<sup>th</sup> 2022

## Program

- |   |   |  |
|---|---|--|
| 15.00 Meeting introduction<br><i>Ester Orlandi</i>  | 16.10 Hadrontherapy for paranasal<br>sinuses cancers<br><i>Juliette Thariat</i>   | 17.10 Discussion                                 |
| 15.10 Current evidence of protons<br>and future developments for<br>H&N cancers<br><i>Arnaud Beddok</i> | 16.30 Challenges in combining<br>endoscopic surgery and<br>particle therapy for paranasal<br>sinuses cancers<br><i>Marco Ferrari</i>                      | 17.25 Take home messages<br><i>Ester Orlandi</i> |
| 15.30 Proton therapy for<br>nasopharyngeal carcinoma<br><i>Melvin Chua Lee Kiang</i>                    | 16.50 Combining hadrons<br>and chemotherapy or<br>immunotherapy for rare H&N<br>cancers: state of the art and<br>future challenges<br><i>Laura Locati</i> | 17.30 Adjourn                                    |



Monday, December 12<sup>th</sup> 2022

### Scientific Coordinator

Ester Orlandi  
Radiation Oncology Clinical Department  
CNAO National Center for Oncological Hadrontherapy  
Pavia  
Italy

### Invited Speakers

Arnaud Beddok  
Gordon Center for Medical Imaging  
Massachusetts General Hospital  
Harvard Medical School  
Boston USA  
University Paris Saclay  
Radiation Oncology Department  
PSL Research University,  
Institut Curie  
Paris  
France

Melvin Chua  
Division of Radiation Oncology  
National Cancer Centre Singapore

Marco Ferrari  
Department of Neurosciences  
University of Padova  
Italy

Laura Locati  
Translational Oncology  
IRCCS ICS Maugeri  
Department of Internal Medicine and  
Medical Therapy  
University of Pavia  
Italy

Sara Ronchi  
Radiotherapy Unit  
Clinical Department  
CNAO National Center for Oncological  
Hadrontherapy  
Pavia  
Italy

Juliette Thariat  
Department of Radiation Oncology  
Françoise Baclesse Center ARCHADE  
Normandy University  
Caen  
France

Barbara Vischioni  
Radiotherapy Unit  
Clinical Department  
CNAO National Center for Oncological  
Hadrontherapy  
Pavia Italy

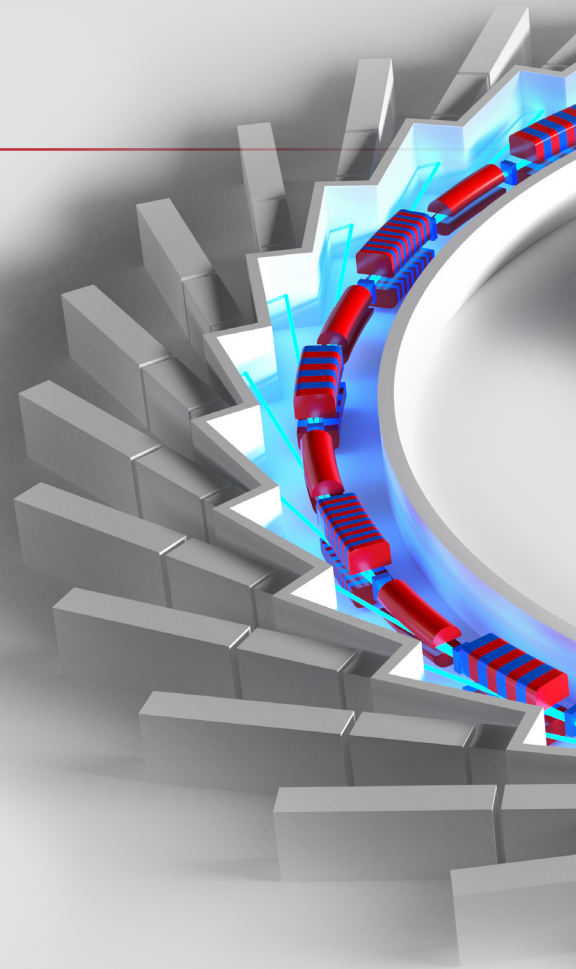
# CHORDOMAS and CHONDROSARCOMAS

Wednesday, 15<sup>th</sup> February 2023

## AIMS

The webinar introduces the indication of surgery and hadrontherapy as the treatment of chordomas and chondrosarcomas.

The therapeutic use of protons and carbons has gained significant interest due to advantageous physical and radiobiologic properties compared to photon-based therapy. By taking advantage of these unique properties, carbon ion radiotherapy (CIRT) may allow dose escalation to tumours while reducing radiation dose to adjacent normal tissues. For these reasons, CIRT has emerged as a promising strategy for the treatment of a variety of malignancies including sacral chordomas that have a relatively poor radiosensitivity and are in critical location. Topics of the webinar will also be the locoregional approach with systemic treatment and the validity of alternative local therapy when surgery or radiotherapy cannot be considered as the appropriate clinical choice.

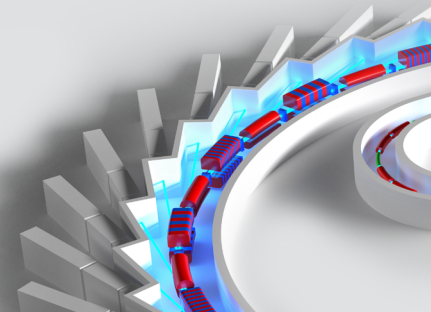




Wednesday, 15<sup>th</sup> February 2023

## Program

- |   |   |   |
|---|---|---|
| 15.00 Meeting introduction<br><i>Ester Orlandi</i>  | 16.10 CNAO experience for chordoma and chondrosarcoma<br><i>Alberto Iannalfi,<br/>Maria Rosaria Fiore</i>         | 17.10 Alternative local therapy when there is no indication for surgery and radiotherapy<br><i>Carlo Morosi</i> |
| 15.10 Indication to surgery of the sacrum and mobile spine: site specific morbidity and rationale for alternative treatments<br><i>Stefano Radaelli</i> | 16.30 Radiobiological aspects in plan optimization with hadrons for chordomas<br><i>Silvia Molinelli</i>          | 17.30 Discussion  |
| 15.30 The role of the endoscopic endonasal approach (EEA) in the treatment of clival chordomas<br><i>Diego Mazzatenta</i>                               | 16.50 When a systemic treatment is a valuable alternative to a locoregional approach<br><i>Silvia Stacchiotti</i> | 17.40 Take home messages<br><i>Ester Orlandi</i>  |
| 15.50 Proton therapy for chordoma and chondrosarcoma<br><i>Damien Weber</i>   |   | 17.45 Adjourn   |



Wednesday, 15<sup>th</sup> February 2023

## Scientific Coordinator

Ester Orlandi  
Radiation Oncology Clinical Department  
CNAO National Center for Oncological Hadrontherapy  
Pavia  
Italy

## Invited Speakers

**Maria Rosaria Fiore**  
Radiotherapy Unit, Clinical Department  
CNAO National Center for Oncological  
Hadrontherapy  
Pavia, Italy

**Alberto Iannalfi**  
Radiotherapy Unit, Clinical Department  
CNAO National Center for Oncological  
Hadrontherapy  
Pavia, Italy

**Diego Mazzatenta**  
Department of Biomedical and neuromotor  
sciences  
University of Bologna  
Center of pituitary and endoscopic  
skull\_base surgery  
IRCCS Institute of neurological sciences  
of Bologna  
Bellaria Hospital, Italy

**Silvia Molinelli**  
Medical Physics Unit, Clinical Department  
CNAO National Center for Oncological  
Hadrontherapy  
Pavia, Italy

**Carlo Morosi**  
Radiology Department  
Fondazione IRCCS  
Istituto Nazionale dei Tumori  
Milan, Italy

**Stefano Radaelli**  
Department of Surgery  
Fondazione IRCCS  
Istituto Nazionale dei Tumori  
Milan, Italy

**Silvia Stacchiotti**  
Adult Mesenchymal Tumor and Rare Cancer  
Unit  
Department of Cancer Medicine  
Fondazione IRCCS  
Istituto Nazionale Tumori  
Milan, Italy

**Damien Weber**  
Center for Proton Therapy  
Paul Scherrer Institute  
Villigen, Switzerland

# THINK HADROM

discovering Hadrontherapy  
within Multidisciplinary

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## Target Audience

Medical oncologists, radiation oncologists, radiologists, general surgeons, maxillo-facialsurgeons, neurosurgeon, otolaryngologists, nuclear medicine physicians, neuroradiologists, neurologists, orthopedics, pain therapists, pediatricians, physiotherapists, nutritionists, nurses, biologists, medical physicists, pharmacists, radiology technicians.

## CME

Based on the in force regulations approved by the CNFC, Accademia Nazionale di Medicina (provider n. 31) will assign to:

01 Webinar 21<sup>st</sup> November CME (31-365277):

4,5 CME credits

02 Webinar 12<sup>th</sup> December CME (31-365278):

3 CME credits

03 Webinar 15<sup>th</sup> February 2023 CME (31-370386):

3 CME credits

Training objective: professional and technical content (knowledge and skills) specific to each profession, specialization and highly specialized activity. Rare disease.

The credit certification for the webinar is subject to: - Professions/specializations should correspond to those which have been accredited for CME; - attendance at the 100% of the webinar live on the platform fad. accmed.org - the completion of the Meeting evaluation online form; - completion of the final test (at least 75% of correct answers). 5 attempt admitted. The test and the meeting evaluation form must be completed within 3 days from the end of the event.

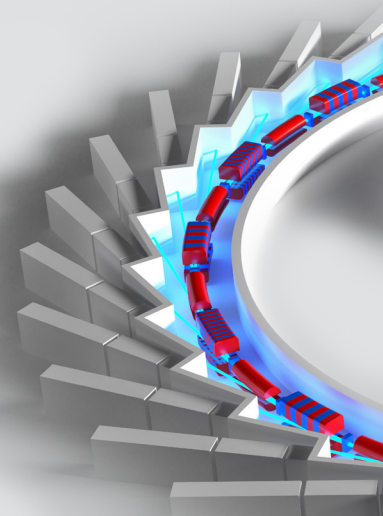
## Registration

Participation to the webinars is free, places available are limited.

Registrations are only available at <https://fad.accmed.org/course/info.php?id=1044>, they will be accepted in the chronological order of arrival and will be confirmed by e-mail

## How to participate

Participants will need a good quality internet connection and a device (PC, smartphone, tablet) capable of running a recent Internet browser (e.g. any updated version of Chrome or Firefox)



# THINK HADROM

discovering Hadrontherapy  
within Multidisciplinarity

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## Organizer

ACCADEMIA NAZIONALE DI MEDICINA  
Direttore Generale: Stefania Ledda  
Via Martin Piaggio, 17/6  
16122 Genova

## Information

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## Logistics and technological services

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CONTRIBUTORS



\* 02 Head & Neck Tumors  
December 12<sup>th</sup> 2022 only

