EDUCATIONAL PROJECT

THINK HADROM

Discovering Hadrontherapy within Multidisciplinarity

Scientific Coordinator
Ester Orlandi

WEBINARS

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

With the endorsement of:
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.
# Program

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

Monday, November 21st 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 of Milan
Italy
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.
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<td>Meeting introduction</td>
<td>Ester Orlandi</td>
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<tr>
<td>15.10</td>
<td>Current evidence of protons and future developments for H&amp;N cancers</td>
<td>Arnaud Beddok</td>
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<tr>
<td>15.30</td>
<td>Proton therapy for nasopharyngeal carcinoma</td>
<td>Melvin Chua Lee Kiang</td>
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<td>15.50</td>
<td>CNAO experience for H&amp;N cancers</td>
<td>Sara Ronchi, Barbara Vischioni</td>
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<td>16.00</td>
<td>Hadrontherapy for paranasal sinuses cancers</td>
<td>Juliette Thariat</td>
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<td>16.30</td>
<td>Challenges in combining endoscopic surgery and particle therapy for paranasal sinuses cancers</td>
<td>Marco Ferrari</td>
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<td>16.50</td>
<td>Combining hadrons and chemotherapy or immunotherapy for rare H&amp;N cancers: state of the art and future challenges</td>
<td>Laura Locati</td>
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<tr>
<td>17.10</td>
<td>Discussion</td>
<td>Ester Orlandi</td>
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<tr>
<td>17.25</td>
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HEAD & NECK TUMORS

Monday, December 12th 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

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

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Arnaud Beddok
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PSL Research University,
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National Cancer Centre Singapore

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Department of Neurosciences
University of Padova
Italy

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IRCCS ICS Maugeri
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University of Pavia
Italy

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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
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.
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<tr>
<td>15.10</td>
<td>Indication to surgery of the sacrum and mobile spine: site specific morbidity and rational for alternative treatments</td>
<td><em>Stefano Radaelli</em></td>
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<tr>
<td>15.30</td>
<td>The role of the endoscopic endonasal approach (EEA) in the treatment of clival chordomas</td>
<td><em>Diego Mazzatenta</em></td>
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<tr>
<td>15.50</td>
<td>Proton therapy for chordoma and chondrosarcoma</td>
<td><em>Damien Weber</em></td>
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<tr>
<td>16.10</td>
<td>CNAO experience for chordoma and chondrosarcoma</td>
<td><em>Alberto Iannalfi, Maria Rosaria Fiore</em></td>
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<tr>
<td>16.30</td>
<td>Radiobiological aspects in plan optimization with hadrons for chordomas</td>
<td><em>Silvia Molinelli</em></td>
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<td>16.50</td>
<td>When a systemic treatment is a valuable alternative to a locoregional approach</td>
<td><em>Silvia Stacchiotti</em></td>
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<td>16.10</td>
<td>Alternative local therapy when there is no indication for surgery and radiotherapy</td>
<td><em>Carlo Morosi</em></td>
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CHORDOMAS and CHONDROSARCOMAS

Wednesday, 15th February 2023

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

Invited Speakers
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
Bellaia 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
Target Audience
Medical oncologists, radiation oncologists, radiologists, general surgeons, maxillo-facial surgeons, 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 21st November CME (31-365277): 4.5 CME credits
02 Webinar 12th December CME (31-365278): 3 CME credits
03 Webinar 15th February 2023: 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

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

Information
fad.accmed.org
Tel +39 010 83794273
Cell. +39 349 0530484
Mail: segreteriacorsi@accmed.org

Logistics and technological services
Forum Service
Via Martin Piaggio 17/7
16122 Genova

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**CONTRIBUTORS**

* 02 Head & Neck Tumors
  December 12th 2022 only