# PTMC Video Conference 24 February 2024

## PARTICLE THERAPY MASTERCLASS











#### Institutes Country, name of the institute, city

Saturday 24 February 2024		
1	GERMANY, DKFZ, Heidelberg	
2	ALGERIA, University of Constantine	
3	PORTUGAL, LIP - University of Lisbon / Faculty of Sciences	
4	SPAIN, Hospital Universitario La Paz, Madrid	
5	SPAIN, Hospital Universitario Marqués De Valdecilla, Santander, Cantabria	







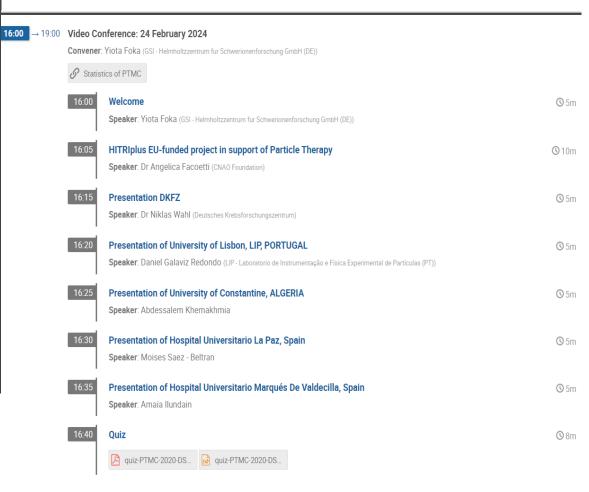
#### PTMC Video Conference 24 February 2024



https://indico.cern.ch/event/1246302/

Moderators: Yiota Foka (GSI), Angelica Facoetti (CNAO)



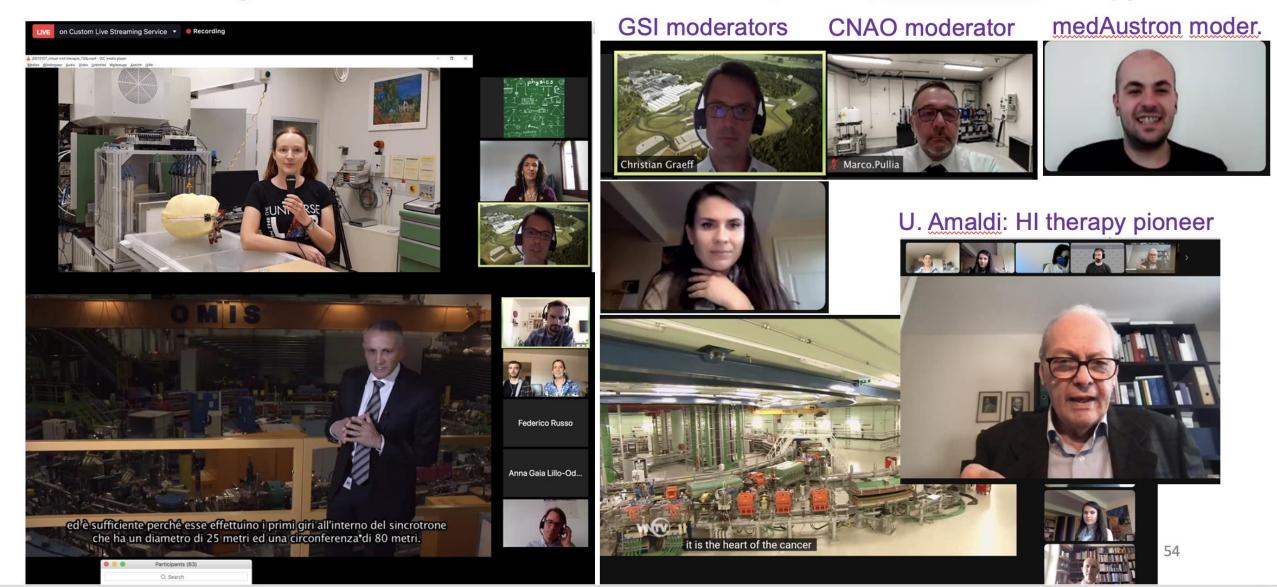




This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101008548

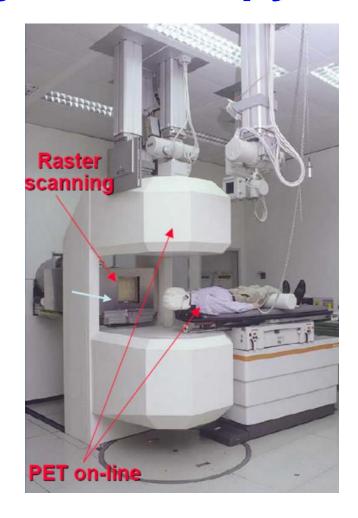
#### Virtual visits and video-conferences

Virtual visits during video-conference: GSI research institute, CNAO, MedAustron therapy centers



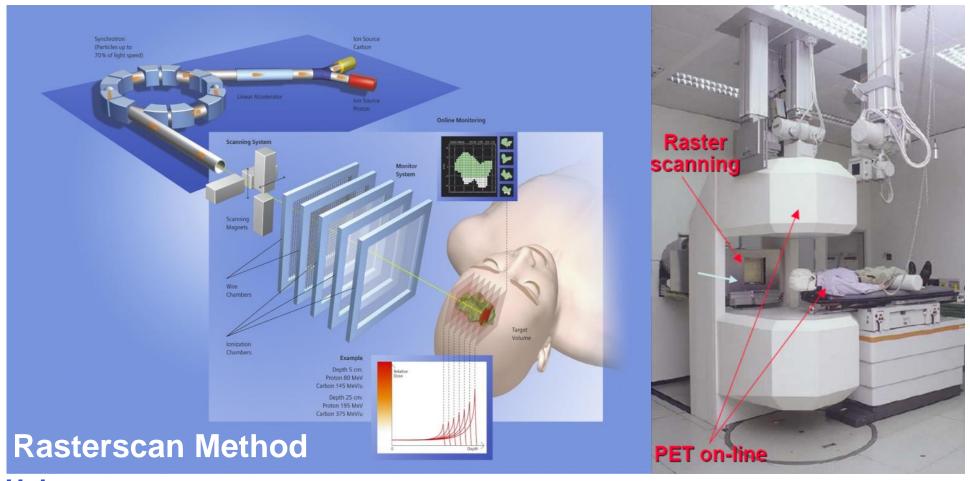
## Heavy-ion research and heavy-ion therapy at GSI





Pioneered heavy-ion (carbon) therapy for cancer tumours in Europe (90s).

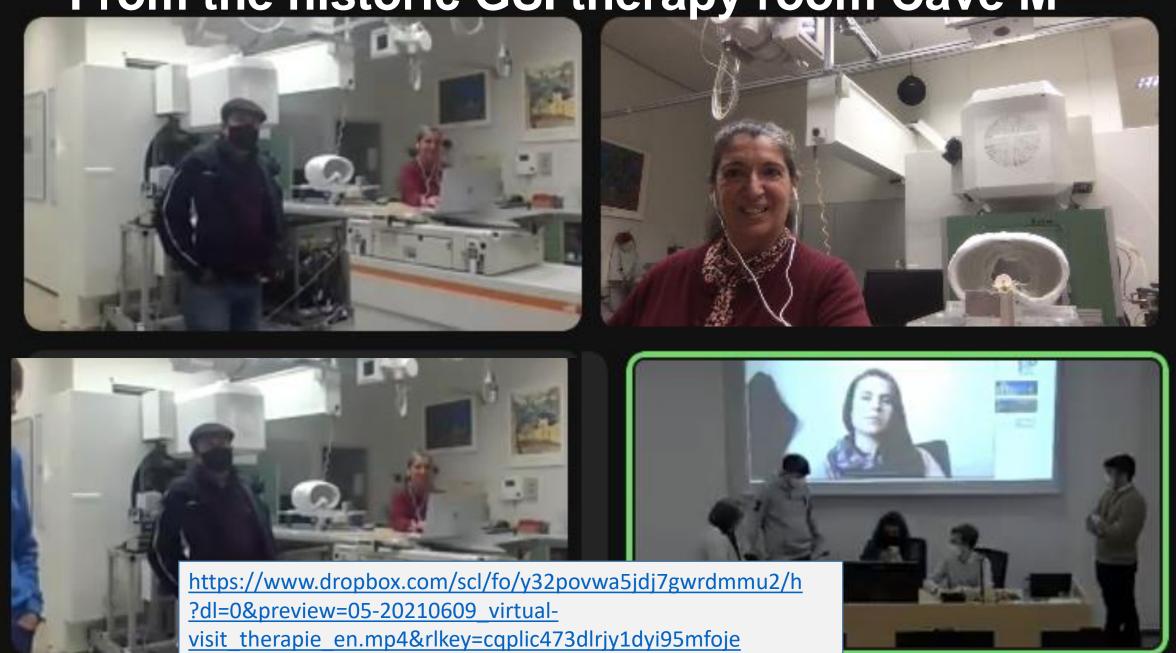
## Heavy-ion research and heavy-ion therapy at GSI



Haberer et al., NIM A , 1993

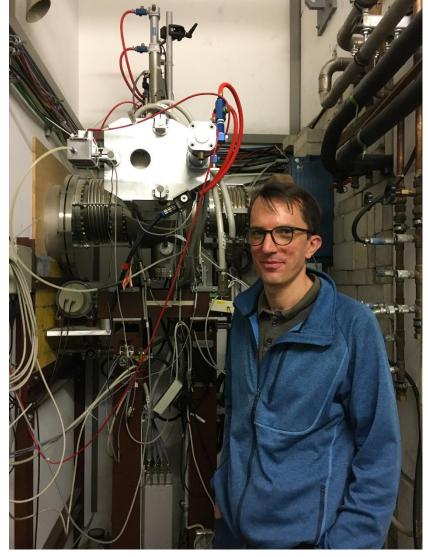
Implemented in the Heidelberg and Marburg Ion Treatment centers (HIT and MIT) in Germany

From the historic GSI therapy room Cave M

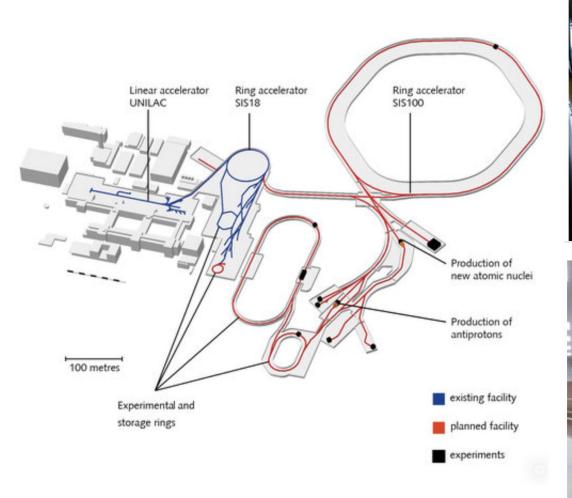


#### What is behind the wall?





#### What is behind the wall?









#### Four carbon-ion cancer therapy centers in Europe

MedAustron, Austria





HIT, Germany



MIT, Germany





## **Virtual Hadron Therapy Center ENLIGHT** on Gantry Proton GantBeam Section Consulting Area Preparation Rooms eception Children's Area Imaging Control R Particle Accelerator Presentation Room



Particle Therapy Masterclass

Animations https://indico.cern.ch/event/840212/page/18000-animations

#### **Research Institutes**

es si fair	GSI/FAIR general science video, Courtesy of GSI
CERN	CERN Video, Courtesy of CERN

#### **Therapy Centres**

ENLIGHT	ENLIGHT Animations, Courtesy of ENLIGHT
CNAO Coron Nacional e Administrato	CNAO Video, Courtesy of CNAO
HIT	HIT Video, Courtesy of HIT
MedAustron	MedAustron Video, Courtesy of MedAustron  MedAustron Behind the Scenes, Courtesy of MedAustron



Many thanks to the PTMC core team, all moderators and local organisers, the HITRIplus project for contributions and support







# The HITRIplus project Heavy Ion Therapy Research Integration plus

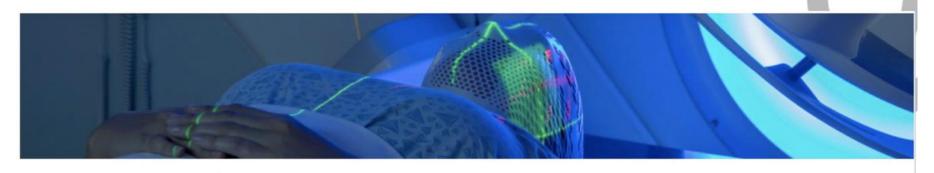


https://www.hitriplus.eu



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101008548







HITRIplus @hitriplus9177 102 iscritti

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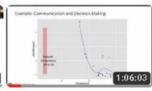
9th Seminar of HITRIplus -FLASH radiotherapy with...

349 visualizzazioni • 1 mese fa



8th Seminar of HITRIplus – The Past, Present, and...

31 visualizzazioni • 3 mesi fa



HITR Lecture 32: Key aspects of safety in Particl...

33 visualizzazioni · 6 mesi fa



Final Lecture: Closing Thoughts from Organisers

21 visualizzazioni · 6 mesi fa



HITR Lecture 31: External Beam Ablation Medical...

40 visualizzazioni • 7 mesi fa



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#### **Webinars**





MAURIZIO VRETENAR

14th Seminar of HITRIplus - Accelerating 13th Seminar of HITRIplus - The EUthe future: designing a robust and affordab. RAPTOR project radiation therapy treatment system for challenging environments

12th Seminar of HITRIplus - New trends and initiatives in accelerators for ion therapy of cancer

> FELIPE CALVO



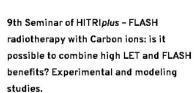


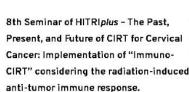
11th Seminar of HITRIplus - LIGHT: a linear 10th Seminar of HITRIplus - Helium Ion accelerator for cancer therapy, AVO-ADAM.



Beam Therapy







NORIYUKI

**OKONOGI** 



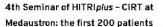


6th Seminar of HITRIplus - Human organoids: a new model system for pre-clinical studies of toxicity and effectiveness of particle therapy



5th Seminar of HITRIplus - Marburg Ion Beam Therapy Center: Innovations in Physics and Radiobiology







3rd Seminar of HITRIplus - Ion Beam Therapy at HIT: Options for Multi-lon Treatment and Research



2nd Seminar of HITRIplus - INSPIRE project



Opening Seminar of HITRIplus - The status and perspectives of CNAO



@hitriplus9177 · 287 iscritti · 131 video



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