



Finanziato  
dall'Unione europea  
NextGenerationEU



Ministero  
dell'Università  
e della Ricerca



Italiadomani  
PIANO NAZIONALE  
DI RIPRESA E RESILIENZA



THE  
Tuscany Health Ecosystem

# Tuscany Health Ecosystem

## 4<sup>th</sup> THE Meeting

### ADVANCED RADIOTHERAPIES AND DIAGNOSTIC IN ONCOLOGY

#### SESSION 1 - SPOKE COORDINATION and MANAGEMENT

Auditorium (Edificio A) (09:00 - 10:00)

09:00 Spoke 1 : Overview of activities and emerging plans for the future

*Leonida Antonio Gizzi*

09:20 Spoke 5: Breve aggiornamento su attività relative a regolatorio dei dispositivi medici

*Elisabetta Bianchini*

09:40 La gestione del progetto: obiettivi e risultati raggiunti, azioni future

*Donata Fornaciari*

**Coffee Break - Aula 29 (10:00-10:30)**

#### SESSION 2 - SPOKE 1 Progress of subprojects: Clinicals

Auditorium (Edificio A) (10:30 - 11:15)

10:30 Preliminary evaluation of Flash electron Radiotherapy in the treatment of Uveal melanoma

*Mariagrazia Celentano*

10:45 Radiopharmaceuticals for clinical use produced in the pharmaceutical workshop: progress status

*Letizia Guiducci*

11:00 Towards the clinical applications of Flash Radiotherapy. An overview of the 1.5.4/1.5.8 deliverables

*Andrea Cavalieri*

#### SESSION 3 - SPOKE 1 Progress of subprojects: Technology and Simulations

Auditorium (Edificio A) (11:15 - 13:30)

11:15 Update on requirements collection and first prototypes of the data platform

*Camilla Scapicchio*

11:30 A minimalistic phenomenological model of the FLASH effect

*Igor Bodrenko, Valentina Tozzini*

11:45 The future of VHEE medical applications: what simulations are telling us

*Costanza Panaino*

12:00 VHEE generation and transport: experimental work

*Martina Salvadori*

12:15 Spectral features of VHEE beams

*Simon Vlachos*

12:30 Correlation Study of ICT charge and Lanex Screen Emission signal in High-Energy Beam Measurements

*David Gregocki*

12:45 Tomographic Reconstruction of Dose Distribution for 3D-Dosimetry in FLASH-RT using a Monolithic Plastic Scintillator

*Eleonora Ravera*

13:00 VHEE beam at sample and dosimetry: experimental approach (Milestone 1.1 and 1.6)

*Simona Piccinini*

13:15 First radiobiology assays with UHDR VHEE beam

*Andrea Borghini*

**Lunch - Aula 29 (13:30-15:00)**

#### SESSION 4 - SPOKE 1 Progress of subprojects: Pre-Clinicals

Auditorium (Edificio A) (15:00 - 17:40)

15:00 An in vitro platform to investigate the FLASH effects on melanoma and normal skin cells

*Alice Usai*

15:15 Effects of Conventional and FLASH radiotherapy on glioblastoma and melanoma cells

*Beatrice D'Orsi*

15:30 Saving Neurons: The Sparing Effect of FLASH Radiotherapy

*Gabriele Sansevero*

15:45 FLASH radiation effects on ocular tissues

*Beatrice Di Marco*

16:00 Radiotherapy-induced ultrastructural modifications of corneal collagen probed by SHG microscopy

*Riccardo Cicchi*

**Coffee Break - Aula 29 (16:15-16:45)**

16:45 Evaluating FLASH and Conventional radiation response on brain-resident microglia

*Vinoshene Pillai Rajan*

17:00 Comparative analysis of FLASH and Conventional Radiotherapy in a murine model of melanoma and healthy animals

*Eduarda Mota Da Silva*

17:10 Development of multimeric radiotracers for the design of tumor microenvironment-selective theranostic agents for cancer diagnosis and therapy

*Costanza Fabbri*

17:25 Design and synthesis of 3 series of mono and multimeric radiotracers targeting tumor microenvironment and designed as selective theranostic agents

*Gioele Renzi*

**Final remarks - End of the meeting**