

RaCHy

Radiotherapy Coupled
with Hyperthermia

EURAMET EMPIR 18HLT06 RaCHy PROJECT: Radiotherapy coupled with hyperthermia A combined approach for the treatment of tumours

2nd RaCHy STAKEHOLDER WORKSHOP

Tuesday, 23rd November 2021 from 09:00 to 13:30
BESSY Lecture Hall

Helmholtz-Zentrum Berlin für Materialien und Energie, Berlin - Germany

The workshop will be available on line and on site. The workshop is **FREE**.

For the registration please fill the form:

<https://www.ptb.de/cms/ptb/fachabteilungen/abt7/fb-71/ag-711/rachy-workshop.html>

For further information please contact Dr. Bernd Kaestner:

bernd.kaestner@ptb.de

Due to covid restrictions the room capacity will be limited to 25 seats.
Please, register by November 15th

The beneficial effects of combining hyperthermia, artificial raising of temperature to 40 - 45°C, and radiotherapy are well known in cancer treatment. Recent laboratory studies have demonstrated the radiation dose can be more than halved if combined with hyperthermia thus maintain the same survival rate. This free workshop, which will be also streamed online, will see the participation of world leading researchers in the field of radiotherapy and hyperthermia, and the most important metrology institutes in Europe to discuss the latest developments and the measurement challenges involved in the treatment. They will be joined by a selected committee of stakeholders representing clinics, pre-clinics and Oncology Institutes.

Project Consortium



PRESENTATION FROM THE RaChy CONSORTIUM

09:00

WELCOME AND OPENING OF THE WORKSHOP

Bernd Kästner - PTB Physikalisch-Technische Bundesanstalt -Germany

09:05

EURAMET EMPIR 18HLT06 RaChy PROJECT OVERVIEW

Giovanni Durando - INRIM Istituto di Ricerca Metrologica - Italy

09:15

DESIGN AND *IN SILICO* MODELLING OF MAGNETIC NANOPARTICLES FOR HYPERTHERMIA APPLICATIONS

Alessandra Manzin - INRIM Istituto di Ricerca Metrologica - Italy

09:35

DESIGN AND CHARACTERISATION OF A SYSTEM FOR ULTRASOUND HYPERTHERMIA IN SMALL ANIMALS

Raphaella Baesso - NPL National Physical Laboratory - UK

09:55

COMBINATION OF US HYPERTHERMIA AND RADIOTHERAPY: *IN VIVO* PRELIMINARY RESULTS AND FUTURE PLANS

Antonello Spinelli - OSR Ospedale San Raffaele - Italy

10:15

INNOVATIVE ANALYTICAL TOOLS FOR BIOLOGICAL ASSESSMENT

Andrea Hornemann - PTB Physikalisch-Technische Bundesanstalt - Germany

10:35

EVALUATION OF THE SYNERGISTIC BIOLOGICAL EFFECTS FROM COMBINED RADIOTHERAPY HYPERTHERMIA EXPERIMENTS

Jacco de Pooter - VSL Dutch Metrology Institute - Netherlands

10:55

COFFEE BREAK

PRESENTATION FROM STAKEHOLDERS

11:20

US AND RADIOTHERAPY - PRECLINICAL STUDIES

Gail ter Haar - ICR The Institute fo Cancer Research - UK

11:40

THERMAL DOSE CONCEPTS AND THEIR IMPACT FOR CLINICAL THERMAL THERAPY

Gerard van Rhooen - ESHO European Society of Hyperthermic Oncology - Netherlands

12:00

WHAT DO WE NEED FOR TO ACHIEVE THE MAXIMUM SYNERGETIC EFFECT OF HYPERTHERMIA COMBINED WITH RADIOTHERAPY?

Cristina Garibaldi - IEO Istituto Europeo di Oncologia -Italy

12:20

PROSPECTIVE THERMAL DOSE EVALUATION IN REFRACTORY AND RECURRENT CHILDHOOD LIVER TUMORS

Ruediger Wessalowski - Heinrich-Heine-University -Germany

12:40

TEST OBJECTS FOR HIFU THERMAL THERAPY

Simone Ambrogio - GSST Guy's and St Thomas' NHS Foundation Trust - UK

13:00

TOWARDS AN EUROPEAN METROLOGY NETWORK IN THE FIELD OF THE MEDICAL APPLICATIONS USING IONIZING RADIATIONS: THE MIRA PROJECT

Valentin Blideanu - EMPIR 19NET04 MIRA - France

13:20

FINAL REMARKS AND CLOSING OF THE WORKSHOP

Giovanni Durando - INRIM Istituto di Ricerca Metrologica - Italy