



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 Rhoon - 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**
REGIONAL DEEP HYPERTHERMIA IN REFRACTORY/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