

Information

Registration

Registration opens on April 7, 2014, via E-Mail or online registration www.oncoray.de.

Registration deadline is August 31, 2014.

The registration fee is 100 €. It includes admission to workshop and exhibition, as well as catering (lunch and coffee) on both days.

Confirmation of registration will be sent after receipt of the registration form and fee.

The workshop will be limited to 100 participants.

Posters / Abstracts

Posters are very welcome. Information on abstract submission will be given on the registration website.

Language

The workshop language will be English.

No simultaneous translation will be provided.

Organizer

Guntram Pausch, OncoRay

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Workshop Office

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Venue

OncoRay – National Center
for Radiation Research in Oncology
House 130
Händelallee 26
D-01309 Dresden



Range Assessment and Dose Verification in Particle Therapy

Workshop

to be held in Dresden, Germany
September 29-30, 2014



Organized by OncoRay

National Center for Radiation Research
in Oncology
Faculty of Medicine
Technische Universität Dresden
Germany



Preface

Proton and ion beams open up new vistas for the curative treatment of tumors in close proximity to organs at risk, supposed the range of therapy particles is well under control. In general, the sharp distal edge of particle beams allows conserving healthy tissue behind the tumor. In practice, the depth profile of dose delivery can be affected by factors hard to assess in a reasonable clinical workflow. There is, on the one hand, a large and growing part of clinical practitioners considering range assessment in vivo and in real time a key for improving particle therapies. On the other hand, appropriate technical solutions are not yet in sight, though many research groups throughout the world have made considerable efforts to tackle the challenge. A critical review of requirements, concepts, technologies, and hands-on experience concerning range assessment seems to be advisable. That is why OncoRay invites to a Workshop on Range Assessment and Dose Verification in Particle Therapy to be held in the new Proton Therapy Facility in Dresden. Compliant with the translational research strategy followed at OncoRay, it will consider different viewpoints and perspectives – theory (physics, modeling) as well as technology (detectors, electronics) and clinical practice. Experts representing the different fields in public research and industry will be brought together, thus triggering discussions, exchange of knowledge and experience, and – hopefully – novel ideas. The workshop includes an industrial exhibition to be presented alongside the conference posters in the experimental area of the Proton Therapy Facility. We hope to welcome you in Dresden!

Yours sincerely,



Guntram Pausch, Workshop Organizer

Preliminary Agenda

Sunday, September 28

19.00 *Informal reception*
OncoRay – National Center for Radiation Research in Oncology, House 130 Händelallee 26

Monday, September 29

08.50-09.00 *Introduction and Opening*

Topic I: Clinical practice and requirements

- Range and dose verification in clinical practice, accuracy requirements, legal and economic constraints
(Poster Session and Industrial Exhibition)

Topic II: Particle-therapy PET (PT-PET)

- Instrumentation, clinical practice, workflow considerations
(Poster Session and Industrial Exhibition)

Topic III: Prompt-gamma imaging (PGI)

- Status of ongoing projects, instrument optimization, modeling, benchmark tests of data bases relevant for PGI
(Poster Session and Industrial Exhibition)

20.00 *Social dinner*

Tuesday, September 30

Topic IV: Alternative approaches

- MRT, ultrasound, and others
(Poster Session and Industrial Exhibition)

Topic V: Detector technologies for PGI and PT-PET

- Novel scintillators and light readout technologies, CZT and other semiconductor detectors with spatial resolution, ultra-fast timing for TOF-PET, customized readout electronics
(Poster Session and Industrial Exhibition)

Invited Speakers

Michael Baumann, OncoRay
Wolfgang Enghardt, OncoRay
Fine Fiedler, HZDR
Thomas Bortfeld, MGH, Harvard, Boston
Joost Verburg, MGH, Harvard, Boston
Katia Parodi, LMU Munich
Peter Thirolf, LMU Munich
Dennis Schaart, TU Delft
Damien Prieels, IBA, Lovain-la-Neuve
Julien Smeets, IBA, Lovain-la-Neuve
Peter Dendooven, KVI-CART Groningen
Denis Dauvergne, Institut de Physique Nucléaire de Lyon
Magdalena Rafecas, Universitat de València
Se Byeong Lee, Proton Therapy Center, Goyang
Paulo Crespo, Univ. of Coimbra
Frank Verhaegen, Maastricht Clinic, Maastricht

Advisory Board

Michael Baumann, OncoRay
Wolfgang Enghardt, OncoRay
Fine Fiedler, HZDR
Andreas Wagner, HZDR
Peter Kaever, HZDR

