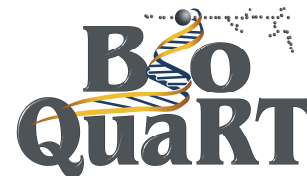




COST Action MP1002 Nanoscale Insights into Ion Beam Cancer Therapy (NanoIBCT)



European Radiation Dosimetry Group e. V.
WG 6 Computational Dosimetry



EMRP Project Biologically Weighted
Quantities in Radiotherapy

First announcement

International Workshop "Challenges in micro- and nanodosimetry for ion beam cancer therapy (MiND-IBCT)"

Wiener Neustadt (Austria), 07-09 May 2014

Invitation

In the fields of micro- and nanodosimetry, measurement and simulation techniques are developed for a characterization of charged particle track structure in terms of measureable physical quantities that are related to the radiation quality (i.e. biological effectiveness) of ion beams.

This development of dosimetric concepts and of measurement techniques for their realization is the straightforward translational research for an uptake of the fundamental investigations performed within

the NanoIBCT action into practical application in clinics.

With the increasing number of carbon ion beam therapy facilities that have been or will be going into operation in Europe, the development of clinical protocols is imminent and a meeting bringing together the leading experts in micro- and nanodosimetry to discuss the optimum contribution of the two fields to this development is more than timely.

Scope of the workshop

The workshop is intended to provide a forum for scientific exchange on the following topics related to ion beam therapy:

- Microdosimetry
- Nanodosimetry
- Track structure modelling
- Biophysical models linking track structure and biological effects

In addition to session with presentations reporting on the state of the art and recent progress in the respective fields, it is also planned to have ample time for discussions, covering a broad range of topics from fundamental aspects to specific technical issues or novel ap-



proaches and ideas. To this end, the programme foresees dedicated discussion sessions in which participants are invited to give short presentations sketching their problem or idea such as to stimulate the discussion.

Suggested focus areas for the discussions are:

- What are the relevant properties of track structure that we need to measure and/or simulate in order to characterize the biological effectiveness of ion radiation?
- What level of accuracy can we achieve, what level of accuracy is needed?
- How to assess the uncertainty of micro- and nanodosimetric measurements and simulations?
- Biophysical models for linking track structure and biological effects.
- What are the most promising approaches for introducing micro- and nanodosimetric quantities into clinical practise?

Invited speakers

Stefano Agosteo	PoliMi	Italy	(tbc)
Ana Belchior	IST-ID	Portugal	(tbc)
Francesca Ballarini	INFN-PV	Italy	(tbc)
Marion Bug	PTB	Germany	
Gonzalo Cabal	LMU	Germany	(tbc)
Sabina Chiriotti	SCK.CEN	Belgium	(tbc)
Valeria Conte	INFN-LNL	Italy	(tbc)
Marie Davidkova	NPI	Czech Republic	(tbc)
Thomas Friedrich	GSI	Germany	(tbc)
Werner Friedland	HMGU	Germany	(tbc)
Elisabetta Gargioni	UKE	Germany	(tbc)
Susanna Guatelli	CMRP	Australia	(tbc)
Gerhard Hilgers	PTB	Germany	
Davide Moro	INFN-LNL	Italy	(tbc)
Giulio Magrin	MedAustron	Austria	(tbc)
Hugo Palmans	NPL	UK	(tbc)
Kevin Prise	QUB	UK	(tbc)
Stanislaw Pzona	NCBJ	Poland	(tbc)
Hans Rabus	PTB	Germany	
Andrey Solov'yov	U Frankfurt	Germany	(tbc)
Emanuele Scifoni	HIT	Germany	(tbc)
Carmen Villagrasa	IRSN	France	
Jan Wilkens	MRI	Germany	(tbc)



Workshop Programme

	Wednesday, 07 May	Thursday, 08 May	Friday, 09 May	
09:00-09:30	Registration and Reception	Lecture Session II	Lecture Session IV	09:00-09:30
09:30-10:00				09:30-10:00
10:00-10:30				10:00-10:30
10:30-11:00		Coffee break	Coffee break	10:30-11:00
11:00-11:30		Discussion Session II	Discussion Session IV	11:00-11:30
11:30-12:00				11:30-12:00
12:00-12:30				12:00-12:30
12:30-13:00		Lunch	Lunch	12:30-13:00
13:00-13:30	Opening		13:00-13:30	
13:30-14:00	Lecture Session I	Lecture Session III	Outlook and Conclusions Session	13:30-14:00
14:00-14:30				14:00-14:30
14:30-15:00				14:30-15:00
15:00-15:30		End of Workshop	15:00-15:30	
15:30-16:00	Coffee break	Coffee break		15:30-16:00
16:00-16:30	Discussion Session I	Discussion Session III		16:00-16:30
16:30-17:00				16:30-17:00
17:00-17:30				17:00-17:30
17:30-18:00				17:30-18:00

Conference Dinner
location t.b.a.

Scientific Committee

Hans Rabus (PTB, Germany)
Hugo Palmans (NPL, UK)
Reinhard Schulte (LLU, USA)
Carmen Villagrasa (IRSN, France)
Andrey Solov'yov (U Frankfurt, Germany)
Kevin Prise (QUB, UK)
Thorsten Schneider (PTB, Germany)
Giulio Magrin (MedAustron, Austria)

Organising Committee

Thorsten Schneider (PTB, Germany)
Heinke Harms (PTB, Germany)
Sandra Prondzinski (PTB, Germany)
Giulio Magrin (MedAustron, Austria)
Petra Wurzer (MedAustron, Austria)

Contact: heinke.harms@ptb.de



EURADOS

Bio
QuaRT

Venue and transportation

The workshop MiND-IBCT takes place at

EBG MedAustron GmbH
Marie Curie-Straße 5
A-2700 Wiener Neustadt
Austria

Wiener Neustadt is about 60 km south of Vienna. Directions to MedAustron will be given in the second announcement.

Accommodation

A list of hotels will be distributed with the second announcement.

Local contact

Giulio Magrin
phone +43 2622 26 100 – 611
mobile +43 664 73 460 479
fax +43 2622 26 100 319
email giulio.magrין@medaustron.at

Registration

Those interested in participation in the workshop are requested to preregister online via www.ptb.de/nanocord/MiND-IBCT.html.

Note: The second announcement will only be sent to preregistered persons.

Conference fee

The fee will be set with the second announcement and will include participation in the workshop, coffee breaks, lunches (on Wed, Thu and Fri) and the conference dinner (on Thu).

Enquiries on registrations & payments:

Heinke Harms
Bundesallee 100
D-38116 Braunschweig
Phone: +49 (0)531 592 6501
Fax: +49 (0)531 592 6505
Email: Heinke.Harms@ptb.de