

EMPIR  
Joint  
Research  
Project

# Metrology for clinical implementation of dosimetry in molecular radiotherapy

## EUROPEAN WORKSHOP ON THE CLINICAL IMPLEMENTATION OF DOSIMETRY FOR MOLECULAR RADIOTHERAPY

National Physical Laboratory, Teddington, Middlesex, TW11 0LW, UK  
**Monday 20<sup>th</sup> -Tuesday 21<sup>st</sup> May 2019**

### Workshop agenda and details

#### THE WORKSHOP

The workshop will present the final results of the three year EMPIR funded project MRTDosimetry. New protocols for comparison of quantitative imaging and commissioning of a Molecular Radiotherapy (MRT) dose calculation platform will be presented in the context of multi-centre comparison exercises performed within the project.

The outputs from the project will be put into context with presentations covering activity measurement, quantitative imaging and dosimetry in a clinical environment, in support of clinical trials and from a commercial prospective. The latest guidance on dosimetry and quantitative imaging for MRT from the EANM, MIRD and ICRP will be presented for discussion.

#### REGISTRATION

The workshop is free to attend but registration is required.

Please register for the meeting at,  
<https://mrt dosimetry2019.eventbrite.co.uk>

## AGENDA

Day 1: Monday 20 <sup>th</sup> May 2019	
09:00	<i>Registration and Coffee (NPL Reception)</i>
10:00	<b>Welcome</b> TBC (National Physical Laboratory, United Kingdom) <i>(10 min)</i>
10:10	<b>Introduction to the MRTDosimetry project and workshop</b> Andrew Robinson - National Physical Laboratory, United Kingdom <i>(20 min)</i>
<b>Session 1: Activity Measurement</b>	
10:30	<b>Primary standardisation and nuclear data for Ho-166</b> TBC <i>(25 min)</i>
10:55	<b>New branching ratio for Y-90 positron emission</b> TBC <i>(25 min)</i>
11:20	<b>New activity transfer instrument</b> TBC <i>(25 min)</i>
11:45	<b>Clinical use of secondary standard ion chamber</b> Steve Jeans – The Christie NHS Foundation Trust, United Kingdom <i>(25 min)</i>
12:10	<b>Activity calibration for clinical trials?</b> TBC <i>(20 min)</i>
12:30	<i>Lunch (NPL Reception)</i>
<b>Session 2: Quantitative Imaging</b>	
13:30	<b>Teaching Seminar: “Calibration and verification of QI”</b> Michael, Lassmann and Johannes Tian-Gia, University of Würzburg, Germany <i>(60 min)</i>
14:30	<b>Monte Carlo simulation of SPECT imaging</b> Gunjan Kayal – SCK.CEN, Belgium and INSERM, France <i>(45 min)</i>
15:15	<b>Camera intercomparison for Lu-177 quantification in the Netherlands</b> Steffie Peters - Radboud university medical center, The Netherlands <i>(20 min)</i>
15:35	<b>Imaging and dosimetry for Ho-166 microspheres</b> Gerrit van de Maat - Qirem Medical <i>(20 min)</i>
15:55	<i>Coffee break (NPL Reception)</i>
<b>Session 3: Dosimetry for MRT</b>	
16:30	<b>Teaching Seminar: “Commissioning of a dosimetry platform for MRT”</b> Jill Tipping and Nick Calvert, The Christie NHS Foundation Trust, United Kingdom <i>(60 min)</i>
17:30	<b>Primary standard of Absorbed dose</b> Vere Smyth - National Physical Laboratory, United Kingdom <i>(20 min)</i>
18:00	<i>Drink reception and networking at NPL</i>
19:30	<i>End of the first day</i>

<b>Day 2: Tuesday 21<sup>st</sup> May 2019</b>	
<b>Session 4: Dosimetry for MRT (cont.)</b>	
09:00	<b>External dosimetry auditing for multicentre clinical trials</b> Jan Taprogge - The Royal Marsden, United Kingdom <span style="float: right;">(30 min)</span>
09:30	<b>NTCP Uncertainties</b> Maurice Cox - National Physical Laboratory, United Kingdom <span style="float: right;">(20 min)</span>
09:50	<b>Hermes Medical Solutions dosimetry systems</b> Helena McMeekin – Hermes Medical Solutions <span style="float: right;">(15 min)</span>
10:05	<b>Dosisoft dosimetry system</b> Sébastien Vauclin - DOSisoft <span style="float: right;">(15 min)</span>
10:20	<b>QDose dosimetry system</b> Tobias Meyer – ABX-CRO <span style="float: right;">(15 min)</span>
<b>10:45</b>	<i>Coffee break (NPL Reception)</i>
<b>Session 5: International Guidelines</b>	
11:15	<b>EANM</b> Mark Konijnenberg – Erasmus MC, The Netherlands <span style="float: right;">(30 min)</span>
11:45	<b>MIRD</b> Robert Hobbs - Johns Hopkins Medicine Department of Radiation Oncology, USA <span style="float: right;">(30 min)</span>
12:15	<b>ICRP</b> Glenn Flux - The Royal Marsden Hospital & Institute of Cancer Research, United Kingdom <span style="float: right;">(30 min)</span>
<b>13:00</b>	<i>Lunch (NPL Reception)</i>
<b>Session 6: Uptake of the project outputs and way forward</b>	
14:00	<b>Impact and uptake of the project</b> Vere Smyth - National Physics Laboratory, United Kingdom <span style="float: right;">(30 min)</span>
14:30	<b>Database of reference images and DICOM conversion tool</b> Jérémie Dabin, SCK.CEN, Belgium and Andrew Robinson, - National Physical Laboratory, UK <span style="float: right;">(20 min)</span>
14:50	<b>Scientific advisor comments</b> Irène Buvat, INSERM/CEA, France Markus Luster, Department of Nuclear Medicine, University of Marburg, Germany <span style="float: right;">(20 min)</span>
15:10	<b>Roundtable discussion</b> <span style="float: right;">(50 min)</span>
16:00	<b>End of the workshop</b>