

## Local Organizing Committee

### Marco D'Arienzo

ENEA - National Institute of Ionizing Radiation  
Metrology

C.R. Casaccia, Via Anguillarese, 301 - S.M. Galeria I-  
00123 Roma - ITALY

e-mail: [marco.darienzo@enea.it](mailto:marco.darienzo@enea.it)

Tel: +39 (0)6 30484118

Mob: +39 (0)6 3477518339

### Marco Capogni

ENEA - National Institute of Ionizing Radiation  
Metrology

C.R. Casaccia, Via Anguillarese, 301 - S.M. Galeria I-  
00123 Roma - ITALY

e-mail: [marco.capogni@enea.it](mailto:marco.capogni@enea.it)

Tel: +39 (0)6 30486628



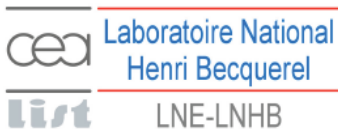
Agencia nazionale per le nuove tecnologie,  
l'energia e lo sviluppo economico sostenibile



National Physical Laboratory



Physikalisch  
Technische  
Bundesanstalt



Laboratoire National  
Henri Becquerel

list LNE-LNHB



Dutch  
Metrology  
Institute

Metrology for molecular radiotherapy (MetroMRT) is a collaborative project funded by the European Community through the European Metrology Research Programme (see <http://projects.npl.co.uk/metromrt/>). The consortium consists of 6 national metrology laboratories together with 17 clinical research centres from 8 different countries. It started on 1 June 2012 and will run for 3 years.

Molecular radiotherapy (MRT) is routinely prescribed on the basis of administered activity of the therapeutic radiopharmaceutical. However uptake and retention vary from patient to patient and therefore the individual dose to the target can vary between patients given the same administered activity. Recent research indicates the range can be up to two orders of magnitude, which is particularly alarming from the point of view of radiation protection. At the low extreme, the patient gains negligible therapeutic benefit. At the high extreme, the patient receives more radiation than is needed to treat the tumour.

The overall aim of the MetroMRT project is to develop methods of calibrating and verifying clinical dosimetry in MRT. By creating a dosimetry protocol (similar to that used in external beam radiotherapy) it will be possible to prescribe standard procedures of known accuracy, and to predict the benefits to the patient and the health system as a whole from widespread introduction of individual patient dosimetry.

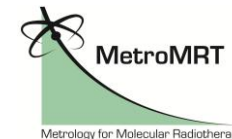
The workshop aims at bringing together metrological institutes and key stakeholders to discuss about calibration issues and accuracy verification in quantitative molecular imaging. Further, the workshop aims to fulfill the following objectives:

- share information between NMI, clinical facilities and companies developing quantitative imaging software;
- learn of the current research activities;
- identify possible information gaps between metrological institutes and clinical partners that perform MRT on a clinical basis.

<http://projects.npl.co.uk/metromrt/>



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## Metrology for Molecular Radiotherapy

### Calibration Activities and Accuracy Verification in Quantitative Imaging

July, 5<sup>th</sup> 2013

Open to partners, users and stakeholders

<http://tinyurl.com/MetroMRT>



ENEA Headquarters

Lungotevere Thaon di Revel, 76

Via Giulio Romano, 41

Rome - Italy



European Association of National Metrology Institutes

EMRP  
European Metrology Research Programme  
Programme of EURAMET

The EMRP is jointly funded by the EMRP participating countries within EURAMET and the European Union.



## LOGISTIC INFORMATION

**Venue** - Headquarters of ENEA (Italian National Agency for New Technologies, Energy and Sustainable Economic Development), Via Giulio Romano, 41 - Rome - Italy.

Please find information about getting to ENEA's headquarters at:

<http://tinyurl.com/MetroMRT>

**Accommodation** - We have established a fare agreement with the following hotels (about 10 minutes walking distance from the workshop venue):

1) Glori Hotel (\*\*\*\*)

<http://www.gruppoloan.it/it/vg/home.html>

2) Best Western Hotel Astrid Roma (\*\*\*)

<http://www.hotelastrid.com/>

3) B&B A Casa di Lia,

<http://www.acasadilia.net/>

4) B&B Auditorium House,

<http://www.auditoriumhouse.com/>



Friday, July 5 <sup>th</sup>		
9.30	Welcome	Giovanni Lelli, ENEA Commissioner Pierino De Felice, ENEA-INMRI Director
9.45	MetroMRT Project presentation	Vere Smyth, Project Coordinator
<b>Session: Developing a strategy for calibrating quantitative imaging</b>		
10.00	Gamma camera calibration issues	Matthew Guy
10.30	Determination and implications of sources of errors in molecular radiotherapy dosimetry	Manuel Bardiès
10.50	Open issues concerning gamma camera calibrations with Lu-177	Carlo Chiesa, Istituto Tumori Milano
11.10 Coffee break		
11.45	SPECT/CT-based activity quantification	Katarina Sjögren Gleisner
12.15	How well can we quantify images with a commercial SPECT/CT system in molecular radiotherapy?	Michael Lassmann
12.45	Quantitative SPECT reconstruction – techniques and procedures in the QSPECT software	Hidero Iida
13.15 Lunch		
<b>Session: Quantitative Imaging in MRT with <sup>90</sup>Y microspheres</b>		
14.30	Treatment planning of <sup>90</sup> Y glass sphere radioembolization: Comparison of a homemade code and PHILIPS Stratos for dosimetry	Carlo Chiesa, Istituto Tumori Milano
15.00	Radioembolisation: <sup>90</sup> Y PET and the potential to achieve personalised dosimetry	Michael Tapner, SIRTEX
15.30 Coffee break		
<b>Session: Quantitative Imaging commercial software</b>		
16.00	Stratos - a software for 3D voxelized dosimetry	Timo Paulos, PHILIPS
16.30	Siemens quantitative imaging software	Frederic Schoenahl, SIEMENS
17.00	Open discussion	
17.30	Concluding Remarks	

July, 5th 2013

ENEA Headquarters - Rome - Italy

## WORKSHOP INFORMATION

**Registration** - To attend the workshop we kindly ask you to complete an online registration at the following webpage:

[http://www.enea.it/en/events/metromrt\\_5jul13/Rome](http://www.enea.it/en/events/metromrt_5jul13/Rome)

**Lunch and Dinner:** Participants may have their lunch at ENEA's canteen (7€/person). A social dinner is planned. We have established a fare agreement with "Le Club" restaurant, Via Flaminia 305 (price for dinner 30€/person, wine not included). Both bookings have to be confirmed at the following registration webpage:

[http://www.enea.it/en/events/metromrt\\_5jul13/Rome](http://www.enea.it/en/events/metromrt_5jul13/Rome)

**Transportation** - Instructions on how to reach the ENEA headquarters are provided on the website:

<http://tinyurl.com/MetroMRT>

**Participation fee** - No registration fee is requested for the workshop. Participants are expected to pay their own travel and accommodation expenses.

Please find additional information about the workshop at the following webpages:

Workshop website

<http://tinyurl.com/MetroMRT>

ENEA Webpage

[http://www.enea.it/en/events/metromrt\\_5jul13/Rome](http://www.enea.it/en/events/metromrt_5jul13/Rome)

Further information about the project may be found at:

<http://projects.npl.co.uk/metromrt>