

## Intention

The intention of the training school is to provide theoretical and hands-on knowledge on the  $^{68}\text{Ge}/^{68}\text{Ga}$  radionuclide generator mainly, but also on the  $^{44}\text{Ti}/^{44}\text{Sc}$  radionuclide generator. The  $^{68}\text{Ge}/^{68}\text{Ga}$  radionuclide generator is increasingly relevant for the development of new molecular imaging probes, both for fundamental research as well as for routine clinical diagnosis using PET/CT. The  $^{44}\text{Ti}/^{44}\text{Sc}$  radionuclide generator provides a longer-living daughter nuclide with potential for imaging targeting processes of slower biological kinetics and is a source of quantifying individual radiation doses for analogue radiotherapeutics labelled with trivalent therapeutic radiometals.

The concept of the training school is to combine both theory and practice for several topics, such as generators, generator post-processing, ligands and labelling, automatisations, quality control, GMP and regulatory aspects. To bridge the PET-generators with endoradiotherapy, labelling will be trained with  $^{177}\text{Lu}$  in addition.

Commercial companies involved in production of generators and syntheses modules, modules synthesising labelled compounds or in synthesising ligands will demonstrate state-of-the art products.

The training school invites colleagues from the COST action to meet the experts and to obtain detailed training on the generators. Participants shall have own background in working with radioactive sources and shall provide own personal radiation dosimeter or adequate documents prior to start hands-on training at the Institute of Nuclear Chemistry of the University of Mainz, Germany.

## Registration

is due to August 24, 2010 and shall be sent to Prof. Dr. Frank Rösch via e-mail [frank.roesch@uni-mainz.de](mailto:frank.roesch@uni-mainz.de).

## Hotel reservation

will be supported by the local host at the InterCityHotel Mainz  
Binger Straße 21  
55131 Mainz  
Tel +49-(0)6131-588510  
[www.mainz.intercityhotel.de](http://www.mainz.intercityhotel.de)



## COST Action BM0607 Targeted Radionuclide Therapy (TRNT)

# 2<sup>nd</sup> Training School on PET-radionuclide generators for trivalent metals: $^{68}\text{Ge}/^{68}\text{Ga}$ and $^{44}\text{Ti}/^{44}\text{Sc}$

Institute of Nuclear Chemistry  
Fritz-Strassmann-Weg 2  
Johannes Gutenberg-University Mainz  
Germany  
September 14 – 16, 2010

## Programme

Tuesday, Sep. 14		
08:30-10:00	Formalities	
10:30-11:30	Theory: Generators <i>"Radionuclide generators for PET/CT imaging"</i> <i>"The <sup>68</sup>Ge/Ga generator: <sup>68</sup>Ge-production and generator designs"</i>	F Roesch, Mainz F Roesch
11:30-12:00	Theory: Ligands	M Fani, Freiburg
13:00-17:30	Praxis: Generators	W Breeman, Rotterdam L v/d Vliet, Veenstra F Rösch
18:00-	Come-together: Praxis: <i>Wine tasting</i>	
Wednesday, Sep. 15		
08:30-10:00	Theory: post-processing <i>"Eluate fractionation procedure"</i> <i>"Purification of Ga-68 by anion-exchange for labelling of DOTA-derivatised peptidic ligands including automatisaton"</i> <i>"Eluate processing via cation exchange chromatography procedure"</i>	W Breeman L v/d Vliet F Roesch
10:30-13:00	Praxis: post-processing	W Breeman, L v/d Vliet, F Rösch
14:00-14:30	Theory: specific activities, dosimetry, waste: <i>"When and why are high specific activities required?"</i>	W Breeman

## Programme

14:30-15:00	Theory: QC/QA in the hospital radiopharmacy environment: <i>"The requirements for quality assurance and QC of generators in the Radiopharmacy"</i>	R Mikolajczak, Warsaw
15:00-15:30	Theory: Regulatory issues related to investigational radiopharmaceuticals: <i>"Clinical use of non-licensed radiopharmaceuticals: regulatory issues"</i>	A Verbruggen, Leuven
16:00-18:00	Praxis: labelling + analytics	W Breeman, R Knopp, R Mikolajczak, F Rösch
Thursday, Sep. 16		
08:30-10:00	Theory: Automation in generator elution and labelling including GMP aspects <i>"Ga-Generator: GMP vs. non-GMP, why it is necessary to register a generator"</i> <i>"Fully automated synthesis of <sup>68</sup>Ga, <sup>111</sup>In, <sup>90</sup>Y and <sup>177</sup>Lu DOTA conjugated peptides"</i> <i>"With Modular-Lab from research to routine: Full flexibility meets GMP, GAMP5"</i>	DB Becker, Berlin R Knopp, Berlin R Knopp
10:30-13:00	Praxis: automatisaton	all
14:00-15:30	Round table discussion	all



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