

1st Bergen meeting on PET chemistry and applications

Auditorium 2, Science building at University of Bergen, May 19, 2011

Organized by Department of Chemistry at University of Bergen



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Program

09:30 Registration & coffee

10:00 Welcome

Professor Hans-René Bjørsvik
Department of Chemistry
University of Bergen

Introduction / Opening

Dean Dag Rune Olsen
Faculty of Mathematics and Natural
Sciences, University of Bergen

10:15 **Centre for Nuclear Medicine and PET: Possibilities and expectations**

Chief Radiochemist / Assoc. prof II
Tom Christian Holm Adamsen
Centre for Nuclear Medicine and PET
Haukeland University Hospital.
Department of Chemistry
University of Bergen.

11:00 **Clinical PET-CT: What more?**

Assoc. prof. Martin Biermann
University of Bergen and
Acting medical chief, PET-centre
Haukeland University Hospital

11:45 Coffee break

12:00 **Imaging of renal function using a novel PET-probe**

Professor Olav Tenstad
Institute of Biomedicine
University of Bergen

12:45 Break / Lunch

13:30 **Optimization and simplification of a fully automated synthesis process for manufacture of the PET tracer**

¹⁸F-Fluciclatide using FASTlab[®]
Research scientist Torgrim Engell
GE Healthcare, Oslo

14:15 **Positron Emission Tomography (PET) Radiochemistry and Imaging in Aberdeen: Tradition and Innovation**

Professor Matteo Zanda
Institute of Medical Sciences, College of
Life Sciences and Medicine, University of
Aberdeen, Aberdeen, Scotland (UK)

15:00 End of meeting

Abstracts

10 : 15

Centre for Nuclear Medicine and PET: Possibilities and Expectations

Tom Christian Holm Adamsen^{1,2}

¹Centre for Nuclear Medicine and PET, Dept. of
Radiology, Haukeland University Hospital,

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The Centre for Nuclear Medicine and PET was established in 2005 because of a grand philanthropic donation from Trond Mohn. With the donation to both Haukeland University Hospital and the University of Bergen, research is to play a big role in the utilisation of this technology.

The past, present and future of nuclear medicine, and PET in particular, relies on solid and broad range of knowledge. The research and design pipeline for new tracers needs cooperation from medicine, biology, physics and mathematics to mention a few. However, the search for the optimal imaging probe is futile without broad knowledge in chemistry and involvement from chemists. Chemistry is in such way both the driving force, and perhaps the bottleneck, for new tracer development.

The PET-center at Haukeland University Hospital has a dedicated area for both GMP-production, as well as for research. Our own cyclotron can produce all relevant PET-isotopes, and can be expanded for solid target irradiation. We also hope to install a small animal imaging PET/CT before the end of 2012.

In March 2011 we were granted a licence to produce [¹⁸F]FDG for clinical use from the Norwegian Medicinal Agency. The time is now ripe to expand our tracer portfolio and to develop new molecular probes for PET-imaging.

Due to the expected increase in demand for knowledge in PET, we will offer a course in radiochemistry and radioactivity, as well as a more pharmaceutical/medicinal chemistry focused course in medical imaging. The latter drawing on expertise from various related fields, in addition to chemistry.

11 : 00

Clinical PET-CT: What more?

Martin Biermann^{1,2}

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University Hospital and ²Section for Radiology,
Institute for Surgical Sciences, University of Bergen

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The approval of our own F-18-FDG-production facilities by the Norwegian Drug Agency in March 2011 marked a big milestone in the development of our centre – but is FDG-PET-CT enough to meet the challenges posed by modern medicine?

