

Saturday  
28 May 2005

Sunday  
29 May 2005

**09.00 - 11.00 Radionuclide Production and Radiochemistry**

**Chairmen: Kjell Någren, Olof Solin**

*09.00 Dr. Andrew Roberts, Manchester, UK:*  
High power targets for PET-radionuclide production

*09.30 Prof. Kazutoshi Suzuki, Chiba, Japan:*  
Development of automated devices for the production of [C-11]-radiopharmaceuticals with high specific radioactivity

*10.00 Prof. Frédéric Dollé, Orsay, France:*  
Methods in fluorine-18-labeling of PET-radiotracers with special emphasis on [18F]-fluoropyridines

Oral free presentations:

*10.30 Toru Inomata, Suita, Japan:*  
Reduction of radioactivity in a small cyclotron for PET

*10.45 Frank Wuest, Dresden, Germany:*  
Synthesis and evaluation of [11C]AL-438 as a nonsteroidal glucocorticoid receptor ligand for imaging of brain glucocorticoid receptors

11.00 - 11.45 Coffee, Poster exhibition, Commercial exhibition

**11.45 - 13.45 Instrumentation**

**Chairmen: Mika Teräs, Heikki Minn**

*11.45 Dr. Sibylle Ziegler, Munich, Germany:*  
Tools for High Resolution PET: PET and PET/CT systems

*12.15 Prof. Adriaan Lammertsma, Amsterdam, The Netherlands:*  
Dedicated brain scanners - opportunities and pitfalls

*12.45 Prof. Sasa Mutic, St.Louis, USA:*  
Radiation therapy planning with PET/CT

Oral free presentations

*13.15 Riku Klén, Turku, Finland:*  
Rigid body registration of PET images

*13.30 Hidehiro Iida, Suita City, Japan:*  
Image-based motion correction in quantitative assessment of myocardial blood flow using H<sub>2</sub><sup>15</sup>O and PET

13.45 - 15.00 Lunch and coffee, Poster exhibition, Commercial exhibition

**15.00 - 16.30 Modeling**

**Chairmen: Vesa Oikonen, Ulla Ruotsalainen**

*15.00 Prof. Gitte M. Knudsen, Copenhagen, Denmark:*  
Emission tomographic methods for pharmacological brain research

*15.30 Dr. Vincent Cunningham, GSK, Middlesex, UK:*  
Reference tissue input models

Oral free presentations

*16.00 Nobuyuki Kudomi, Suita, Japan:*  
Rapid CBF/CMRO<sub>2</sub> measurement by means of single PET scan with dual tracer

*16.15 Ulla Ruotsalainen, Tampere, Finland:*  
Could neuroinformatics methods help in PET modeling?

18.00 - 20.00 Get-Together Party and Registration

18. 15 Sauna Party

## Monday 30 May 2005

### 08.00 - 10.00 Preclinical and Molecular Imaging **Chairmen: Merja Haaparanta-Solin, Anne Roivainen**

08.00 Dr. Donald Burns, Merck Research Laboratories, West Point, USA:

Preclinical PET imaging in CNS drug discovery and development

08.30 Dr. Ian Wilson, Turku Imanet, Turku, Finland:  
Preclinical evaluation of PET tracers

09.00 Prof. Andreas Jacobs, Cologne, Germany:  
Molecular imaging in oncology

#### Oral free presentations:

09.30 Peter Brust, Leipzig, Germany:  
Aspects of radiotracer transport across the blood-brain barrier

09.45 Tove Grönroos, Turku, Finland:  
Biodistribution of the NK1 receptor tracer [F-18]SPA-RQ in guinea pig

10.00 - 11.30 Coffee and visit to the PET Centre, Poster exhibition, Commercial exhibition

### 11.30 - 13.30 Cardiology and Metabolism **Chairmen: Juhani Knuuti, Pirjo Nuutila**

11.30 Dr. Patricia Iozzo, Turku, Finland and Pisa, Italy:  
New trends and tools in metabolic research

12.00 Dr. Frank Bengel, Munich, Germany:  
Molecular imaging in cardiology

12.30 Prof. Philipp Kaufmann, Zurich, Switzerland:  
PET and multislice-CT: The future of nuclear cardiology?

#### Oral free presentations:

13.00 Kari Kalliokoski, Turku, Finland:  
Nitric oxide and prostaglandins contribute to the regulation of blood flow heterogeneity in human skeletal muscle during exercise

13.15 Riikka Lautamäki, Turku, Finland:  
Rosiglitazone improves myocardial glucose uptake in patients with type 2 diabetes and coronary artery disease

13.30 - 15.00 Lunch and coffee, Poster exhibition, Commercial exhibition

### 15.00 - 17.00 Neurotransmission **Chairmen: Jarmo Hietala, Juha Rinne**

15.00 Prof. Robert Innis, Bethesda, USA:  
PET imaging of rodents to examine treatment with stem cells and traditional medications

15.30 Prof. Lars Farde, Stockholm, Sweden:  
Imaging of specific neurotransmitter systems: beyond receptors

16.00 Prof. David Brooks, London, UK:  
Imaging of neuroinflammation

#### Oral free presentations

16.30 Jussi Hirvonen, Turku, Finland:  
Brain dopamine D1 receptors in twins discordant for schizophrenia

16.45 Akihiro Takano, Chiba, Japan:  
Application of receptor occupancy for the re-evaluation of clinical dose

19.00 Banquet at Turku Castle

## Tuesday 31 May 2005

### Drug Development Minisymposium (Organized jointly by Turku PET centre and Turku Imanet)

#### 08.00 - 09.30 Possibilities of Using PET in Modern Drug Development **Chairman: Harry Scheinin**

08.00 Prof. Lars Farde, Stockholm, Sweden:  
PET in drug development - General principles

08.30 Dr. Timothy McCarthy, Pfizer Inc., Groton, USA:  
Role of PET in therapeutic drug development

09.00 Dr. David Mozley, Merck Research Laboratories, West Point, USA:  
The value of weaving PET into new neuropsychiatric drug development

09.30 - 10.00 Coffee, Poster exhibition, Commercial exhibition

#### 10.00 - 11.30 Regulatory and Business Perspectives **Chairman: Ian Wilson**

10.00 Dr. Mats Bergström, Novartis, Basel, Switzerland:  
The microdosing concept - current understanding

10.30 Prof. Robert Innis, Bethesda, USA:  
Low dose studies: need for data-driven analysis

11.00 Dr. Alex Gibson, GE Healthcare, Amersham, UK:  
Radiochemistry considerations in the commercialisation of PET radiopharmaceuticals

11.30 - 13.00 Lunch and coffee, Poster exhibition, Commercial exhibition

#### 13.00 - 14.00 Practical Examples of Using PET in Drug Development **Chairman: Juha Rinne**

13.00 Dr. Antero Kallio, BioTie, Turku, Finland:  
Nalmefene

13.15 Dr. Donald Burns, Merck Research Laboratories, West Point, USA:  
Aprepitant: Emend® and [F-18]SPA-RQ

13.30 Dr. Andrew Zambanini, GSK, Harlow, Essex, UK:  
Rosiglitazone

13.45 Dr. Gill Farrar, GE Healthcare, Amersham, UK:  
Challenges in the development of novel PET agents

#### 14.00 - 15.00 Round Table Discussion: Future Role of PET in drug discovery and development

**Chairmen: Harry Scheinin, Kari Aranko**  
**Participants: Lars Farde, Robert Innis, Antero Kallio, Bengt Långström, Timothy McCarthy**

15.30 Closing of the Symposium