



## Venue

The course will be given at the Neurobiology Research Unit (www.nru.dk), Rigshospitalet, Copenhagen University Hospital, Denmark. Location will be Rockefeller building 6931 (Google maps: Juliane Maries Vej 26, DK-2100 Copenhagen).



Neurobiology Research Unit, Rigshospitalet

## **Cover Photo**

Illustration of exponential curve fitting, PET and MR image analysis, compartment modeling, and estimation of parameters in kinetic models from extracted time activity curves which all is part of the course.

# Registration

### Fee

- INMiND members: 250€
- Academic institutions: 500€
- Industry: 1000€

## **Deadline**

January 30, 2015

## **Number of participants**

- 4 participants minimum (below which the training course will be cancelled)
- 12 participants maximum

For registration please contact:

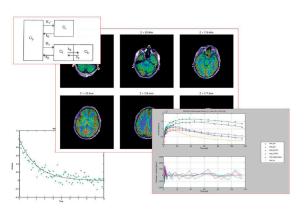
## **INMiND Training Office**

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# **INMIND**Training Course



Basic Kinetic Modeling in Molecular Imaging

March 2-6, 2015 Copenhagen, Denmark



Imaging of Neuroinflammation in Neurodegenerative Diseases

# **Training Site**

The training site at NRU covers a molecular imaging research centre doing research in PET and MR brain imaging together with a laboratory for quantification of receptor binding using kinetic modelling techniques. Applications cover a wide spectrum of fields including projects in aging and mood disorders by looking at different aspects of the serotonin receptor system in the human brain.

Lectures will be given by scientists from the Neurobiology Research Unit, Rigshospitalet

Copenhagen (RH-NRU) as well as scientists from other Copenhagen Institutions working within the research area.



Søerne - The Lakes in Copenhagen.

# **Training Objectives**

The training course aims to provide the participants with a detailed theoretical and practical knowledge of tracer kinetic principles in physiology, nuclear medicine and magnetic resonance imaging (MRI).

## **Duration**

5-days (33 hours) teaching packages in small groups

#### **Methods**

80% lectures and 20% practical work

## Lectures content and practical work

- basic mathematics, introduction to SPECT, PET, MRI and MATLAB, steady state, indicator diffusion, Fick's principle, clearance, extraction, mean transit time, convolution and impulse response, residue detection, Kety-Schmidt method, receptor kinetics and quantification, models of glucose consumption (Sokolof), water exchange and perfusion measurement.
- The participants are encouraged to present and discuss their own projects.

## **Credits**

Up to 3 ECTS points can be given to the course participants by their home university

# **Teachers**

Lectures will be given by scientists from the Neurobiology Research Unit, Rigshospitalet, Copenhagen University Hospital, Denmark.

### **Course Leader**

Dorthe GIVARD
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 Email: dorthe@nru.dk

#### Scientific Advisor

Gitte MOOS KNUDSEN

For further details on the course please visit www.uni-muenster.de/INMiND/training



