PMOD Technologies
Sumatrastrasse 25
CH-8006 Zürich, Switzerland
Telephone +41 44 350 22 37
Telefax +41 44 350 22 39
info@pmod.com, www.pmod.com

# PMOD Training Workshop

October 22-23, 2008
Tokyo, Japan

## Overview

In order to meet the numerous requests of PMOD users for training and exchange of experience, PMOD will organize on October 22-23, 2008 in Tokyo a two days PMOD Training Workshop. After the workshop, on October 24-26, 2008, the 48th Annual Scientific Meeting of the Japanese Society of Nuclear Medicine will be held in Chiba, where PMOD will participate as an exhibitor.

The aim of the workshop is to teach the participants the effective use of the major PMOD tools. Brief presentations will outline the principles behind the different types of data analysis. They will be followed by live demonstrations. Finally, ample time will be available for individual practice based on a workbook and for interacting with the trainers.

The participants are required to bring their own notebooks. They will obtain a USB flash key with the latest PMOD version as well as training data sets. PMOD can be started directly from the key, such that the configuration of the notebook will remain untouched. As a courtesy, the key can be taken home and will work for another month. This will give the participants the opportunity to complete their studies if needed, and to try the PMOD tools on their own data.

### *Educational Objectives*

Upon completion of the training the participants will be able to:

- Exploit the wealth of image presentations and layouts
- Apply the filtering and image processing tools
- Effectively define Volumes-of-Interest (VOIs) using manual and automatic methods and calculate their statistics
- Calculate time-activity curves and submit them to the kinetic modeling tool
- Understand the different types of models (compartment, graphical, reference) and apply them in the general and pixel-wise modeling tool
- Assess the identifiability of kinetic model parameters
- Match multi-modal images of a single patient by manual and automatic methods
- Spatially normalize a brain image to a brain atlas
- Select among the available image fusion techniques
- Perform pixel-wise algebra with matched series, e.g. to calculate a perfusion reserve
- Apply segmentation techniques to extract organ surfaces and render them in 3D
- Project functional information as a texture onto an organ surface

### *Target Audience*

The training workshop is aimed at participants with a basic to intermediate skill level. It is primarily designed for existing and prospective PMOD users who:

- Started with PMOD recently
- Wish to extend their knowledge and interact with the developers of the software
- Would like to evaluate modules which are not available in their acquired installations

### *Trainers*

There will be preclinical experts available as well as application specialists and authors of the PMOD software. This team of trainers will make the workshop a highly interactive experience.

## Contents

### *Short Background Presentations*

The presentations will provide basic information for the purpose of understanding program operation. They will include the following topics:

- Organization of the PMOD software
- Quantification by kinetic models
- Image registration, normalization and fusion
- Visualization by 3D image rendering techniques

### *Program Demonstrations*

The demonstrations will show how work is done with the most prevalent PMOD tools:

- Basic PMOD techniques (PVIEW)
- Kinetic modeling with regional time-activity curves (PKIN)
- Applying pixel-wise models to image data (PXMOD)
- Image fusion, algebra, and stereotactic normalization (PFUS)
- 3D image rendering of brain data (P3D)

Note that the following tools will not be covered expressly by the main teaching: Cardiac modeling tool (PCARD), Alzheimer discrimination tool (PALZ), Normal brain database tool (PBRAINDB), Correlative gene-array/PET analysis (PGENE), and DICOM database server (PDCM). However, questions concerning those tools may be discussed on an individual basis during the computer exercises.

### *Computer Exercises*

The participants are required to bring their own notebooks. They will obtain a USB flash key with the latest PMOD version as well as training data sets. PMOD can be started directly from the key, such that the configuration of the notebook will remain untouched.

The team of trainers, which includes several authors of the PMOD software, will be available for practical advice. The participants will be given a set of processing tasks together with a step-by-step written solution. During exercise time, they may work through the examples of their choice, and address the trainers for help or further information.

Notes:

- The participants are required to bring their own notebooks. At least 1GB RAM will be needed.
- We reserve the right for minor changes of the training content without notification.

## Organization

### *Training Schedule*

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| Wednesday, October 22 | 09:00 - 17:00 |
| Thursday, October 23 | 09:00 - 16:00 |

The workshop is scheduled such that the participants will be able to attend right after the workshop the 48th Annual Scientific Meeting of the Japanese Society of Nuclear Medicine to be held in Chiba, where PMOD will participate as an exhibitor.

### *Workshop Dinner*

On the eve of the first training day, PMOD will offer to all participants a free, complementary workshop dinner. The dinner will allow the participants and trainers to continue their discussions and to network among peers in an informal and friendly setting.

### *Registration and Cost*

Registration can be done online, and will be handled on a first-come, first-serve basis for a maximal number of 25 participants. The workshop fee is:

- Standard: EUR 630.-
- Student: EUR 504.- (comprises a 20% discount on the standard fee)

and includes the training, all handouts, the USB flash key, all refreshments during the breaks, two lunches, as well as the complementary workshop dinner on the eve of the first training day. Note that the student fee is applicable to those participants from academia who are currently enrolled in a doctoral or other graduate degree program.

After registration, the participants will receive by e-mail a confirmation message with access information and payment instructions. Note that the *workshop fee must be paid within 10 days after registration* (online payment). Thereafter, we reserve the right to offer the place to persons waiting for a vacancy.

### *Training Location*

The workshop will be held at the Kokukaikan Hall in downtown Tokyo:
6F room 506, Minato-ku, Shinbashi 1-18-1, www.kokukaikan.com/506syosai.htm.

### *Accommodation*

The accommodation is not included in the fee and is at the discretion of the participants.

### *Cancellation Policy*

If a registered participant has to cancel his or her attendance, he or she will get a refund (fee minus bank expenses) provided that the participant's place can be filled by another person.