

Abteilung Psychiatrische Neurophysiologie, UPD, 3000 Bern 60

---

*b*  
**UNIVERSITÄT  
BERN**

Interfakultärer Schwerpunkt  
**Klinische Neurowissenschaften**

Berne, 3rd February 2006

## **BrainVoyager fMRI Course 2006**

Dear scientist

We are welcome you to the BrainVoyager fMRI Course. As you applied for the course, you will find hereafter all the details. We are looking forward to see you.

Kind regards

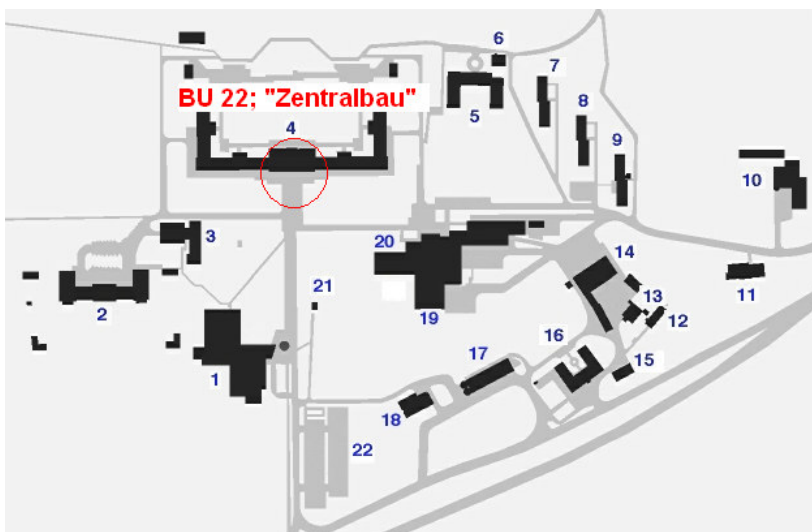
A. Federspiel

Prof. Dr. med. T. Dierks  
University Hospital of Clinical Psychiatry  
Dept. Psychiatric Neurophysiology  
Bolligenstrasse 111  
CH-3000 Bern 60

Tel. +41 031 9309330  
Fax +41 031 9309961  
dierks@puk.unibe.ch  
www.puk.unibe.ch

## BrainVoyager fMRI Course 2006

Organizers	Dr. A. Federpsiel Prof. Dr. med. T. Dierks and Ch. Lehmann UPD Waldau, Department of Neurophysiology
Location	UPD Waldau Department of Neurophysiology Zentralbau, Room Nr BU22, (Map of the location is attached)
Schedule	1 – 22 March 2006 Up to four sessions lasting min 2 hours each
Contact	Federspiel@puk.unibe.ch
Phone:	031 9309371
Course Language	English
BrainVoyager	QX Version 1.6.6 PC's are available in the room for the practical part
Programm:	Each session is divided into a theoretical- and a practical part. For the practical part, we will follow the "Getting Started Guide, version 2.0" And the "Online BrainVoyager QX User's Guide (WebHelp)"
Course Level	Beginners to advanced users in the field of fMRI
Aim of the Course	At the end of the course, participants should be able to: <ul style="list-style-type: none"><li>• understand the basic functions behind the Buttons/Switches and complexities of the program</li><li>• conduct own fMRI analysis</li><li>• understand the terminology used in common fMRI publications and articles</li></ul>



Wednesday, March, 1      9:00 – 11:00 (Preprocessing)

- Mean intensity adjustment
- Slice time correction
- Motion correction
- Spatial smoothing
- Temporal filter
- Convolution/Deconvolution
- Coregistration

Wednesday, March, 8      9:00 – 11:00 (Statistic)

- GLM
- Factorial design
- Predictors
- Statistical thresholding
- False discovery rate
- ROI/VOI analysis
- Random Effects Analysis
- ANCOVA Models
- Independent component analysis
- Bayesian analysis

Thursday, March, 16      9:00 – 11:00 (Data-Normalization)

- Talairach space
- Cortex based inter-subject alignment
- Segmentation
- Morphing
- Granger Causality
- Latency mapping

Wednesday, March, 22      9:00 – 11:00 (Open Points)

- Practical Course of dedicated points
- Practical Course of open points