

## Hands-on laboratory workshop in HPLC, LC-MS/MS, Capillary Electrophoresis, Microdialysis, Protein Binding, and Tissue Level Measurement

### Monday-Wednesday, September 06-08, 2004

On Monday-Wednesday you will have the opportunity to participate in a "Hands-on Laboratory Workshop in Bioanalysis and Microdialysis". Both the workshop lectures and the practical demonstrations will not be terribly formal courses. The workshop in bioanalysis should be understood as a highly interactive workshop.

The bioanalytical component will include the following theoretical lectures, discussion sessions and practical demonstrations at the analytical instruments in our "Analytical Laboratory" within the congress center:

	HPLC	Microdialysis	Capillary electrophoresis	LC-MS/MS
Monday, September 06	Theory lecture and practical demonstrations	Theory lecture and practical demonstrations	-	Practical demonstrations and discussions
Tuesday, September 07	Theory lecture and practical demonstrations	Theory lecture and practical demonstrations	Theory lecture	Practical demonstrations and discussions
Wednesday, September 08	Practical demonstrations	Practical demonstrations	-	-

No activities.

The theoretical lectures on chromatography, mass spectrometry, microdialysis, protein binding and tissue level determination will cover the basic theory as well as practical aspects. Special attention will be paid to the relevance and interpretation of the different analytical techniques. Thus, course participants should not only learn or improve their skills in how to apply those techniques, but also learn how to interpret the respective analytical method with its advantages and disadvantages.

The workshop in bioanalysis is designed for participants without a special background in chemistry or pharmacy. Previous knowledge in those areas will certainly be an advantage, however, is not a prerequisite. No practical experience will be required. However, advanced questions may of course be raised during the lectures and discussions as well as during the practical sessions.



## **Workshop-schedule: Theory lectures**

### Monday, September 06, 2004

The conference site will be open from 09:00 AM on.

Time	Topic	
10:00 – 11:00 AM	HPLC: Theory & practice of bioanalytical problems	
	Sample preparation, chromatography and detection in different biological matrices (blood, plasma, serum, urine, body fluids and tissue) Different groups of antibiotics as examples Frieder Kees	
11:00 – 11:15 AM	Break	
11:15 – 11:45 AM	The microdialysis method: basics and principles	
	Christian Joukhadar	
11:45 AM – 12:15 PM	The role of plasma protein binding on drug tissue penetration	
	Christian Joukhadar	

### Practical sessions at the "Analytical Laboratory" in the congress center:

Time	Topic	
11:45 AM – 01:00 PM	Special practical issues of HPLC analysis in different matrices	
	For participants with prior experience in bioanalysis	
	Participants with special interest and questions in HPLC or tissue analysis may participate in this special HPLC demonstration session.	
	Please note, this is not the introductory demonstration session in HPLC and microdialysis, which will follow from 02:00 to 05:00 PM on Monday.	
	Frieder Kees	
02:00 – 05:00 PM	GENERAL INTRODUCTION	
	Practical demonstrations in HPLC, Microdialysis and LC-MS/MS	
	According to the number of interested participants, we will or will not split the interested participants of the practical demonstrations into groups.	
	Practical demonstrations will also be held on Tuesday and Wednesday (please see below)	
	Christian Joukhadar, Frieder Kees, Simona Rizea Savu, and Luigi Silvestro	

For participants who are not able to attend the Monday lectures on bioanalysis, the theoretical lectures will be repeated on Tuesday morning. Please note that the capillary electrophoresis lecture will only be on Tuesday and not on Monday.

For special questions and advanced issues, you may contact the workshop lecturers at any time independent of this workshop schedule.



# **Workshop-schedule: Theory lectures**

# Tuesday, September 07, 2004

The conference site will be open from 08:00 AM on.

The theoretical lectures on Tuesday will be the <u>repetition of the lectures given on Monday</u>. These lectures are given a second time for course participants who cannot attend the Monday lectures.

Time	Topic	
08:00 – 08:30 AM	The microdialysis method: basics and principles	
	(same lecture as on Monday)	
	Christian Joukhadar	
08:30 – 09:00 AM	The role of plasma protein binding on drug tissue penetration	
	(same lecture as on Monday)	
	Christian Joukhadar	
09:00 – 09:30 AM	Break	
09:30 – 10:30 AM	Capillary electrophoresis: basics and principles	
	Ulrike Holzgrabe	
10:30 – 10:45 AM	Break	
10:45 – 11:45 AM	HPLC: Theory & practice of bioanalytical problems	
	(same lecture as on Monday)	
	Sample preparation, chromatography and detection in different biological matrices (blood, plasma, serum, urine, body fluids and tissue) Different groups of antibiotics as examples Frieder Kees	



### Schedule: Practical demonstrations at the "Analytical Laboratory"

### Monday - Wednesday, September 06-08, 2004

	Practical demonstrations in		
	HPLC	Microdialysis	LC-MS/MS
Instructor	Frieder Kees	Christian Joukhadar	Luigi Silvestro & Simona Rizea Savu
Monday morning, September 06, 2004	Special HPLC issues: 11:45 AM – 01:00 PM	-	Introduction and advanced issues
ocpicilisci 00, 2004	(intermediate-expert)		10:00 AM – 01:00 PM
			(interested beginners, intermediate-expert)
Monday afternoon,	General Introduction: 02:00 - 05:00 PM		Introduction and
September 06, 2004	(beginner level, basic introduction)		advanced issues
•	According to the number of interested participants, we will or will not split the interested participants of the practical demonstrations into groups.		02:00 – 05:00 PM
			(interested beginners, intermediate-expert)
Tuesday morning,	General Introduction	General Introduction	Introduction and
September 07, 2004	08:00 – 10:00 AM	10:30 AM – 12:30 PM	advanced issues
•	(beginner – intermediate)	(beginner – intermediate)	10:00 AM – 01:00 PM
			(interested beginners, intermediate-expert)
Tuesday afternoon,	Advanced issues	Advanced issues	Introduction and
September 07, 2004	01:00 - 03:00 PM	03:00 – 05:00 PM	advanced issues
, ,	(intermediate - advanced)	(intermediate - advanced)	02:00 – 05:00 PM
			(interested beginners, intermediate-expert)
Wednesday,	* Discussions at	** Discussions at	-
September 08, 2004	the instrument	the instrument	

- -: No activities.
- \*: The Wednesday sessions will primarily focus on discussions at the instruments, personal questions, and advanced issues rather than on a formal course in the analytical laboratory.

  Please contact Professor F. Kees either on Monday or Tuesday to arrange a specific time for your discussion / questions on Wednesday.
- \*\*: The Wednesday sessions will primarily focus on discussions at the instruments, personal questions, and advanced issues rather than on a formal course in the analytical laboratory. Please contact Dr. Ch. Joukhadar either on Monday or Tuesday to arrange a specific time for your discussion / questions on Wednesday.

Please note, the LC-MS/MS course will be the same on each half-day. The limit of participants for each half-day will be 10 participants. We will have participants lists at the congress center to reserve places for the LC-MS/MS introduction. You may send an e-mail to <a href="mailto:bulitta@ibmp.osn.de">bulitta@ibmp.osn.de</a> for LC-MS/MS reservations ahead of conference. Please provide the number of participants, morning / evening session and day, you would like to attend.



**Lecturers:** (in alphabetical order)

#### Ulrike Holzgrabe, PhD, Professor

Universität Würzburg Lehrstuhl für Pharmazeutische Chemie Am Hubland 97074 Würzburg Germany

#### Christian Joukhadar, MD

Department of Clinical Pharmacology Vienna General Hospital Waehringer Gürtel 18-20 1090 Vienna Austria

#### Frieder Kees, PhD, Professor

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#### Simona Rizea Savu MD

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#### Luigi Silvestro MD

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