



Zentrum für systemische Neurowissenschaften Hannover

Summer 2010

## Obligatory Classes

### ZSN-Seminar

Organization: PD Dr. K.-H. Esser

Seminar of the ZSN, invited speakers present research projects in neuroscience (1,5 hours credit for each lecture)

**Time:** Thursdays, 17:15 pm

**Location:** INI Hannover, Rudolf-Pichlmayr-Str. 4, 30625 Hannover

Date	Lecturer	Signature
15.04.10	Prof. Dr. Andrej Kral Institute of Audioneurotechnology (VIANNA) Feodor-Lynen-Str. 35, Hannover  „Representation of auditory space in congenital deafness“	
29.04.10	PD Dr. Kirsten Haastert Institute of Neuroanatomy Hannover Medical School  „Tissue-engineering strategies to increase peripheral nerve regeneration across long gaps“	
	PD Dr. Minoo Lenarz Laryngology, Rhinology and Otology Hannover Medical School  „The central auditory prosthesis: Present clinical experience and future directions“	
27.05.10	Prof. Dr. Erwin Neher (AG Reuter) Membrane Biophysics Max-Planck-Institute for Biophysical Chemistry, Göttingen  „Ca <sup>++</sup> signals and short-term plasticity at a glutamatergic synapse in the auditory pathway“	

10.06.10	<p>Leonard van den Berg (AG Dengler) Department of Neurology Rudolf Magnus Institute of Neuroscience University Medical Center Utrecht</p> <p>“Genetics and epidemiology in ALS”</p>	
24.06.10	<p>Prof. Dr. Baruch Kanner (AG Fahlke) Department of Biochemistry The Hebrew University of Jerusalem</p> <p>“Molecular mechanisms of sodium-dependent glutamate transporter”</p>	
08.07.10	<p>Prof. Dr. Hanspeter Mallot (AG Zimmermann) Cognitive Neuroscience Department of Neurobiology University of Tübingen</p> <p>“Embodied spatial cognition in natural and artificial systems”</p>	

## Continuous Lecture Series

**Obligatory** lecture series for Ph.D. students (2 hours credit for each lecture).

**1<sup>st</sup> year:** Members of the ZSN give an introduction to selected topics in neuroscience. It is the aim to provide a common neuroscientific base for all Ph.D. students.

**2<sup>nd</sup> year:** Students are divided in two groups. Each group gives a presentation on a topic formerly announced.

**PhD students are supposed to have collected 40 hours credit for continuous lectures during the 1<sup>st</sup> and 2<sup>nd</sup> year, at the latest by end of their study.**  
**Missed continuous lectures have to be repeated at another time!**

Time: Thursdays 17.15 h / **CAVE! Different day or starting time marked in red!**

### 1<sup>st</sup> year (obligatory):

Date	Topic	Lecturer and location	Signature
22.04.10	Development of the Nervous System	Bicker Institute of Physiology, TiHo, Seminar room	
06.05.10	Learning and Memory	Bicker Institute of Physiology, TiHo, Seminar room	
20.05.10	Hearing: from particle motion to sound perception	Esser Department of Zoology, library, 5. floor, TiHo	
17.06.10	Why and how we feel: Neurobiology of emotional systems	Altenmüller IMMM HMTH, Seminar room, Hohenzollernstrasse 47	
01.07.10	Clinical Neurology	Dengler Department of Neurology, Seminar room 63, 3. floor, room 2340, K6, MHH	

Time: Thursdays 17.15 h / **CAVE! Different day or starting time marked in red!**

**2<sup>nd</sup> year (obligatory):**

Date	Topics of presentations	Lecturer and location	Signature
22.04.10 <b>19.00 h</b>	<ol style="list-style-type: none"> <li>Semaphorin 3A is a chemoattractant for cortical apical dendrites</li> <li>Nitric oxide regulates axonal regeneration</li> </ol>	<p>Bicker</p> <p>Institute of Physiology, TiHo, Seminar room</p>	
06.05.10 <b>19.00 h</b>	<ol style="list-style-type: none"> <li>Enhancement of learning behaviour by guanylate cyclase activator</li> <li>The Molecular Biology of Memory Storage: A Dialogue Between Genes and Synapses</li> </ol>	<p>Bicker</p> <p>Institute of Physiology, TiHo, Seminar room</p>	
16.06.10 <b>Wednesday</b>	<ol style="list-style-type: none"> <li>Recent advances in understanding hair cell motility</li> <li>Cortical coding of vocal communication sounds in primates</li> </ol>	<p>Esser</p> <p>Department of Zoology, library (5. floor), TiHo</p>	
15.07.10	<ol style="list-style-type: none"> <li>Facilitation of learning through emotions</li> <li>Emotions in vocal communication in animals and humans</li> <li>Music making as a model for task induced plasticity</li> <li>Mechanisms of fear conditioning in animals</li> </ol>	<p>Altenmüller</p> <p>IMMM HMTH, Seminar room, Hohenzollernstrasse 47</p>	
22.07.10	<ol style="list-style-type: none"> <li>Neuronal systems involved in Parkinson syndromes</li> <li>Neuronal systems involved in dementias</li> </ol>	<p>Dengler</p> <p>Department of Neurology, Seminar room 63, 3. floor, room 2340, K6, MHH</p>	

## Laboratory classes

### „Molecular Techniques“, obligatory for 1<sup>st</sup> year

*Beineke, Fahlke, Claus, Hildebrandt*

Introduction to basic techniques in molecular biology (PCR, protein interaction, in situ hybridization etc.). It is the aim of this course to a practically orientated insight to molecular techniques and their applications in neuroscience. Detailed descriptions and protocols will be handed out. Limited number of participants. ZSN students only. (5 days, 25 credit hours)

Date: 14.06. - 18.06.2010, 9:00 - 17:00h  
Location: Department of Neuroanatomy MHH,  
Department of Pathology TiHo, Department of Cellular Chemistry MHH

Date	Signature

### Meeting of the Ph.D. students

*Baumgärtner, Dagmar Esser*

Regular meeting of ZSN students. Discussion of logistical and conceptual aspects and problems regarding the Ph.D. curriculum. Preparation and organization of common projects. (2 hours credit each)

Time and date: approx. once a month, will be announced  
Location: Department of Pathology, TiHo,  
Seminar room

Date	Signature

## Summer 2010

### Elective Classes

Elective classes cover one or more of the following categories. In the schedule they are marked by abbreviations (letters in brackets):

<b>Basics of Cellular and Molecular Neuroscience</b>	<b>(CMN)</b>
<b>Basics of Biometrics, Presentation, Animal Welfare, etc.</b>	<b>(BPA)</b>
<b>Sensory Systems</b>	<b>(SS)</b>
<b>Behavioural and Cognitive Systems</b>	<b>(CS)</b>
<b>Limbic Systems</b>	<b>(LS)</b>
<b>Motor Systems</b>	<b>(MS)</b>
<b>Systems Neuroscience: Clinical Applications</b>	<b>(CA)</b>

Institute for music physiology and musicians' medicine, HMT

**Neurosciences of Music**

*Altenmüller*

Categories: SS, CS, LS, MS

Aim:

This seminar focuses on actual results of studies investigating the neurobiological foundations of music perception and music production in general. Literature will be critically reviewed and laboratory results will be discussed.

Date: Fridays, 11.15 - 12.45 h, Start: 16. April 2010  
(2 hours credit)

Location: IMMM, Hohenzollernstraße 47, Room 100

Registration: registrations open for all interested students  
[altenmueller@hmt-hannover.de](mailto:altenmueller@hmt-hannover.de)

Date	Signature

Department of Pharmacology, Toxicology and Pharmacy, TiHo

**Course work on methods used in neuropharmacology, behavioral pharmacology, neurophysiology, neuroanatomy or neurochemistry**

*Gernert, Brandt*

Categories: CS, LS, MS

Description:

Each semester Ph.D. students are trained in some specific techniques, such as in vivo neurophysiology, behavioral pharmacology, immunohistology or microdialysis including drug analysis (40 h credit für the course)

Date: One week with 8 h/day; exact date to be fixed

Location: Labs of the Department of Pharmacology, TiHo, Bünteweg

Registration: manuela.gernert@tiho-hannover.de

Deadline : 12.04.2010

Date	Signature

**(the course only takes place, if at least 2-3 students are interested; maximum number of students per course = 4)**

**Course in experimental pharmacology and toxicology**

*Löscher, Kietzmann, Gernert Brandt and colleagues*

Categories: BPA, CS, LS, MS

Description:

Students are trained in experimental animal pharmacology, in vitro models, and computer simulations, covering a wide spectrum of topics. About 50% of the course is dedicated to neuropharmacology, including topics such as anaesthesiology, analgesia and behavioural pharmacology. At the beginning of the course there is introduction into the basics of research planning and data analysis, animal welfare and biometrics (two-three hours credit each, 30 per semester)

Date:                      Each Wednesday from 14:00 to 16:00 h,  
21.04.2010 - 14.07.2010

Location:                Course room of the Department of  
Pharmacology, TiHo, Bünteweg 17

Registration:            [wolfgang.loescher@tiho-hannover.de](mailto:wolfgang.loescher@tiho-hannover.de)

Deadline :                **12.04.10**

Date	Signature

**Surgical pathology of the nervous system - brain necropsy (hands-on)**

Stan

Category: CA

Description: Focus will be put on the differential diagnosis of the most common neuropathologic entities encountered during day-to-day neuropathologic diagnosis. (3 hours credit)

Part II: see below

Dates: 03.06. / 10.06. / 17.06. / 24.06.2010  
09.30 - 12.30 h

(as alternatives – please mention **one of** your preferred date in your registration)

Location: MHH, Building J6 (Theoretische Institute II),  
basement, Dept. of Pathology

Registration: [alex.stan@gmx.net](mailto:alex.stan@gmx.net)

Deadline : **20.05.2010**

Date	Signature

**Surgical pathology of the nervous - miscellaneous histology (hands-on)**

Stan

Category: CA

Aim and content:

Focus will be put on the differential diagnosis of the most common neuropathologic entities encountered during day-to-day neuropathologic diagnosis. (3 hours credit)

Part I: see above

Dates: 03.06. / 10.06. / 17.06. / 24.06.2010  
13.00 - 16.00 h

(as alternatives – please mention **one of** your preferred date in your registration)

Location: MHH, Building J6 (Theoretische Institute II),  
basement, Dept. of Pathology

Registration: [alex.stan@gmx.net](mailto:alex.stan@gmx.net)

Deadline : **20.05.2010**

Date	Signature







Institute of Zoology, TiHo

**Research topics in animal communication**

*Zimmermann*

Description:

Presentation and discussion of ongoing theses (2 hours credit each)

Date: Fridays, 13.00 – 14.30

Location: Library of the Institute of Zoology, TiHo

Registration: heike.held@tiho-hannover.de

Deadline: **ongoing**

Date	Signature

**Current Aspects in Animal Communication and Cognition**

*Zimmermann, Scheumann, Joly*

Categories: CS, SS, CA, CMN

Description:

Presentation and discussion of current research topics in animal communication and cognition (16 hours)

Date: 21./22.07.10, afternoon/evening

Location: Library of the Institute of Zoology, TiHo, Bünteweg 17

Registration: heike.held@tiho-hannover.de

Deadline: **ongoing**

Date	Signature

**Neurobiology of Acoustic Communication**

*Zimmermann, Schmidt*

Category: CS, BPA, SS

Description:

Lecture: animal models in hearing and communication research (bats and nonhuman primates), how and why animals produce vocalizations, what animals perceive and recognize acoustically, vocal mimicry, evolution of communication systems

Course: introduction into experimental techniques on mammalian vocal production, acoustic preception and auditory lateralization

Date	Signature

Seminar: Current topics in the Neurobiology of Acoustic Communication

Date: 07.-11. 06. 10

Location: Institute of Zoology, TiHo

Registration: heike.held@tiho-hannover.de

Deadline: ongoing

**Advanced lab course - Systems Neurobiology**

*Esser*

Category: CS, BPA,SS

Description:

Introduction to specific methods & research tools (3 weeks, 72 hours)

Date: according to prior agreement

Location: Institute of Zoology

Registration: kalle.esser@tiho-hannover.de  
phone: 953 – 84 20

Deadline: ongoing

Date	Signature

**Echo- and electrolocation in animals**

*Esser, Schmidt*

Category: SS

Description:

Animals developed different strategies for gaining information about their environment by sending out some kind of probing stimulus. Such strategies are most commonly used where vision is limited (e.g. by darkness or water turbidity). In our seminar students present and discuss (together with us) recent literature on echolocation in bats and dolphins/ wales and on electrolocation in weakly electric fish. (12 hours credit)

Date: to be decided (2 weeks during summer term)

Time : according to prior arrangement

Location: Institute of Zoology, TiHo, library (level 5)

Registration: kalle.esser@tiho-hannover.de

Deadline: April 15, 2010

Date	Signature



Department of Anaesthesiology and Department of Neurology  
and Neurophysiology, MHH

**Clinic for Anaesthesia and Intensive Care Medicine**

**Molecular mechanisms of analgesic and local Anaesthetic  
action**

*Dr. Jörg Ahrens, Dr. Nilufar Foadi, Vanessa Buchholz, Jeanne de la Roche*

Categories: CMN (Basics of Cellular and Molecular Neuro-  
science)  
CA (Systems Neuroscience: Clinical Applications)

Aim and content:

*Type of your course:* **Seminar**

- Basic principles of the Patch-Clamp-Technique including hands-on training
- Electrophysiology and pharmacology of voltage- and ligand-gated ion channels
- Clinical applications for ion channel modulators with a special focus on drugs that target inhibitory synaptic mechanisms in the spinal cord and cation channel blockers in the treatment of chronic pain

Date	Signature

Date: **12.04.2010 - 16.04.2010**

Time: **10:00-16:00 daily**

Hours: **30 hrs**

Location: Hannover Medical School K5, elevator D; 3<sup>rd</sup> floor,  
Raum-Nr. 2390 and 3090

Preliminary work: **Bertil Hille: "Ionic channels of excitable  
membranes", 3<sup>rd</sup> edition**

Registration: [ahrens.j@mh-hannover.de](mailto:ahrens.j@mh-hannover.de);

Deadline: none - at most 4 participants

**Physiology of ion channels – Basic principles of the patch-clamp technique**

*Dr. Jörg Ahrens*

Categories: CMN (Basics of Cellular and Molecular Neuroscience)  
CA (Systems Neuroscience: Clinical Applications)

Date	Signature

Aim and content:

*Type of your course:* **Lecture and discussion**

- Basic principles of the Patch-Clamp-Technique
- Physiology and Pathophysiology of voltage- and ligand-gated ion channels
- Involvement of altered function and expression pattern of ion channels along the pain processing pathway
- Clinical applications for ion channel modulators with a special focus on drugs that target inhibitory synaptic mechanisms in the spinal cord and cation channel blockers in the treatment of chronic pain

Date: **12.04.2010**

Time: **16:15-18:00 h**

Hours: 2 hrs

Location: Hannover Medical School K5, elevator D; 3<sup>rd</sup> floor, room Nr. 2390

Registration: ahrens.j@mh-hannover.de

Deadline for registration: none

Department of Otolaryngology, Department ENT Clinic, MHH

**Audiologic Neurophysiological Practical Course - Hearing**

Reuter, Büchner, Calixto, Hoffmann, Lenarz M., Scheper, Warnecke, Wenzel, Wissel, Lenarz Th.

Categories: CA

Description:

1. **Histological methods in ENT**; micro dissection of the cochlea, sectioning of fixed and unfixed tissue of cochlea or brain tissue; grinding of cochleae, staining of section, quantitative analysis of cells in section, volume and tissue culture.

2. Protection of oto traumata in the hearing system, **laser micro dissection (LMD)** of inner ear tissue, RNA- preparation, cDNA- synthesis, PCR

3. Biomechanics of the middle ear, laser vibration measurements of the middle ear in picometer ranges via **Laser Doppler Vibrometrye (LDV)**, description of middle ear movement with multi frequency tympanometry

4. Introduction to the nano world of cochlea implant surfaces, analysing surface of cochlear implant materials via **atomic force microscopy (AFM)**

5. **Cochlear Implant.** A cochlear implant is a small, complex electronic device that can help to provide a sense of sound to a person who is profoundly deaf or severely hard-of-hearing. What is a cochlear implant? How does a cochlear implant work? Who gets cochlear implants?

**6. Objective measurements in ENT**

Otoacoustic emissions, auditory evoked potentials, frequency specific auditory potentials, the theoretical background will be presented and some measurements will be done by participants on each other, other measurements will be demonstrated in animals like guinea pigs, mice or rats

Date: 11.10.2010 - 15.10.2010,  
8.30 - 16.30  
Daily 45 min introduction, practical course, 30 min summary  
Hours: 40

Location: Hearing research Lab., MHH, K 5, 3. Floor;  
VIANNA

Registration: Reuter.Guenter@mh-hannover.de

Deadline: 28.02.2010

**At least 3 participants, max. 8 participants**

Date	Signature

Institute of Diagnostic and Interventional Neuroradiology, MHH

**Modern Neuroimaging Methods in vivo – from anatomy to pathophysiology of human brain**

*Lanfermann, Ding*

Categories: CA

Description:

This seminar will give an overview about the modern neuroimaging tools used to observe physiological / pathological changes in human central nervous system in vivo, such as the basics of MRI, the diffusion tensor imaging, the functional MRI, as well as the MR spectroscopy. Special CNS diseases caused by genetic defects or other noxa will also be shortly introduced.

(1,5 hours each)

1. MR basics, relaxation time measurement, DTI, Spectroscopy (PD Dr. X. Ding) 19.04.
2. Morphological Determination of the Brain (Dr. E. Bültmann) 26.04.
3. Maturation of the brain (PD Dr. X. Ding) 10.05.
4. CNS -Tumor diagnostics (Dr. P. Raab) 17.05.
5. Ischemic lesions in brain (Dr. F. Donnerstag) 31.05.
6. Leukodystrophies (PD Dr. X. Ding) 07.06.
7. Infection in CNS (Dr. E. Bültmann) 14.06.
8. Functional MRI (Dipl. - Psych. D. Schardt) 21.06.
9. Neurodegenerative diseases (Dr. P. Raab) 28.06.
10. Further neuroradiological methods (Dr. E. Bültmann) 05.07.

Date: every Monday (except holiday)  
10.00 – 11.30

Location: Seminar room S52, Building K5

Preliminary Work: It is advantageous to have some basic knowledge about neuroanatomy

Registration: [Ding.xiaoqi@mh-hannover.de](mailto:Ding.xiaoqi@mh-hannover.de) with **Keyword** "neuroimaging"

Deadline: 12.04.2010

Date	Signature
19.04.10	
26.04.10	
10.05.10	
17.05.10	
31.05.10	
07.06.10	
14.06.10	
21.06.10	
28.06.10	
05.07.10	



Date:            Day 1 and 2 – April 28/29, 2010  
Day 3: day to be fixed with especially interested students

Time:            Day 1: 13:00 to 17:00  
Day 2: 09:00 to 17:00  
Day 2: 07:30 to 13:30 (approximately)

Location:       Seminar room (65) of the Department of Neurosurgery,  
MHH (Building K6, Level 05, Room 2320)

Preliminary Work:  
not requested

Registration:  
schwabe.kerstin@mh-hannover.de

Deadline for registration:  
April 1, 2010

## Complementary Activities

### German language course

*Natarajan*

Description:

German language course “basic to advanced level”.

Date: ongoing

Each Monday 17.00-19.00h and Friday 17.00-19.00h

Location: Seminar room (could change) of the Department of Pathology (TiHo, Bünteweg 17, first floor)

### 3042 Scientific English Papers Workshop I

ss2009

*Sherwood-Brock*

Interdisciplinary course (module 2)  
block workshop, 12 hours max. 10 participants  
Language: English

Aim and content:

Paper mitbringen, muss nicht eigenes sein.

Date: Fri 06.03.2009; 15:15-18:15 +  
Sat 07.03.2009; 9:15-16:15

Location: TiHo / Tower Bünteweg 2, room 205

Registration: [Sigrid.faber@tiho-hannover.de](mailto:Sigrid.faber@tiho-hannover.de)

Deadline: 19.02.2009

## Department of Pathology, TiHo

### How to write and publish a scientific paper

*Alldinger*

Interdisciplinary compulsory course (module 2)

Seminar, 3 hours Language: English

Description:

The seminar aims to provide an overview over the process of preparing a scientific publication.

Pework studies / literature:

Having studied a large number of different kinds of scientific publication.

Date	Signature
09.07.10	

ZSN – course catalogue    **Summer 2010**    **Name:**

Suggested readings: Robert A. Day, "How to write and publish a scientific paper", Oryx Press

Date:            Friday, 09.07.10, 14.00 - 17.00 h

Location:      TiHo/ Department of Pathology, Bünteweg 17,  
Seminar room, 1st floor

Registration: sigrid.faber@tiho-hannover.de



## Institut of Zoology, TiHo

### **Journal Club in Animal Communication and Cognition**

*Zimmermann*

Categories: CS, SS, CA, CMN

Description:

Presentation and discussion of recent publications by  
Master- and the Ph.D. students  
(28 hours / semester = 56 hours / year).

Date: Friday afternoon, see specific announcements

Location: Library (5<sup>th</sup> floor) of the Institute of Zoology, TiHo,  
Bünteweg 17

Registration: [heike.held@tiho-hannover.de](mailto:heike.held@tiho-hannover.de),

Deadline: **ongoing**

Date	Signature

### **Journal Club in Experimental Sensory Biology**

*Schmidt*

Categories: CS, SS, CA, CMN

Description:

Presentation and discussion of recent publications  
by Master- and the Ph.D. students  
(28 hours / semester = 56 hours / year)

Prework Studies / Literature: provided at registration

Date: Friday afternoon, see specific announcements

Location: Library (5<sup>th</sup> floor) of the Institute of Zoology, TiHo,  
Bünteweg 17

Registration: [sabine.schmidt@tiho-hannover.de](mailto:sabine.schmidt@tiho-hannover.de)

Deadline: **ongoing**

Date	Signature

**Journal Club in Systems Neurobiology**

*Esser*

Categories: CS, SS, CA, CMN

Description:

Presentation and discussion of recent publications by Master- and the Ph.D. students (28 hours / semester = 56 hours / year)

Prework Studies / Literature: provided at registration

Date: Friday afternoon, see specific announcements

Location: Institute of Zoology, library 5<sup>th</sup> floor, TiHo, Bünteweg 17

Registration: Kalle.esser@tiho-hannover.de

Deadline: **ongoing**

Date	Signature

**Journal Club in Eco-Physiology**

*Steinlechner, Lipokatic-Takacs, Petri*

Categories: CS, SS, CA, CMN

Description:

Presentation and discussion of recent publications by Master- and the Ph.D. students (28 hours / semester = 56 hours / year).

Date: Friday afternoon, see specific announcements

Location: Library (5<sup>th</sup> floor) of the Institute of Zoology, TiHo, Bünteweg 17

Registration: stephan.steinlechner@tiho-hannover.de

Deadline: **ongoing**

Date	Signature









Registration:

This teaching unit is restricted to members of the Institute for Cellular Chemistry, MHH

Deadline: for registration: none

Division of Cell Biology, TiHo

**Group meetings and Journal Club of G. Bicker 's group**

*Bicker*

Categories: CS, LS, MS

Description:

Each week the scientists and Ph.D.-students of Bicker's lab discuss their projects and publications in the field of cellular neuroscience. (one hour per week throughout the year – 14 h per semester)

Date: Each Wednesday from 10.00-11.00 h

Location: Physiology Institute, TiHo

Registration: Registration possible only for PhD-students of G. Bicker's group

Date	Signature

Department of Neurology, MHH

**Weekly Lab Meeting and Journal Club of M. Stangel's group**

*Stangel*

Categories: CMN, MS, CA

Aim and content:

The scientists, clinicians and Ph.D.-students of the Stangel lab discuss their projects and publications in the field of demyelinating disorders of the CNS and Neuroimmunology including clinical applications

Date: each Tuesday  
17.00 - 19.00 h (2 h / week)

Location: PhD room, Dept. of Neurology, MHH

Registration: registration possible only for Ph.D.-students of the Stangel lab

Deadline for registration: ongoing

Date	Signature

Institute of Neurophysiology

**Departmental Seminar of the Institute of Neurophysiology  
Group meetings of Prof. Fahlkes’s group**

*Fahlke*

Categories: CMN

Aim and content:

Presentation of ongoing theses by scientists, Ph.D.-students and doctoral students

Date: each Friday, 08.30 h (1,5 h / week)

Location: Seminar room, Building I3, Floor 3, MHH

Registration: registration possible only for Ph.D.-students of Prof. Fahlke’s group

Date	Signature

**Glutamate transporter meeting of the Institute of Neurophysiology  
Group meetings of Prof. Fahlkes’s group**

*Fahlke*

Categories: CMN

Aim and content:

Each week PIs, Postdocs and Ph.D.-students of the Institute of Neurophysiology discuss new experimental results as recent publications in the field of neuronal glutamate transport.

Date: each Wednesday, 10.30 h (1 h / week)

Location: Seminar room, Building I3, Floor 3, MHH

Registration: registration possible only for Ph.D.-students of Prof. Fahlke’s group

Date	Signature

Department of Anaesthesiology and Department of Neurology and Neurophysiology, MHH

**Clinic for Anaesthesia and Intensive Care Medicine**

**Molecular mechanisms of analgesic and local anaesthetic action; Progress reports**

*Dr. Jörg Ahrens, Dr. Nilufar Foadi, Vanessa Buchholz, Jeanne de la Roche*

Categories: CMN (Basics of Cellular and Molecular Neuroscience)  
CA (Systems Neuroscience: Clinical Applications)

Aim and content:

*Type of your course:* **Lab-Meeting:** Progress reports in the following projects:

- Targeting inhibitory synaptic mechanisms in the spinal cord as a novel approach to treating chronic pain
- State-dependent blockers of voltage-gated sodium channels as novel analgesics and local anaesthetics
- Direct ionotropic effects of endotoxin and inflammatory mediators

Date: every 2<sup>nd</sup> Monday alternate with the ZSN-Seminar

Time: 16:30-18:30

Hours: 2 hrs

Location: Hannover Medical School K5, elevator D; 3<sup>rd</sup> floor, Room: 3090

Registration: [ahrens.j@mh-hannover.de](mailto:ahrens.j@mh-hannover.de)

Deadline: none

Date	Signature

Clinic for Psychiatry, Socialpsychiatry and Psychotherapy, MHH

**Group meetings and Journal Club of Prof. Emrich´s group**

*Emrich, Dietrich, Zedler*

Categories: CS, LS, MS

Description:

Weekly lab-meeting of the study group, discussion of the lab work and new publications (one credit hour per date)

Date: each Wednesday, 12.00-13.00h

Location: K 9 UO 1070

Registration: registrations open for all interested students

[emrich.hinderk@mh-hannover.de](mailto:emrich.hinderk@mh-hannover.de)  
[ddie.psy@hildesheim.ameos.de](mailto:ddie.psy@hildesheim.ameos.de)  
[zedler.markus@mh-hannover.de](mailto:zedler.markus@mh-hannover.de)

Date	Signature