



Target Audience

Investigators (students, postdocs) from laboratories studying infectious diseases of the brain. The course can accept a maximum of 20 participants.

Course Description

Participants will be knowledgeable about the characteristic forms of brain injury associated with infectious diseases of the central nervous system. A special focus will be brain injury in bacterial meningitis, e.g. necrotic lesions in the cerebral cortex; apoptosis and pyknosis in the hippocampus; and neuronal loss to the inner ear. Another focus will be fungal brain infections with vasculitis and brain abscesses. The participants will perform "hands on" preparation of brain tissue specimens for histopathological evaluation and quantitative assessment of defined forms of brain injury.

Faculty Members

Christian Brandt, Hvidovre, DK
Denis Grandgirand, Berne, CH
Matthias Klein, Munich, DE
Stephen Leib, Berne, CH
Marco Oggioni, Siena, IT
Susanna Ricci, Siena, IT
Stefan Zimmerli, Berne, CH

Contacts

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Picture inside: Coronal section of an infant rat brain 36 hours after experimental pneumococcal meningitis stained with cresyl violet. Note the occurrence of cortical brain injury. Picture kindly provided by Stephen Leib.



ESCMID Postgraduate
Technical Workshop

**Histopathology
in Experimental
Neuroinfection**

**Berne, Switzerland
7 – 8 September 2009**



Histopathology in Experimental Neuroinfection

Organized by the ESCMID Meningitis Study Group (EMESG).

Organizer

Stephen Leib, University of Berne, Berne,
Switzerland on behalf of EMESG

Course Objectives

Coordinated efforts to study the pathophysiology of infectious diseases of the central nervous system are hampered by the lack of consistent and comparable measurements for the quantitative and qualitative assessment of brain injury. The workshop aims at setting standards for histopathological evaluation of experimental infection-associated brain injury by providing the necessary knowledge and techniques to the participants.

Course Venue

University of Berne, Berne, Switzerland

Scientific Programme

The workshop starts on Sunday, 6 September 2009, 19.00 with a "get-together" with refreshments and ends on Tuesday, 8 September 2009 at 16.00. Lectures are held in the mornings, late mornings and afternoons are reserved for the practical courses in small groups.

Plenary Lectures

- Disease models of bacterial meningitis in the infant rat. *Stephen Leib*
- Animal models of bacterial meningitis: role of microbial virulence factors in the disease. *Susanna Ricci & Marco Oggioni*
- Histopathologic assessment of the cochlea in meningitis-associated labyrinthitis. *Matthias Klein*
- Modelling cerebral aspergillosis. *Stefan Zimmerli*
- Brain damage to the hippocampus in experimental bacterial meningitis. *Denis Grandgirard*
- *In-vivo* imaging of brain pathology and relationship to standard histopathology – potential advantages and disadvantages. *Christian Brandt*

Practical Sessions

- Tissue preparation for histopathological processing
- Cryocutting and cutting of paraffin-embedded samples from brain tissue and inner ear, mounting on glass slides
- Staining procedures
- Computer-aided quantitative assessment of brain damage
- Assessment of damage to the hippocampus
- Assessment of damage to the inner ear

Organization

Application Procedure

The application form can be found on the ESCMID website at www.escmid.org/education. Please return it together with a motivation letter (max. 250 word), your CV and your publication list to the course administrative secretariat by 19 June 2009.

Tuition Fee

The tuition fee of EUR 300 covers course participation and lunches. It does not include travel and accommodation costs.

Attendance Grants

ESCMID provides a number of attendance grants for young attendees (born in 1969 or later) covering the tuition fee and accommodation, but not travel costs. Applicants should send their application documents and their ESCMID membership number (if applicable) before 19 June 2009 to the administrative secretariat. If there are more applicants than available grants, preference will be given to ESCMID members. Applicants will be informed about their acceptance by 30 June 2009.