

# **CMBN, GNN and NES Workshop Friday March 14th 2008**

## *Status Epilepticus - from Ion Channels to Clinical Trials*

Status epilepticus is a serious condition that can have lethal effects on both single neurons and patients. The mechanisms involved are only partly known. Different treatment strategies have been used, but the optimal treatment strategy has yet to be defined.

The aim of this informal workshop is a better understanding of basic and clinical aspects of status epilepticus. The topics include mechanisms involved in the occurrence, maintenance, and termination of neuronal hyperexcitability, mechanisms that underlie seizure-induced neuronal damage and death, as well as a description of the different clinical presentations of status epilepticus and their treatment.

### **Speakers**

Professor Peter Wolf, Copenhagen. President of The International League Against Epilepsy  
Professor Asla Pitkänen, Kuopio,  
Professor Bernt Engelsen, Bergen  
Professor Elinor Ben-Menachem

There will be ample time for discussion after each presentation, and the meeting will end with a round table discussion.

### **Program**

New Auditorium 13, Domus Medica, Gaustad (next to Rikshospitalet):

12.00-12.35: Professor Peter Wolf: Status epilepticus - definitions, etiologies, and clinical presentations.

12.45-13.20: Professor Asla Pitkänen: Animal models of status epilepticus - what have they taught us about mechanisms and treatment?

13.30-14.05: Professor Bernt Engelsen: The present guidelines for treatment – are they optimal?

14.15-14.45: Coffee in "Anatomical Institute"/Centre for Molecular Biology and Neuroscience

14.45-15.20: Professor Elinor Ben-Menachem: New drugs for the treatment of status epilepticus

Room nr 1330 Domus Medica, "The Lunch room" at Department of Anatomy:

15.30-16.30: Round table discussion on mechanisms and treatment.

Participants: Professor Johan Storm, Professor Ole Petter Ottersen, Dr Vidar Gundersen, Dr Ketil Berg Olsen, Professor Erik Taubøll, and Dr Bjørnar Hassel (moderator).

Topics for round table discussion:

1. To what extent is it true that AEDs with a GABAergic mechanism of action become ineffective after prolonged status epilepticus?
2. Is levetiracetam likely to have a role in status epilepticus given its lack of effect in several preclinical models of status epilepticus?
3. Does inhibition of glutamatergic activity hold any promise in the treatment of status epilepticus? Any roles for topiramate or ketamine?
4. Are there new treatment strategies for status epilepticus on the horizon?
5. Neurodegeneration after status epilepticus. When does it occur, what is the mechanisms, and how to protect it from happening?
6. Challenges in organizing trials for novel treatments of status epilepticus?
7. Do we need an algorithm for treatment which includes experimental treatments and ethical issues?