

# III International Course on Neurobiology: Techniques for electrophysiological recording in neural preparations

Bogotá, D.C., Colombia.  
April 21<sup>st</sup> to 24<sup>th</sup>, 2008.

The workshop will be focused in up to date techniques to perform extracellular and intracellular recordings in the brain of anaesthetized and alert behaving animals and *in vitro* neural preparations. In order to boost the use of such techniques in the region, which is still marginal, this workshop is directed to graduate students in neuroscience related fields from the Andean Community and the Caribbean

## Programme outline:

### Theoretical talks:

- The study of mixed synapses of Mauthner cells in *Carassius auratus*. Alberto Pereda and Roger Cachope, Albert Einstein College of Medicine, USA.
- Ionic channel transplantation in *Xenopus laevis* oocytes. Zulma Dueñas, Universidad Nacional de Colombia, Colombia.
- Neuromuscular junction preparations. Ricardo Miledi, University of California at Irvine, USA.
- In vivo recordings of video-EEG in epileptic rats. Norberto García-Cairasco, Departamento de Fisiologia, Faculdade de Medicina de Ribeirão Preto, Universidade de São Paulo, Brasil.
- Pharmacological manipulations for the study of epilepsy in rats. José Ortiz, Departamento de Farmacologia, Universidad de Puerto Rico, Puerto Rico.
- Extracellular recordings in alert behaving animals. Alejandro Múnera, Universidad Nacional de Colombia, Colombia.
- Patch-clamp recordings in cultured neurones. Leonardo Fierro, Universidad del Valle, Colombia.
- Combining *in vivo* imaging techniques and electrophysiology, a new approach, Herman Moreno, Columbia University.

After each theoretical talk, students will be encouraged to interact with the lecturers through the discussion of selected experimental results. Additionally, students will be asked to present their own experimental results.

### Practices:

- Intracellular recording in Mauthner cells in *Carassius auratus*. Alberto Pereda and Roger Cachope.
- Voltage-clamp recording in *Xenopus laevis* oocytes. Zulma Dueñas.
- Chemitrode insertion and chronic recording in the amygdala and hippocampus. José Ortiz, Norberto García-Cairasco, Flávio Del Vecchio.
- Extracellular recording in the rat motor cortex. Alejandro Múnera.

For each practice, a group of students will be selected in order to actively participate in the experiment and to analyze and present the results.

**Cost:**

Graduate students    US\$ 150  
Professionals        US\$ 300

**Applications:**

Each applicant should send:

- A brief curriculum vitae, emphasizing the research experience in the field of neuroscience.
- A letter explaining the interest in the course and its possible impact on the applicant's career (maximum extent: one page).
- Two letters of recommendation from direct research supervisors or teachers in the field of neuroscience.

The above mentioned documents should be sent via e-mail to:

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Deadline for applications: March 7<sup>th</sup>, 2008

**Selection Process:**

Twenty five attendants will be selected by the organizing committee based in academic criteria. Ten graduate students will receive a complete tuition fee. Awarded students coming from outside Bogotá will also receive an additional financial aid for accommodation expenses.

The results of the selection process will be communicated by March 31<sup>st</sup>.