

# Latinamerican School on Ion Channel Biophysics

COURSE/WORKSHOP - ION CHANNELS: STRUCTURE, FUNCTION AND DISEASE

Organizers:

Dr. Ramón Latorre (CINV, Chile), Dr. Carlos González (CINV, Chile) and Dr. Teresa Giraldez (HUNSC, Spain)

Sept 23<sup>th</sup> - 30<sup>th</sup> 2013S School & SOBLA MEETING-NEUROSCIENCE CHILEAN MEETING (Oct 1<sup>th</sup>-4<sup>th</sup>)

INICIATIVA CIENTIFICA  
MILENIO  
ICM

## Teaching Staff:

Dr. Hector Barajas (USA)

Dr. Francisco Bezanilla (USA)

Dr. Sebastian Brauchi (CHILE)

Dr. Jorge Contreras (USA)

Dr. Luis Cuello (USA)

Dr. Gonzalo Ferreira (URUGUAY)

Dra. Teresa Giraldez (SPAIN)

Dr. Carlos Gonzalez (USA)

Dr. Eduh Isacoff (USA)

Dr. James Hall (USA)

Dr. Miguel Holmgren (USA)

Dr. Peter Larsson(USA)

Dr. Ramon Latorre (CHILE)

Dr. Alan Neely (CHILE)

Dra. Veronica Milesi (CHILE)

Dr. Pablo Miranda (SPAIN)

Dr. Matthias Salathe (CHILE)

## Teaching Assitants:

Dr. David Baez ( CHILE)

Dr. Juan Pablo Castillo (CHILE)

Dr. Gustavo Contreras (CHILE)

**Topics** – Introduction, types of Ion channels, convergence;  
Essential Techniques for studying Ion channels and Transporters  
Function

Electrophysiology - Voltage clamp techniques

Structure

Biochemistry – Membrane Proteins Biochemistry

Molecular Biology of Ion channels

Fluorescence

Voltage clamp fluorometry, LRET ,  
patch clamp fluorometry ,  
real time fluorescence spectroscopy

Electronic paramagnetic resonance

Crystallography

Channels in native systems

Smooth Muscle

Nanotechnology – Remote control of Ion channels

Channels and diseases

Potassium channels

Hemichannels, connexins and pannexins

**Fellowships will be provided for a limited amount of students. Send CV and letter of intention explaining why you want to take this course to [alejandra.pinto@cinv.cl](mailto:alejandra.pinto@cinv.cl). Deadline August 1<sup>st</sup> 2013.**



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