



SUMMER COURSE IN NEUROSCIENCE

Advances in neural rhythms modulation and dysregulation

Programa de Doctorado en Neurociencia
Universidad de Santiago, Chile
Santiago, Chile
January 12 – 13, 2017

Organizer:

Jaime Eugenin, MD, PhD, Professor and Director PhD Program in Neuroscience, Universidad de Santiago, Santiago, Chile

Lecturers:

- Sebastián Beltrán, PhD, Universidad de Santiago de Chile, Chile
- Eduardo Bravo, PhD, The University of Iowa, USA
- Verónica Cerpa, PhD, Professor Universidad del Desarrollo, Chile
- Isabel Llona, PhD, Professor Universidad de Santiago de Chile, Chile
- George B. Richerson, MD, PhD, The Roy J. Carver Chair in Neuroscience, Professor and Head Neurology Department, The University of Iowa, USA
- Patricio Rojas, PhD, Professor Universidad de Santiago de Chile, Chile

Seven lectures last for about 30 minutes each separated in two morning blocks. The first morning block is focused in the modulation of breathing by central chemoreception and the role of specific factors (D-serine and serotonin). The second one will be focused in mechanisms and models of epilepsy and sudden death. Each block will be finished by discussion of questions that arise from the lectures. During discussions, students will also have the opportunity to inquiry about studentships and postdoctoral opportunities in North America.

Schedule (subject to change):

Thursday, January 12

- 9:30 Introduction: Jaime Eugenín
- 9:45 D-serine, a new player in the chemosensory control of the respiratory rhythm
Dr. Sebastián Beltrán
- 10:20 The controversial role of 5-HT neurons in central respiratory CO₂ chemoreception
Dr. George B. Richerson
- 10:55 Coffee brake
- 11:20 Postnatal development of chemosensitivity in raphe neurons
Dr. Verónica Cerpa
- 11:55 Development of brainstem respiratory network: role of serotonin
Dr. Isabel Llona
- 12:30 General Discussion



Friday January 13

- 9:30 Mechanisms of sudden death in epilepsy
Dr. George B. Richerson
- 10:05 Breaking down seizure spread network. Epilepsy, Amygdala, apnea and SUDEP
Dr. Eduardo Bravo
- 10:40 Coffee brake
- 11:05 Chloride Co-transporter NKCC1 controls excitability of dentate gyrus in a model of Temporal Lobe Epilepsy
Dr. Patricio Rojas
- 11:40 General Discussion

E-mail addresses of lecturers:

- Sebastián Beltrán: sebastian.beltran@usach.cl
- Eduardo Bravo: eduardo-bravo@uiowa.edu
- Verónica Cerpa: vcerpa@udd.cl
- Isabel Llona: isabel.llona@usach.cl
- George B. Richerson, george-richerson@uiowa.edu
- Patricio Rojas, patricio.rojas.m@usach.cl

Inscriptions and fee: No charge course. Students should apply using the annexed form to be sent to jaime.eugenin@usach.cl. Assistance certificate will be provided.

Application deadline: January 10, 2017