

December 14-21, 2013, San Juan-Bayamon, Puerto Rico

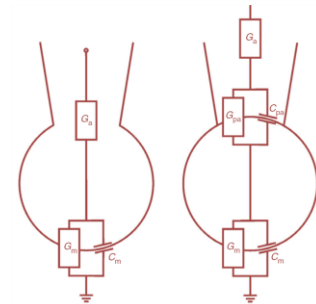
IBRO GLIA Workshop: Membrane capacitance techniques to study regulated exocytosis based on the *Nature Protocols 8: 1169-83, 2013* & CaribeGLIA-3 Symposium

Workshop outline

Nina Vardjan, Marko Kreft, Robert Zorec

Background in membrane capacitance measurements: *Methods for measuring membrane capacitance (microscopic and macroscopic). Regulated exocytosis. Whole-cell measurements. Fusion pore properties (single vesicle measurements). Historical view and future directions.*

Laboratory demonstrations and hands-on experience of the new technique: *Measurements of Single Vesicle Fusion in Glial Cells.* Data interpretation.



Invited speakers

Philip Haydon

ATP/Adenosine-release from glia and sleep disorders

Serguei Skatchkov

Polyamines, uptake and release in glia: role in brain signaling

Feliskas Bukauskas

Cx43, Cx30 hemichannels and GJ and their regulation by polyamines and Mg

Alberto Pereda

Mechanisms of plasticity at gap junction-mediated electrical synapses

Colin Nichols

Glial Kir4.1 K-channels and brain disorders

Dmitri Rusakov

Dissecting astroglial machinery using fluorescence life-time imaging and realistic biophysical models

Robert Zorec

Exocytotic fusion pore regulation

Sergey Kirov

Brain injury and neuro-glio-vascular interactions

Misty Eaton

Ischemia and TREK-2 upregulation in glia

Yuriy Danilov

Post traumatic recovery in CNS by special electrical stimulation: possible role of glial cells

Frank Kirchhoff, Alexej Verkhratsky, Mike Bennett

Title to be announced

Marko Kreft

Monitoring vesicle dynamics and metabolites in single living astrocytes

Nina Vardjan

Astrocytes as antigen presenting cells: traffic of endolysosomal compartments and intermediate filaments

Venue: Universidad Central del Caribe, Physiology and Biochemistry, Bayamón, Puerto Rico

Organisers:

Robert Zorec, University of Ljubljana, Faculty of Medicine, Ljubljana, Slovenia

Serguei Skatchkov, Misty Eaton, Universidad Central del Caribe, Bayamón, Dept. of Physiology and Dept. Biochemistry, Puerto Rico