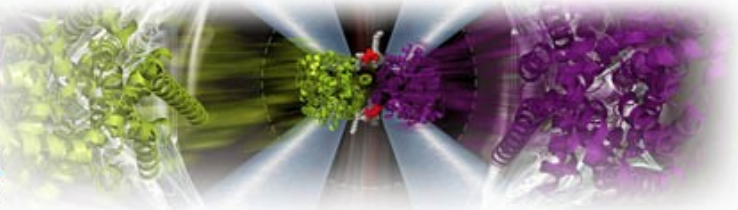


BPS19

63RD ANNUAL MEETING OF THE BIOPHYSICAL SOCIETY
BALTIMORE, MARYLAND • MARCH 2–6, 2019



Sunday, March 3
5:30 pm – 7:00 pm
Room 303
ELEMENTS SRL

PORTABLE AND COST-EFFECTIVE LOW-NOISE AMPLIFIERS FOR ELECTROPHYSIOLOGY AND NANOPORE APPLICATIONS

Ultra-portable and cost-effective amplifier technology is now a reality accessible to any electrophysiology research lab, thanks to Elements microelectronic-based design of custom microchip (ASIC) using standard and low-cost CMOS processes.

Elements provides an integrative solid-state solution to measure currents in the picoampere (10-12 pA) range, with bandwidths up to hundreds of kHz, featuring very low noise recordings, signal digitalization thanks to the internal Analog-to-Digital converter, signal generator, digital data elaboration, and USB powered, all in a tiny form factor (i.e. 42x18x78 mm) or about the size of a point-and-shoot digital camera!

In this presentation, we will be featuring our latest electrophysiology product, the world's smallest integrated patch clamp amplifier, as well as a portable nanopore kit for protein detection using disposable glass nanopore chips.

During the event will be presented these two use cases:

1. ePatch amplifier was used to record the current of HCN channels transiently expressed in HEK293T cells, with the aim to test the effect of Lamotrigine, a widely used anticonvulsant drug, on the biophysical properties of the current.
Data courtesy of Dr. A. Moroni - University of Milan - Italy and Dr. Bina Santoro - Columbia University - New York – USA
2. Portable Nanopore Reader: example of DNA fragment translocations through glass nanopore chips. *Data courtesy of Dr. D. Niedzwiecki, Goepfert– USA*

Attend this presentation to learn about:

- The advantages of using a versatile and compact nano-current amplifier technology,
- Portable nanopore solution for protein detection using disposable nanopore chips,
- How the world smallest and cheapest patch clamp amplifier is radically changing voltage-clamp measurements!

Complimentary Italian hors d'oeuvres and drinks will be served! Seating is limited. Be the first to RSVP by emailing info@elements-ic.com to receive a copy of the presentation and be entered in a raffle to receive a free 30-day trial of the ePatch or nanopore Kit amplifier!

Speakers

Federico Thei, CEO, ELEMENTS SRL

Filippo Cona, Software Engineer, ELEMENTS SRL

Alessandro Porro, Application Scientist, ELEMENTS SRL

Serge Kaddoura, NanoscaleLABS