BIOGRAPHICAL SKETCH

NAME	**POSITION TITLE**
Ballerini, Laura 	Professor of Physiology

EDUCATION/TRAINING

INSTITUTION AND LOCATION	**DEGREE** *(if applicable)*	**YEAR(s)**	**FIELD OF STUDY**
University of Florence School of Medicine, Italy	MD *cum laude*	1988	Medicine
University of Florence School of Medicine, Italy	PDF	1988-1992	Electrophysiology
University of Florence School of Medicine, Italy	Specialization *cum laude*	1992	Pharmacology
Full General Medical Council, UK	Registration	1992	Medicine

Laura Ballerini graduated (MD) at the Florence School of Medicine, Università di Firenze, Italy in 1988. She was a Postdoctoral fellow (*Physiology Department*) at UCL (London, UK) from 1991 and later became assistant professor in Physiology at the *Biophysics Sector* of the International School for Advanced Studies (SISSA-ISAS) of Trieste, Italy in 1995. In 2002 Laura Ballerini became associate professor of Physiology at the *Life Science Department*, Università di Trieste (www.units,it), Italy.
From 2012 she became full professor of Physiology, at the *Life Science Department*, Università di Trieste, Italy and since 2013 she has a joint appointment with the International School for Advanced Studies (SISSA-ISAS www.sissa.it), Trieste, Italy.
She has been working for several years on the physiology of spinal cord neurons/spinal cord networks and has vast experience in using a variety of experimental electrophysiological techniques and in vitro model systems. Laura Ballerini has provided important contribution to the understanding of spinal network physiology, plasticity and development. Recently, Laura Ballerini has been working on the interactions between living neurons and micro-nano fabricated substrates or bioactive-composite containing carbon nanotubes. She demonstrated that carbon nanotubes substrates boost neuronal network activity under chronic growth conditions by enhancing the occurrence of spontaneous postsynaptic currents.
From 2006 to 2010 Laura Ballerini coordinated an EU project (www.neuronano.net) designed to exploit the convergence of nanotechnology and neurobiology in view of the development of novel neuro-implantable devices to treat neurological traumatic and degenerative lesions. Since 2009 Laura Ballerini is coordinating the neurobiology team in the ERC project CARBONANOBRIDGE design to apply nanotechnology to contemporary neuroscience in the perspective of novel neuroimplantable devices and drug nanovectors, engineered to treat neurological and neurodegenerative lesions. The scientific strategy at the core of the proposal is the convergence between nanotechnology, chemistry and neurobiology. Such convergence, beyond helping understand the functioning and malfunctioning of the brain, can stimulate further research in this area and may ultimately lead to a new generation of nanomedicine applications in neurology and to new opportunities for the health care industry.
http://www.frontiersin.org/people/LauraBallerini/1325/profile