Lorenzo Cangiano, PhD

Curriculum

1988 International Baccalaureate high school diploma, United World College of the Adriatic, Trieste.

1988–96 Master's program in Electrical Engineering, University of Bologna.

1993 One year exchange at the University of California San Diego.

1995 Master's thesis research work with Dr. Alessandro Treves on the application of integrate and fire network models, to the study of autoassociative circuits in the cerebral cortex. Cognitive Neuroscience Sector of the International School for Advanced Studies (SISSA), Trieste.

1996 Master's degree in Microelectronics and Bioengineering, University of Bologna.

1997 One year mandatory military service in the Alpine Corps. SMALP and Brig. Julia.

1998–04 Doctoral program with Dr. Sten Grillner at the Dept. of Neuroscience of the Karolinska Institute, Stockholm.

2004 PhD degree. Thesis title: "Mechanisms of rhythm generation in the lamprey locomotor network".

2004 Postdoctoral work with Dr. Ansgar Büschges on the coordination between myotomal and fin motoneurons in Lamprey. Dept. of Animal Physiology, Zoological Institute, University of Köln, Germany.

2005–08 Postdoctoral work with Dr. Luigi Cervetto on the functional role of HCN channels in rod bipolar cells of the mouse retina. Dept. of Psychiatry and Neurobiology, University of Pisa.

2009– Assistant Professor of Physiology. Dept. of Physiological Sciences. Faculty of Medicine, University of Pisa.

Fellowships and Achievements

1986 Two year fellowship to attend the United World College of the Adriatic, Trieste.

1998 Two year fellowship for studies abroad from the University of Bologna.

1999 Three year Marie Curie fellowship from the European Commission.

2004 Invited oral presentation. Symposium on "Multidisciplinary approaches to sensorimotor integration", National Institute for Physiological Sciences of Japan, Okazaki.

2005 Chairman and speaker. Symposium on "The role of central pattern generators in the expression of pathologic motor behaviors", Meeting of the Italian Neuroscience Society, Ischia.

2005 Evaluation as "must read" of Cangiano and Grillner (2005) in Faculty of 1000 (F1000.com/1013968).

2007 Invited speaker. Symposium on "Generating rhythmic movement: from microcircuits to complex motor programs", Meeting of the German Neuroscience Society, Göttingen.

2009 Invited speaker. Meeting on "Nature, Nurture and Future: le acquisizioni sociali delle culture scientifiche dopo Galilei, Descartes e Darwin", Firenze.

2012 Cover image of Neuroscience, vol. 210.

2012 Perspectives article on Cangiano et al., (2012) by Dr. L. Lagnado in the Journal of Physiology. Cover image of the same issue.

Recent Abstracts

Asteriti S, Gargini C, Cervetto L, Cangiano L (2011). A single cell study of electrical coupling between mouse rods and cones. ERM 2011. Amsterdam, The Netherlands.

Selected Papers

Cangiano L, Asteriti S, Cervetto L, Gargini C (2012). The photovoltage of rods and cones in the dark–adapted mouse retina. Journal of Physiology. 590, 3841–55. [Perspectives article by Dr. L. Lagnado published in the same issue]

Della Santina L*, Piano I*, Cangiano L*, Caputo A, Ludwig A, Cervetto L, Gargini C (2012). Processing of retinal signals in normal and HCN deficient mice. PLoS ONE 7, e29812.

Cangiano L, Hill RH, Grillner S (2012). The hemisegmental locomotor network revisited. Neuroscience 210, 33–7.

Cangiano L (2010). From behavior to its underlying biological substrate: an experimental journey into the genesis of movement. Human Evolution 25, 189–199.

Mentel T, Cangiano L, Grillner S and Büschges A (2008). Neuronal substrates for state-dependent changes in coordination between motoneuron pools during fictive locomotion in the lamprey spinal cord. Journal of Neuroscience 28, 868–879.

Cangiano L, Gargini C, Della Santina L, Demontis GC and Cervetto L (2007). High–pass filtering of input signals by the Ih current in a non–spiking neuron, the retinal rod bipolar cell. PLoS ONE 2, e1327.

Cangiano L and Grillner S (2005). Mechanisms of rhythm generation in a spinal locomotor network deprived of crossed connections: the lamprey hemicord. Journal of Neuroscience 25, 923–35.

Cangiano L and Grillner S (2003). Fast and slow locomotor burst generation in the hemi-spinal cord of the lamprey. Journal of Neurophysiology 89, 2931–42.

Buffelli M, Busetto G, Cangiano L and Cangiano A (2002). Perinatal switch from synchronous to asynchronous activity of motoneurons: link with synapse elimination. Proc Natl Acad Sci USA 99, 13200–5.

Cangiano L, Wallén P and Grillner S (2002). Role of apamin–sensitive KCa channels for reticulospinal synaptic transmission to motoneuron and for the afterhyperpolarization. Journal of Neurophysiology 88, 289–99.