
MARCO FELIGIONI

Group Leader

**Study of post-translational modifications
and neuronal signaling Laboratory**

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Dr. Feligioni has studied Pharmaceutical chemistry at the University of Genoa where he took his degree in the department of neuroscience of Pharmacy Faculty. The thesis he has worked on in the laboratory directed by Prof. Anna Pittaluga was on the toxic role of HIV1-TAT protein at the presynaptic side of neurons by working mainly on release of neurotransmitter from stimulated synaptosomes.

In the same department he started his PhD in Pharmacology and Toxicology in 2002 and he spent half of the PhD abroad working in the Department of Anatomy (MRC Centre) at the University of Bristol in the laboratory directed by Prof. Jeremy Henley. In this period he was interested in investigating the presynaptic AMPA and NMDA receptors trafficking in the

synapses subfractions. Moreover he started to work on synaptic protein SUMOylation discovering that SUMO-1 synaptic alterations have an effect on the release of glutamate.

After this observation several papers, from other authors, demonstrated that SUMOylation controls the release mechanism by modifying the activity of Syntaxin1a, Synapsin and other SNARE complex proteins.

After the PhD he continued to study protein SUMOylation at Bristol University but on September 2009 he moved to Sweden in the Neuroscience department at Karolinka Institutet working in the laboratory of Prof. Ibanez. He won a fellowship grant (from Wenner-Gren Foundations) that financed his work for two years focused on understanding the possible interaction between SUMOylation and NTR-p75 receptors and eventually the role of this interaction.

In 2010 he came back to Italy and he took a senior post doc position at Mario Negri Institute in Milan in which he was investigating the role of SUMOylation in correlation with the apoptotic activity of JNK proteins and also continued to work on the release mechanisms of glutamate by presynaptic preparations.

In 2012 moved to Rome at EBRI Institute to install a new molecular and cellular biology unit in the laboratory of Pharmacology of Synaptic Diseases.

From 2016 is head of his laboratory in which continue to study the role of protein SUMOylation in neurodegenerative pathologies like ALS, Alzheimer's, Parkinson's and the mechanism of presynaptic release of neurotransmitters.

Qualifications

1999 Graduated in Pharmaceutical Chemistry at University of Genoa

2005 PhD in Pharmacology and Toxicology at University of Genoa

2005 Post Doc fellowship at Department of Anatomy MRC centre of Bristol, Uk

2008 Post Doc fellowship at Department of Neuroscience of Karolinska Institute University, Stockholm, Sweden

2010 Post Doc fellowship at Department of Neuroscience of Mario Negri Institute, Milan, Italy

2012 Post Doc fellowship at EBRI Institute, Rome, Italy

2016 Group Leader at EBRI Institute, Rome, Italy

Selected publications

2019

Mango D, Saidi A, Cisale GY, Feligioni M, Corbo M, Nisticò R. Targeting Synaptic Plasticity in Experimental Models of Alzheimer's Disease. *Front Pharmacol.* 2019 Jul 16;10:778. doi: 10.3389/fphar.2019.00778. eCollection 2019. Review.

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2017

Florenzano F, Veronica C, Ciasca G, Ciotti MT, Pittaluga A, Olivero G, Feligioni M, Iannuzzi F, Latina V, Maria Sciacca MF, Sinopoli A, Milardi D, Pappalardo G, Marco S, Papi M, Atlante A, Bobba A, Borreca A, Calissano P, Amadoro G. Extracellular truncated tau causes early presynaptic dysfunction associated with Alzheimer's disease and other tauopathies. *Oncotarget.* 2017 Apr 22;8(39):64745-64778. doi: 10.18632/oncotarget.17371. eCollection 2017 Sep 12.

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