

Giuseppe Talani was born in Italy where he obtained his Master's degree in Neuroscience on 2001. On 2005 he got the PhD in Neuroscience in the Laboratory of Electrophysiology at the University of Cagliari. On 2007 he had a 2 years intense training in the David Lovinger's Laboratory for Integrative Neuroscience (NIAAA, NIH, USA), where he has been involved in the study of pharmacological action of ethanol on CNS and its interaction with the endocannabinoid system, he then came back in Italy to start a new project regarding the stress-related effects on cognition and ethanol addiction in rodents. Starting from 2012 he joined the National Research Council where he focused his research on early life stress-related effects on dramatic modifications in several brain regions involved in the control of learning and memory formation and addiction such as changes in neuronal plasticity in crucial brain areas. During this time, he enjoyed several collaborations with different research Labs which provided different really exciting research papers related to several aspects in the neurophysiology of addiction and neurodegenerative disorders. He actually has a strong collaboration with the University of Cagliari training dozens of Master and PhD students on electrophysiological techniques and animal behavior in the field of stress and addiction where he has been involved for 20 years.

Most important publications:

- Cannizzaro C*, **Talani G*** et al. Dopamine restores limbic memory loss, dendritic spine structure and NMDAR-dependent LTD in the nucleus accumbens of alcohol-withdrawn rats. *J Neurosci*. 2019
- Maccioni R*, Setzu MD*, **Talani G*** et al. Standardized phytotherapeutic extracts rescue anomalous locomotion and electrophysiological responses of TDP-43 *Drosophila melanogaster* model of ALS. *Scientific Report* 2018
- Biggio F*, **Talani G***, et al. Low doses of prenatal ethanol exposure and maternal separation alter HPA axis function and ethanol consumption in adult male rats. *Neuropharmacology*. 2018
- De Rose F*, Marotta R*, **Talani G***, et al. Differential effects of phytotherapeutic preparations in the hSOD1 *Drosophila melanogaster* model of ALS. *Sci Rep*. 2017 Jan 19;7:41059
- **Talani G** et al. Isolation rearing reduces neuronal excitability in dentate gyrus granule cells of adolescent C57BL/6J mice: role of GABAergic tonic currents and neurosteroids. *Front. Cell. Neurosci*. 2016
- **Talani G**, et al. Enhanced Glutamatergic Synaptic Plasticity in the Hippocampal CA1 Field of Food-Restricted Rats: Involvement of CB1 Receptors. *Neuropsychopharmacology*. 2016
- **Talani G** and Lovinger DM. Interactions between ethanol and the endocannabinoid system at GABAergic synapses on basolateral amygdala principal neurons. *Alcohol*. 2015
- Spiga S*, **Talani G.***, et al. Hampered long-term depression and thin spine loss in the nucleus accumbens of ethanol-dependent rats. *Proceedings of the National Academy of Sciences of the United States of America (PNAS)*, 2014

- Dazzi L*, **Talani G***, et al. Involvement of the Cannabinoid CB1 Receptor in Modulation of Dopamine Output in the Prefrontal Cortex Associated with Food Restriction in Rats. *PLoS One*. 2014
- **Talani G**, et al. Increased Voluntary Ethanol Consumption and Changes in Hippocampal Synaptic Plasticity in Isolated C57BL/6J Mice. *Neurochem Res*. 2014
- **Talani G**, et al. Enhanced sensitivity to ethanol-induced inhibition of LTP in CA1 pyramidal neurons of socially isolated C57BL/6J mice: role of neurosteroids. *Frontiers in Neuroendocrine Science*, 2011 Oct 21;2:56. doi: 10.3389/fendo.2011.00056.
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- Sanna E, Mostallino MC, Murru L, Carta M, **Talani G**, Zucca S, Mura ML, Maciocco E, and Biggio G. Changes in Expression and Function of Extrasynaptic GABAA Receptors in the Rat Hippocampus During Pregnancy and After Delivery. *J Neuroscience* 2009
- Adermark L, **Talani G**, Lovinger DM. Endocannabinoid-dependent plasticity at GABAergic and glutamatergic synapses in the striatum is regulated by synaptic activity. *Eur J Neurosci*. 2009.
- Sheinin A, **Talani G**, Davis M, Lovinger DM. Endocannabinoid- and mGluR5-dependent Short-Term Synaptic Depression in an Isolated Neuron/Bouton Preparation from the Hippocampal CA1 Region. *J Neurophysiology* 2008 Aug;100(2):1041-52.
- Sanna E, **Talani G**, Busonero F, Pisu MG, Purdy RH, Serra M, Biggio G. Brain steroidogenesis mediates ethanol modulation of GABAA receptor activity in rat hippocampus. *J Neurosci*. 2004
- Sanna E, Mostallino MC, Busonero F, **Talani G**, Tranquilli S, Mameli M, Spiga S, Follesa P, Biggio G. Changes in GABA(A) receptor gene expression associated with selective alterations in receptor function and pharmacology after ethanol withdrawal. **J Neurosci**. 2003