Claudia Espinoza Martínez, Ph.D.

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Scientific education

2013 – 2019	**Ph.D. Neuroscience** *(Best IST thesis award)*	Institute of Science and Technology (IST) Austria.
2009 – 2011	**M.Sc. Biological Sciences mention Neuroscience** *(Maximum distinction)*	Faculty of Science, University of Valparaiso, Chile. Center for Neurobiology and Brain Plasticity (CNPC).
2003 – 2000	**Degree in Kinesiology** (*Summa cum laude*)	Faculty of Medicine, University of Valparaiso, Chile.

Research experience

2020 – present	**Postdoctoral Fellow**	Medical University of Vienna. Austria. Center for Brain Research, Cognitive Neurobiology.
2013 – 2019	Ph.D. student	IST Austria, Cellular Neuroscience: Peter Jonas group.
2013	Rotation student	IST Austria, Systems Neuroscience: Jozsef Csicsvari group.
		IST Austria, Synthetic Biology: Harald Janovjak group.
2010 – 2011	Assistant student	Faculty of Science, University of Valparaiso, Chile CNPC, Marco Fuenzalida group.

Teaching experience

2015	Teaching assistance	Institute of Science and Technology (IST) Austria Course 'Molecules, cells, and models'.
2012 – 2011	Lecturer	Faculty of Medicine, University of Valparaiso, Chile Kinesiology division. Lecture of neurological rehabilitation.
2012 – 2008	Lecturer	Faculty of Medicine, University of Valparaiso, Chile Kinesiology division. Lecture of Human anatomy and Neuroanatomy.

Awards and merits

1. **Outstanding Ph.D. Thesis Award.** Annual award given by IST Austria. (2019)
2. **Article Recommendation by** *F1000* rated as exceptional. (2018)
3. **Scholarship CONICYT.** Governmental scholarship for M.Sc. studies in Chile. (2009-2010)
4. **Academic Excellence of the Faculty of Medicine.** University of Valparaiso, Chile (2008)
5. **Distinction of the Anatomy department.** University of Valparaiso, Chile. (2008)
6. **Scholarship Juan Gómez Millas.** To finance undergraduate studies in Chile. (2003-2007)

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Publications

1. Guzman SJ, Schlögl A, **Espinoza C**, Zhang X, Suter B and Jonas P (2019) Fast signaling and focal connectivity of PV^+ interneurons ensure efficient pattern separation by lateral inhibition in a full-scale dentate gyrus network model. BioRxiv. *DOI: https://doi.org/10.1101/647800*.

2. **Espinoza C**, Guzman SJ, Zhang X and Jonas P (2018) $Parvalbumin^+$ interneurons obey unique connectivity rules and establish a powerful lateral-inhibition microcircuit in dentate gyrus. *Nat Commun* 9: 4605**.** *DOI: 10.1038/s41467-018-06899-3*.

3. Fuenzalida M, **Espinoza C**, Pérez MÁ, Tapia-Rojas C, Cuitino L, Brandan E, Inestrosa NC (2016) Wnt signaling pathway improves central inhibitory synaptic transmission in a mouse model of Duchenne muscular dystrophy. *Neurobiol Dis*. 86:109-120. *DOI: 10.1016/j.nbd.2015.11.018*.

4. Vandael DH, **Espinoza C**, Jonas P (2015) Excitement about inhibitory presynaptic terminals. *Neuron*. 85:1149-1151. *DOI: 10.1016/j.neuron.2015.03.006*.

Oral presentations and posters

1. The role of $Parvalbumin^+$ interneurons in pattern separation. (2019) Workshop on cognitive and behavioral screening of rodents and how to apply the 3Rs policy in this research. Session Neuroscience. Brno, Czech Republic.

2. **Espinoza C**, Guzman SJ, Csicsvari JL, Jonas P (2018) Unique connectivity of $parvalbumin^+$ interneurons enables efficient pattern separation in hippocampal microcircuits. Program No. 166.09. Neuroscience Meeting Planner. San Diego, CA: Society for Neuroscience. Online.

3. **Espinoza C**, Guzman SJ, and Jonas P (2017) Synaptic excitation of PV-expressing interneurons on inhibition in the dentate gyrus of the hippocampus 15th ANA Austrian Neuroscience Association. IST Austria.

4. **Espinoza C**, Guzman SJ, Jonas P (2016) Abundance of recurrent and lateral inhibition in the dentate gyrus of the hippocampus. Program No. 782.08. Neuroscience Meeting Planner. San Diego, CA: Society for Neuroscience. The United States. Online.

5. **Espinoza C**; Ahumada J; Roncagliolo M; Bonansco C and Fuenzalida M (2011) Modulation of GABAergic synaptic plasticity by activation of M1 and M2 muscarinic receptors. LIX Annual Meeting of the Biology Society of Chile. 6-10 November.

6. **Espinoza C**; Olivares V; Bonansco C and Aliaga E (2009) Taiep neuropathic mutant shows alteration in synaptic proteins and neuronal cytoskeleton. XXIII Annual Meeting of the Cellular Biology Society of Chile. November 1-5, 2009 Pucón, Chile.

7. Herrera P; Aparici V; **Espinoza C** y Aliaga E (2009) Maternal deprivation induces long lasting increase of 3´UTR- Long BDNF and ARC mRNAs in the hippocampus. International Workshop, Motivated Behavior Stress and Addiction. Pontificia Universidad Católica de Chile. January 12-15.