

BIOGRAPHICAL SKETCH

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NAME Ardiles, Álvaro Oscar		POSITION TITLE Postdoctoral Fellow	
eRA COMMONS USER NAME (credential, e.g., agency login) aardiles			
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	MM/YY	FIELD OF STUDY
Pontificia Universidad Católica de Valparaíso Universidad de Valparaíso	B.S. Ph.D.	01/05 12/11	Biochemistry Neuroscience

A. Personal Statement**B. Positions and Honors****Positions and Employment**

2011

2012 Postdoctoral Fellow at Laboratorio de neurobiología, Centro Interdisciplinario de Neurociencia de Valparaíso, Universidad de Valparaíso.

2013 Postdoctoral Fellow at Laboratorio de comunicación intercelular, Centro Interdisciplinario de Neurociencia de Valparaíso, Universidad de Valparaíso.

Other Experience and Professional Memberships

2004-06 Research assistant, Fondecyt #1020812 (PI: Cárdenas, AM).

2005 Visiting student, departamento de fisiología médica y biofísica, Universidad de Sevilla.

2006 Research assistant, Anillos ACT-45, (PI: Schmachtenberg, O).

2008 Visiting student, Mind/Brain Institute, The Johns Hopkins University, USA. April-July.

2009 Visiting student, Centro de Regulación Celular y Patología Joaquín V. Luco (CRCP), Facultad de Ciencias Biológicas, Pontificia Universidad Católica de Chile, Chile. August-December.

2010 Visiting student, Mind/Brain Institute, The Johns Hopkins University, USA. May-July.

Honors

2007 Fellow MECESUP UVA0603

2008 Fellow CONICYT 21080345

2009 Fellow CONICYT AT24091109

2012 Postdoctoral Fellow ICM-MILENIO PO9-022-F

2013 Postdoctoral Fellow FONDECYT 3130759

C. Selected Peer-reviewed Publications (Selected from 42 peer-reviewed publications)

Recent publications of importance to the field (in chronological order)

1. **Alvaro O. Ardiles**, Carolina Flores-Muñoz, Hannah Monyer, Ana M. Cárdenas, Adrian G. Palacios, Pablo Muñoz, Juan C. Sáez, Marco Fuenzalida & Agustín D. Martínez. (2013). Pannexin 1 regulates the bidirectional hippocampal synaptic plasticity in the adult mice. *Under preparation*.
2. Lily Y. L. Chang, Jennifer Lowe, **Alvaro O. Ardiles**, Julie Lima, Angus C. Grey, Ken Robertson, Helen Danesh-Meyer, Adrian G. Palacios, Monica L. Acosta. (2013). Alzheimer's disease in the human eye. Clinical tests that identify ocular and visual information processing deficit as biomarkers. *Alzheimer Dement* (In press).
3. **Ardiles AO**, Ewer J, Acosta ML, Kirkwood A, Martinez A, Ebensperger LA, Bozinovic F, Lee TM, Palacios AG. (2013). Octodon degus (Molina 1782): A model in comparative biology and biomedicine. *Cold Spring Harb Protoc.* 4:312-8.
4. Sunggu Yang, Andrea Megill, **Alvaro O. Ardiles**, Sarah Ransom, Trinh Tran, Ming Teng Koh, Hey-Kyoung Lee, Michela Gallagher and Alfredo Kirkwood. (2013). Integrity of mGluR-LTD in the Associative/Commissural Inputs to CA3 Correlates with Successful Aging in Rats. *J. Neurosci.* 33:12670 – 12678.
5. Cárdenas AM, **Ardiles AO**, Barraza N, Baéz-Matus X, Caviedes P. (2012). Role of tau protein in neuronal damage in Alzheimer's disease and down syndrome. *Arch Med Res.* 8:645-54.
6. **Ardiles AO**, Tapia-Rojas CC, Mandal M, Alexandre F, Kirkwood A, Inestrosa NC, Palacios AG. (2012). Postsynaptic dysfunction is associated with spatial and object recognition memory loss in a natural model of Alzheimer's disease. *PNAS.* 109:13835-40.
7. Huang S, Treviño M, He K, **Ardiles A**, de Pasquale R, Guo Y, Palacios A, Hugarir R, Kirkwood A. (2012). Pull-Push Neuromodulation of LTP and LTD Enables Bidirectional Experience-Induced Synaptic Scaling in Visual Cortex. *Neuron* 73,497-510.
8. Vielma A, **Ardiles A**, Delgado L and Schmachtenberg O. (2008). The elusive crypt olfactory receptor neuron: evidence for its stimulation by amino acids and camp pathway agonists. *J. Exp. Biol.* 211: 2417-2422.
9. **Ardiles AO**, Gonzalez-Jamett AM, Maripillan J, Naranjo D, Caviedes P, and Cardenas AM. (2007). Calcium channel subtypes differentially regulate fusion pore stability and expansion. *J. Neurochem.* 103: 1574-1581.
10. **Ardiles AO**, Maripillán J, Lagos V, Toro R, Mora I, Villarroel L, Alés E, Borges R and Cárdenas AM. (2006). A rapid exocytosis mode in chromaffin cells with a neuronal phenotype. *J. Neurochem.* 99: 29-41.

Ongoing Research Support

FONDECYT 3130759 (PI:Ardiles AO). Role of pannexin1 in synaptic physiology: 2013-15. This grant seeks to investigate the role of pannexin1 in synaptic function and plasticity in the hippocampus from mice.

INNOVA-CORFO 13IDL2-18271 (PI:Muñoz PC). 2013 – 2016. Obtención de astaxantina como agente anti-envejecimiento cerebral, a partir del descarte de la centolla (Co-Director).

Completed Research Support