



Chiayu Chiu
Curriculum Vitae

Centro Interdisciplinario de Neurociencias de Valparaíso
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Education

1997-2005 Ph.D. – Neuroscience, University of Rochester, Rochester NY
1992-1996 B.S. – Neuroscience, New York University, New York NY

Honors and Awards

- National Institute of Mental Health grant (1K01MH097961-01A, PI: Chiayu Chiu)
4/15/2013 - 10/31/2016
“Inhibitory regulation of dendritic calcium signals in the prefrontal cortex”
- Epilepsy Foundation Postdoctoral Fellowship (1/2011-12/2011)
- National Institute of Neurological Disorders and Stroke Postdoctoral Trainee (12/2005-11/2008)
“Mechanisms of Intercellular Communication” (5T32NS007439-09)
- National Institute of Mental Health Predoctoral Trainee (2003-2004)
“Research Training in Learning, Development and Biology” (5T32MH019942-07)
- National Institute of Mental Health Predoctoral Trainee (1999-2000)
“Training in Neuroscience” (5T32MH019963-05)
- Founder’s Day Award, New York University (6/1996)
- United Federation of Teachers Scholarship Award (9/1992-6/1996)

Invited Seminar Lectures

- NUMIND International Symposium “Biology of Neuropsychiatric disorder” (4/2016)
- Neuroscience Seminar at Albert Einstein College of Medicine (6/2015)
- Gordon Research Conference on Synaptic Transmission (8/2014)
- Cold Spring Harbor meeting on Neural Circuits (4/2014)
- Gordon Research Seminar on Inhibition (6/2013)
- Yale Microscopy Workshop (6/2012)

Research Experience

2016- CINV-Max Planck Tandem Research Group Leader
2010-2016 Research Associate/Associate Research Scientist
Dept. of Neurobiology, Yale University, New Haven CT
2005-2010 Research Fellow
Dept. of Neuroscience, Albert Einstein College of Med., Bronx NY

Teaching Experience

Spring 2014 Instructor, Human Neuroanatomy Lab
Yale School of Medicine, New Haven CT
Fall 2005 Teaching Assistant, Molecular Cellular Neuroscience
Albert Einstein College of Med., Bronx NY
Fall 1998 Teaching Assistant, Introduction to Neurobiology
University of Rochester, Rochester NY

Publications

Original research papers:



Chiu C, Weliky M. Spontaneous activity in developing ferret visual cortex in vivo. **J. Neurosci.** 21, 8906-8914, 2001.

Chiu C, Weliky M. Relationship of correlated spontaneous activity to functional ocular dominance columns in the developing visual cortex. **Neuron** 35, 1123-1134, 2002.

Chiu C, Weliky M. Multi-electrode recording from the developing visual pathway of awake behaving ferrets. **J. Neurosci. Methods** 136, 55-61, 2004.

Fiser J, Chiu C, Weliky M. Small modulation of ongoing cortical dynamics by sensory input during natural vision. **Nature** 431, 573-578, 2004.

Chiu CQ, Castillo PE. Input-specific plasticity at excitatory synapses mediated by endocannabinoids in the dentate gyrus. **Neuropharmacology** 54, 68-78, 2008.

Kaesler PS, Kwon HB, Chiu CQ, Deng L, Castillo PE, Südhof TC. RIM1alpha and RIM1beta are synthesized from distinct promoters of the RIM1 gene to mediate differential but overlapping synaptic functions. **J. Neurosci.** 28, 13435-13447, 2008.

Chiu CQ, Puente N, Grandes P, Castillo PE. Dopaminergic modulation of endocannabinoid-mediated plasticity at GABAergic synapses in the prefrontal cortex. **J. Neurosci.** 30, 7236-7248, 2010.

Chávez AE, Chiu CQ, Castillo PE. TRPV1 activation by endogenous anandamide triggers postsynaptic long-term depression in dentate gyrus. **Nature Neurosci.** 13, 1511-1518, 2010.

Tsetsenis T, Younits TJ, Chiu CQ, Kaesler PS, Castillo PE, Südhof TC. Rab3B protein is required for long-term depression of hippocampal inhibitory synapses and for normal reversal learning. **PNAS** 108, 14300-14305, 2011.

Chiu CQ*, Lur G*, Morse TM, Carnevale NT, Ellis-Davies GC, Higley MJ. Compartmentalization of GABAergic inhibition by dendritic spines. **Science** 340, 759-62, 2013. *equal contribution

Olson JP, Kwon HB, Takasaki KT, Chiu CQ, Higley MJ, Sabatini BL, Ellis-Davies GC. Optically selective two-photon uncaging of glutamate at 900nm. **J. Am. Chem. Soc.** 135, 5954-7, 2013.

Amatrudo J, Olson JP, Lur G, Chiu CQ, Higley MJ, Ellis-Davies GC. Wavelength-selective one- and two-photon uncaging of GABA. **ACS Chem. Neurosci.** 5, 64-70, 2014.

Reviews:

Chiu C, Weliky M. Synaptic modification by vision. Perspectives in **Science** 300, 1890-1891, 2003.

Castillo PE, Chiu CQ, Carroll RC. Long-term plasticity at inhibitory synapses. **Current Opinion in Neurobiology** 21, 328-338, 2011.

Book Chapters:

Chiu C, Weliky M. The role of neural activity in the development of orientation selectivity. In: *The Visual Neurosciences*. L. Chalupa, J. Werner (eds.), MIT Press, Cambridge, MA, pp. 117-125, 2003.

Chiu CQ, Castillo PE. Endocannabinoid-mediated long-term depression at inhibitory synapses. In: *Inhibitory Synaptic Plasticity*. MA Woodin, A. Maffei (eds.), Springer Science+Business Media, Inc., New York, NY, pp. 149-166, 2010.

Reviewer for:

Frontiers Molecular Neuroscience