

## **Kevin O'Connor, Ph.D.**

Research Specialist  
Center for Neuroscience  
1544 Newton Ct.  
Davis, CA 95618



### **Specialty**

Single-unit electrophysiological recording and neural coding related to sensory processing and motor action.

### **Clinical and Research Interests**

Kevin O'Connor is a neuroscientist with research and clinical interests in sensory processes and motor control. He specializes in single-neuron electrophysiological recording in sensory and motor-related systems and for clinical behavioral evaluation in movement-impaired individuals.

### **Education**

Columbia University  
New York, New York  
Ph.D. 1990

Bucknell University  
Lewisburg, Pennsylvania  
M.A. 1977

Muhlenberg College  
Allentown, Pennsylvania  
B.A. 1975

### **Fellowships**

University of Massachusetts  
Amherst, Massachusetts  
1990-1994  
*Behavioral Neuroscience*

University of California, Davis  
Davis, California  
1994-2001  
*Auditory Neuroscience*

### **Professional Memberships**

Society for Neuroscience  
American Association for the Advancement of Science

## Select Recent Publications

Niwa M, O'Connor KN, Engall, E, Johnson JS, and Sutter ML (2014) Hierarchical effects of task-engagement on amplitude modulation encoding in auditory cortex. *J Neurophysiol.* 113, 307-27, (PMID: 25298387).

Niwa M, Johnson JS, O'Connor KN and Sutter ML (2012) Active engagement improves primary auditory cortical neurons' ability to discriminate temporal modulation. *J Neurosci.* 32, 9323-34, (PMC3410753).

Johnson JS, Yin P, O'Connor KN and Sutter ML (2012) Ability of primary auditory cortical neurons to detect amplitude modulation with rate and temporal codes: Neurometric analysis. *J Neurophysiol.* 107, 3325-41, (PMC3378404).

Niwa M, Johnson JS, O'Connor KN and Sutter ML (2012) Activity related to perceptual judgement and action in primary auditory cortex. *J Neurosci.* 32, 3193-210, (PMC3572866).

O'Connor KN, Johnson JS, Niwa M, Noriega NC, Marshall EA and Sutter ML (2011) Amplitude modulation detection as a function of modulation frequency and stimulus duration: Comparisons between macaques and humans. *Hearing Res.* 277, 37-43 (PMC3418142).

O'Connor KN, Yin, P, Petkov CI and Sutter ML (2010) Complex spectral interactions encoded by auditory cortical neurons: Relationship between bandwidth and pattern. *Front Systems Neurosci.* 5, 145 (1-16), (PMC2998047).

*Petkov CI, O'Connor KN and Sutter ML (2007) Encoding of illusory continuity in primary auditory cortex. Neuron.* 54, 153-165, (PMC2628590).

O'Connor KN, Petkov CI, Sutter ML (2005) Adaptive stimulus optimization for auditory cortical neurons. *J Neurophysiol.* 94, 4051-67, (PMID: 16135553).

Petkov CI, O'Connor KN, and Sutter ML (2003) Illusory sound perception in macaque monkeys. *J Neurosci.* 23, 9155-9161, (PMID: 14534249).