

Postdoc Position: Experimental Neural Dynamics

A postdoc position is available in the laboratory of **Dr. Robert Butera** at the **Georgia Institute of Technology**, Atlanta, GA. The postdoc will conduct intracellular electrophysiology experiments using dynamic clamp techniques to study mechanisms underlying neuronal synchrony. The individual will also develop and/or evaluate user modules for our dynamic clamp system RTX1 (www.rtxi.org) which will be used for these experiments.

While the postdoc will work in the lab of Dr. Butera, (s)he will be part of a dynamic collaborative team that includes the laboratories of **Dr. Astrid Prinz** at Emory University and **Dr. Carmen Canavier** at the LSU Health Sciences Center.

Atlanta is home to a vibrant computational neuroscience and neural dynamics community, with faculty at Georgia Tech, Georgia State, and Emory University all within close proximity of each other. Many local opportunities for collaboration exist.

REQUIRED: PhD, peer reviewed publications, demonstrated ability to conduct in vitro laboratory experiments

PREFERRED: electrophysiology experience, strong computational and/or modeling skills, experience with a well studied animal model (vertebrate or invertebrate) for neural circuits and central pattern generation

Salary is based on experience and NIH NRSA pay scales. For more information, contact Dr. Robert Butera (rbutera@gatech.edu).

Interested individuals should email a CV, representative publications, and a list of 3 references. All applications will be held in confidence.

Examples of recent relevant publications:

Achuthan S, Butera RJ, Canavier CC. Synaptic and intrinsic determinants of the phase resetting curve for weak coupling. *J Comput Neurosci*. 2010 Aug 11.

Cui J, Canavier CC, Butera RJ. Functional phase response curves: a method for understanding synchronization of adapting neurons. *J Neurophysiol*. 2009 Jul;102(1):387-98.

Preyer AJ, Butera RJ. Causes of transient instabilities in the dynamic clamp. *IEEE Trans Neural Syst Rehabil Eng*. 2009 Apr;17(2):190-8.

Preyer AJ, Butera RJ. Neuronal oscillators in *Aplysia californica* that demonstrate weak coupling in vitro. *Phys Rev Lett*. 2005 Sep 23;95(13):138103.