NC STATE UNIVERSITY

Comparative Medicine Institute

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Neuroscience, Neuroendocrinology and Electrophysiology

Research emphasis:

Our laboratory studies how steroid sex hormones modulate neuron function. We emphasize electrophysiology, non-canonical estrogen action, the role of genetic sex, and striatal brain regions.

Application:

- Hormone and sex influences on neuron function and disorders
- Whole-cell patch clamp technology

Collaboration potential:

- Patch clamp recording
- Steroid sex hormone function

Selected publications:

Dorris DM, Cao J, Willett JA, Hauser CA, Meitzen J. 2015. Intrinsic excitability varies by sex in pre-pubertal striatal medium spiny neurons. J Neurophysiol. 113:720-729.

Willett JA, Will TR, Hauser CA, Dorris DM, Cao J, Meitzen J. 2016. No evidence for sex differences in the electrophysiological properties and excitatory synaptic input onto nucleus accumbens shell medium spiny neurons. *eNeuro.* 3:ENEURO.0147-15.2016

Wong JE, Cao J, Dorris DM, Meitzen J. 2015. Genetic sex and the volumes of the caudate-putamen, nucleus accumbens core and shell: original data and a review. *Brain Structure and Function.* [Epub ahead of print].

Dorris DM, Hauser CA, Minnehan CE, Meitzen J. 2014. An aerator for brain slice experiments in individual cell culture plate wells. *J Neurosci Methods.* 238: 1-10.