

Scott W Harden, DMD, PhD

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EDUCATION & EXPERIENCE

- 2018 - present **Research Scientist**
Pharmacodynamics, University of Florida, Gainesville, FL
- 2016 - 2018 **Postdoctoral Scholar (Pharmacodynamics)**
College of Pharmacy, University of Florida, Gainesville, FL
- 2012 - 2016 **Ph.D. (Neuroscience)**
College of Medicine, University of Florida, Gainesville, FL
- 2009 - 2016 **D.M.D. (Dental Medicine)**
College of Dentistry, University of Florida, Gainesville, FL
- 2007 - 2009 **M.S. (Molecular Biology and Microbiology)**
University of Central Florida, Orlando, FL
- 2005 - 2007 **B.S. (Zoology)**
Union University, Jackson, TN
- 2003 - 2005 **A.A. (Biology)**
Valencia College, Orlando, FL

PUBLICATIONS

Cirino TJ, **Harden SW**, McLaughlin JP, Frazier CJ. 2020. Region-specific effects of HIV-1 Tat on intrinsic electrophysiological properties of pyramidal neurons in mouse prefrontal cortex and hippocampus. *Journal of Neurophysiology*. 123(4):1332-1341. [URL](#)

Pati D, **Harden SW**, Sheng W, Kelly KB, Kloet AD, Krause EG, Frazier CJ. 2020. Endogenous oxytocin inhibits hypothalamic CRH neurons following acute hypernatremia. *Journal of Neuroendocrinology* doi:10.1111/jne.12839 [URL](#)

Hernandez CM, Orsini CA, Labiste CC, Wheeler AR, Eyck TWT, Bruner MM, Sahagian TJ, **Harden SW**, Frazier CJ, Setlow B, Bizon JL. 2019. Optogenetic dissection of basolateral amygdala contributions to intertemporal choice in young and aged rats. 2019. *Elife* doi: 10.7554 [URL](#)

Tan Y, Singhal SM, **Harden SW**, Cahill KM, Nguyen DM, Colon-Perez LM, Sahagian TJ, Thinschmidt JS, de Kloet AD, Febo M, Frazier CJ, Krause EG. 2019. Oxytocin Receptors Are Expressed by Glutamatergic Prefrontal Cortical Neurons That Selectively Modulate Social Recognition. *Journal of Neuroscience* 39 17:3249-3263 [URL](#)

Hernandez CM, Orsini CA, Labiste C, Wheeler AR, Eyck TWT, Bruner MM, Sahagian TJ, **Harden SW**, Frazier CJ, Setlow B, Bizon JL. 2019. Aging alters the role of basolateral amygdala in intertemporal choice. *BioRxiv* doi: 10.1101/556894 [URL](#)

Harden SW, Frazier CJ. 2016. Oxytocin depolarizes fast-spiking hilar interneurons and induces GABA release onto mossy cells of the rat dentate gyrus. *Hippocampus*. 26 (9), 1124-1139 [URL](#) (and cover, [URL](#))

Graves CL, **Harden SW**, LaPato M, Nelson M, Amador B, Sorenson H, Frazier CJ, Wallet SM. 2014. A method for high purity intestinal epithelial cell culture from adult human and murine tissues for the investigation of innate immune function. *Journal of Immunological Methods*. 414:20-31 [URL](#)

Catalfamo DL, Calderon NL, **Harden SW**, Sorenson HL, Neiva KG, Wallet SM. 2013. Augmented LPS responsiveness in type 1 diabetes-derived osteoclasts. *Journal of Cellular Physiology*. 228(2):349-61 [URL](#)

Lin M, Chen QH, Wurster RD, Hatcher JT, Liu YQ, Li L, **Harden SW**, Cheng ZJ. 2010. Maternal diabetes increases small conductance Ca²⁺-activated K⁺ (SK) currents that alter action potential properties and excitability of cardiac motoneurons in the nucleus ambiguus. *Journal of Neurophysiology*. 104(4):2125-38 [URL](#)

Li L, Huang C, Ai J, Yan B, Gu H, Ma Z, Li AY, Xinyan S, **Harden SW**, Hatcher JT, Wurster RD, Cheng ZJ. 2010. Structural remodeling of vagal afferent innervation of aortic arch and nucleus ambiguus (NA) projections to cardiac ganglia in a transgenic mouse model of type 1 diabetes (OVE26). *Journal of Comparative Neurology*. 518(14):2771-93 [URL](#)

Lin M, Ai J, **Harden SW**, Huang C, Li L, Wurster RD, Cheng ZJ. 2010. Impairment of baroreflex control of heart rate and structural changes of cardiac ganglia in conscious streptozotocin (STZ)-induced diabetic mice. *Autonomic Neuroscience*. 155(1-2):39-48 [URL](#)

Lin M, **Harden SW**, Li L, Wurster RD, Cheng ZJ. 2010. Impairment of baroreflex control of heart rate in conscious transgenic mice of type 1 diabetes (OVE26). *Autonomic Neuroscience*. 152(1-2):67-74 [URL](#)

Yan B, Li L, **Harden SW**, Epstein PN, Wurster RD, Cheng ZJ. 2009. Diabetes induces neural degeneration in nucleus ambiguus (NA) and attenuates heart rate control in OVE26 mice. *Experimental Neurology*. 220(1):34-43 [URL](#)

Ai J, Wurster RD, **Harden SW**, Cheng ZJ. 2009. Vagal afferent innervation and remodeling in the aortic arch of young-adult Fischer 344 rats following chronic intermittent hypoxia. *Neuroscience*. 164(2):658-66 [URL](#)

Gu H, Zhang ZH, Epstein PN, Li L, **Harden SW**, Wurster RD, Cheng ZJ. 2009. Impaired baroreflex control of renal sympathetic nerve activity in type 1 diabetic mice (OVE26). *Neuroscience*. 161(1):78-85. [URL](#)

Yan B, Li L, **Harden SW**, Gozal D, Lin Y, Wead WB, Wurster RD, Cheng ZJ. 2009. Chronic intermittent hypoxia impairs heart rate responses to AMPA and NMDA and induces loss of glutamate receptor neurons in nucleus ambiguus of F344 rats. *American Journal of Physiology-Regulatory, Integrative and Comparative Physiology*. 296(2):R299-308 [URL](#)

PUBLISHED ABSTRACTS

Mohammed M, Sumners C, Sheng W, **Harden SW**, Frazier CJ, Johnson D, Scott KA, Krause EG, de Kloet AD. 2020. Angiotensin AT2 receptors in the solitary tract nucleus lower blood pressure via inhibition of GABA signaling. *The FASEB Journal*. [URL](#)

Setlow B, Orsini C, Betzhold S, Wheeler AR, Ten-Eyck T, Shallcross J, Singhal S, **Harden SW**, Schwendt M, Frazier CJ, Bizon J. 2019. Optogenetic Dissection of Contributions of the Nucleus Accumbens Shell to Decision Making Under Risk of Punishment. *American College of Neuropsychopharmacology Annual Meeting*. [URL](#)

Cirino TJ, Simons C, Stacy H, Eans S, Nefzi M, Wallman O, Hartzky L, Bunnell A, Kendrick J, Pei J, **Harden SW**, Frazier CJ, McLaughlin J. 2019. HIV-Tat Protein Modulates Cognitive Performance through Induction of Hyperglutamatergic Signaling in Brain. *The 25th Scientific Conference of the Society on Neuroimmune Pharmacology*. [URL](#)

Frazier CJ, Sheng W, **Harden SW**. 2018. Differential effects of osmotic stress on synaptic vs. paracrine signaling mechanisms in oxytocinergic magnocellular neurons. *FASEB Journal* 32 598.10-598.10 [URL](#)

Krause EG, Alleyne AR, Cahill KM, Smeltzer MD, Bruce EB, Tan Y, **Harden SW**, Frazier CJ, and de Kloet AD. 2018. Identifying angiotensin sensitive neurons in the lamina terminalis that coordinate endocrine, cardiovascular and behavioral responses mediating body fluid homeostasis. *FASEB Journal* 598.7 [URL](#)

Bruce EB, Domingos-Souza G, Smeltzer MD, Tan Y, Cahill K, **Harden SW**, Frazier CJ, Sumners C, Raizada MK, Krause EG, de Kloet AD. 2017. Neurons in the Nodose Ganglion that Express Angiotensin Type 1a Receptors Function as Primary Baroreceptor Afferents: An in vitro and in vivo Optogenetic Study. *American Heart Association, Council for High Blood Pressure*. [URL](#)

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Harden SW, Frazier CJ. 2015. Oxytocin receptor activation depolarizes spiny hilar interneurons and induces GABA release in the dentate gyrus of the rat hippocampus. *Society for Neuroscience*. 670.01/B107 [URL](#)

Harden SW, Krause EG, Frazier CJ. 2013. Identification and Selective Stimulation of Hypothalamic Corticotropin Releasing Hormone (CRH) Containing Neurons Expressing Light-Sensitive Channelrhodopsin-2, *Society for Neuroscience Meeting* [URL](#)

Moroz LL, **Harden SW**, Kohn AB, Fodor A, Citarella M, Kumar A, Frazier CJ, Foster T. 2013. The genomic portrait of hippocampal CA1 neurons: Identification and quantification of virtually all RNAs in single mammalian neurons using semiconductor sequencing. *Society for Neuroscience Meeting* [URL](#)

Harden SW, Cheng CJ. 2010. Distribution and morphology of catecholaminergic and cholinergic axons in whole-mount mouse atria. *Federation of American Societies for Experimental Biology* [URL](#)