

ERIC J. GONZALEZ

EDUCATION

- 2016 University of Vermont, Burlington, VT
Ph.D. in Neuroscience
- 2010 Muhlenberg College, Allentown, PA
B.S. in Neuroscience

RESEARCH EXPERIENCE

- 2016 – present Duke University, Durham, NC
Research Scientist, Advisor: Warren Grill, Ph.D.
Peripheral nerve stimulation and bladder function
- 2012 – 2016 University of Vermont, Burlington, VT
Graduate Research Assistant, Advisor: Margaret Vizzard, Ph.D.
Dissertation: A role for TGF- β in urinary bladder dysfunction with cystitis
- 2010 – 2011 University of Vermont, Burlington, VT
Laboratory and Research Technician, Advisor: Rae Nishi, Ph.D.
Adolescent brains, nicotine, and endogenous prototoxins
- 2008 – 2010 Muhlenberg College, Allentown, PA
Senior Research Assistant, Advisor: Gretchen Gotthard, Ph.D.
Neural substrates of learning and memory

HONORS AND AWARDS

- 2019 – present **K01 Mentored Research Scientist Development Award**, NIDDK
- 2016 – 2019 **K12 Urologic Research Scholar**, Duke University
- 2015 **Trainee Professional Development Award**, Society for Neuroscience
- 2013 – 2015 **Research Supplement to Promote Diversity in Health-Related Research**, NIDDK
- 2011 – 2013 **Graduate Teaching Assistantship**, University of Vermont
- 2011 – 2012 **N.E. Alliance for Graduate Education and Professoriate**, University of Vermont
- 2011 **The Academy for Future Science Faculty**, Northwestern University
- 2009 **Neuroscience Collaborative Research Grant**, Muhlenberg College

TEACHING EXPERIENCE

- 2013, 2014 University of Vermont College of Medicine, Burlington, VT
Teaching Assistant – “Medical Neural Science”

COMMUNITY OUTREACH

- 2013 – 2015 **Upward Bound**, University of Vermont, Burlington, VT
- 2012 **Vermont Regional Brain Bee**, University of Vermont, Burlington, VT

PROFESSIONAL AFFILIATIONS

- 2010 – present Society for Neuroscience

PRIMARY RESEARCH ARTICLES

McKee DC*, **Gonzalez EJ***, Amundsen CL, Grill WM. Randomized controlled trial to assess the impact of high concentration intraurethral lidocaine on urodynamic voiding parameters. *Urology* 2019; 133:72-77. PMID: 31465791. PMCID: PMC6842692. *co-first authors

Kisby CK, **Gonzalez EJ**, Visco AG, Amundsen CL, Grill WM. Randomized controlled trial to assess the impact of intraurethral lidocaine on urodynamic voiding parameters. *Female Pelvic Med Reconstr Surg* 2019; 25(4):265-270. PMID: 29300256. PMCID: PMC6034990.

Gonzalez EJ, Grill WM. Sensory pudendal nerve stimulation increases bladder capacity through sympathetic mechanisms in cyclophosphamide-induced cystitis rats. *Neurourol Urodyn* 2019; 38(1):135-143. PMID: 30350879. PMCID: PMC6529182.

Gonzalez EJ, Grill WM. The effects of neuromodulation in a novel obese-prone rat model of detrusor underactivity. *Am J Physiol Renal Physiol* 2017; 313(3):F815-F825. PMID: 28637788. PMCID: PMC5625106.

Gonzalez EJ, Heppner TJ, Nelson MT, Vizzard MA. Purinergic signalling underlies transforming growth factor-beta mediated bladder afferent nerve hyperexcitability. *J Physiol* 2016; 594(13):3575-3588. PMID: 27006168. PMCID: PMC4929319.

Gonzalez EJ, Peterson A, Malley S, Daniel M, Lambert D, Kosofsky M, Vizzard MA. The effects of tempol on cyclophosphamide-induced oxidative stress in rat micturition reflexes. *The Scientific World Journal*, 2015:545048. PMID: 25973443. PMCID: PMC4417973.

Gonzalez EJ, Girard BM, Vizzard MA. Expression and function of transforming growth factor-beta isoforms and cognate receptors in rat urinary bladder following cyclophosphamide-induced cystitis. *Am J Physiol Renal Physiol* 2013; 305(9):F1265-F1276. PMID: 23926183. PMCID: PMC3840223. Comment in: *J Urol*. 2014; 192(1):275.

INVITED REVIEW ARTICLES

Merrill L, **Gonzalez EJ**, Girard BM, Vizzard MA. Receptors, channels, and signalling in the urothelial sensory system in the bladder. *Nat Rev Urol* 2016; 13(4):193-204. PMID: 26926246. PMCID: PMC5257280.

Gonzalez EJ, Merrill L, Vizzard MA. Bladder sensory physiology: neuroactive compounds/receptors, sensory transducers and target-derived growth factors as targets to improve function. *Am J Physiol Regul Integr Comp Physiol* 2014; 306(12):R869-R878. PMID: 24760999. PMCID: PMC4159737.

Gonzalez EJ, Arms L, Vizzard MA. The role(s) of cytokines/chemokines in urinary bladder inflammation and dysfunction. *Biomed Res Int*, 2014:120525. PMID: 24738044. PMCID: PMC3971501.

INVITED BOOK CHAPTERS

Gonzalez EJ, Girard BM, Braas KM, May V, Vizzard MA. Neuroplasticity of PACAP expression and function in micturition reflex pathways. In D. Reglodi & A. Tamas (Eds.), *Pituitary Adenylate Cyclase Activating Polypeptide – PACAP (Part 5)*. Cham, Switzerland: Springer International Publishing AG, 2016.

CONFERENCE ABSTRACTS

Gonzalez EJ, Odom MR, Hannan JL, Grill WM. Chronic monitoring of voiding function in a novel model of detrusor underactivity. Miami, FL: Society of Urodynamics, Female Pelvic Medicine and Urogenital Reconstruction, 2019.

Gonzalez EJ, Grill WM. Neuromodulation evokes distinct sympathetic mechanisms following cyclophosphamide-induced cystitis. San Diego, CA: Society for Neuroscience, 2018.

Gonzalez EJ, Grill WM. Nerve stimulation increases voiding efficiency in a novel model of detrusor underactivity. Austin, TX: Society of Urodynamics, Female Pelvic Medicine & Urogenital Reconstruction, 2018.

Gonzalez EJ, Grill WM. Nerve stimulation increases voiding efficiency in a novel model of detrusor underactivity. Washington, DC: Society for Neuroscience, 2017.

Gonzalez EJ, Grill WM. Detrusor underactivity in an obese-prone rat model. Boston, MA: American Urological Association, 2017.

Gonzalez EJ, Vizzard MA. Mechanism(s) of transforming growth factor-beta (TGF- β) mediated bladder afferent nerve hyperexcitability. Chicago, IL: Society for Neuroscience, 2015.

Gonzalez EJ, Heppner TJ, Nelson MT, Vizzard MA. The contribution(s) of transforming growth factor-beta to bladder afferent nerve hyperexcitability with cyclophosphamide-induced cystitis. Washington, DC: Society for Neuroscience, 2014.

Gonzalez EJ, Vizzard MA. Functional role for transforming growth factor-beta (TGF- β) signaling following cyclophosphamide (CYP)-induced cystitis in female rats. San Diego, CA: Society for Neuroscience, 2013.

Gonzalez EJ, Girard BM, Malley S, Vizzard MA. Transforming growth factor beta 1, 2, and 3 (TGF- β 1, TGF- β 2, and TGF- β 3) and receptors in rat urinary bladder and plasticity with cyclophosphamide (CYP)-induced cystitis. New Orleans, LA: Society for Neuroscience, 2012.

Carstens K, **Gonzalez EJ**, Eckenstein FP, Miwa J, Nishi R. Morphology of the cholinergic system in the CNS of lynx1 and lynx2 null mice: An immunohistochemical study. Washington, DC: Society for Neuroscience, 2011.

Gotthard GH, **Gonzalez EJ**, Block J. Effects of cycloheximide on retrained odor discrimination memory in rats. Chicago, IL: Midwestern Psychological Association, 2010.

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Graduate College Newsletter, Student Profile

<http://goo.gl/dfhJN1>