

Curriculum vitae

Investigator: Luis Rene Garcia

Undergraduate Institution: University of Texas at Austin

Major: Microbiology

Degree & Year: BS with Special Honors, 1990

Graduate Institution: University of Texas at Austin

Major: Microbiology

Degree & Year: Ph.D., 1996

Postdoctoral Institution: California Institute of Technology

Area: Behavioral and Developmental Genetics

Appointments:

September 2008: Howard Hughes Medical Institute

September 2008: Associate professor Department of Biology, Texas A&M University

September 2002: Assistant professor Department of Biology, Texas A&M University

Support:

1. Name of funding agency: **Howard Hughes Medical Institute**
2. Title of grant: **Environmental and Genetic Regulation of Motivated Behavior**
3. Effective dates (starting and ending dates) and direct+ indirect amounts: **(2008-2013), \$2,250,000**

1. Name of funding agency: **NIH**
2. Title of grant: **Genetic Regulation of Mating Behavior in C. elegans males.**
3. Effective dates (starting and ending dates) and direct+ indirect amounts: **9/15/2003 to 5/30/2010, \$1,710,110**

1. Name of funding agency: **Searle Scholars Program**
2. Title of grant: **Identification of ERG K channel-regulated pathways used in C. elegans male mating behavior.**
3. . Effective dates (starting and ending dates) and direct+ indirect amounts: **7/1/2003 to 6/30/2006, \$240,000**

Publications

Liu Y, LeBeouf B, Guo X, Correa PA, Gualberto DG, Lints, R and **Garcia LR.** 2011. A cholinergic-regulated circuit coordinates the maintenance and bi-stable states of a sensory-motor behavior during C. elegans male copulation. PLoS Genetics In Press.

Leboeuf B, Guo X, **García LR** 2010 The effects of transient starvation persist through direct interactions between CaMKII and ether-a-go-go K⁺ channels in C.elegans males. Neuroscience. 2010 Dec 9. [Epub ahead of print]

Gruninger, T.R., Gualberto, D.G. and ***Garcia, L.R.** 2008. Sensory Perception of Food and Insulin-like Signals Influence Seizure Susceptibility. **PloS Genetics**. 4(7):e1000117.

∇LeBoeuf, B., ∇Gruninger, T.R., (∇Co-first Authors) and ***Garcia, L.R.** 2007. Food deprivation suppresses defective ERG K⁺ channel-induced muscle seizures through CaMKII and EAG K⁺ channels. **PloS Genetics**.3(9): e156.

Gruninger, T.R., LeBoeuf, B, Liu, Y, and ***Garcia, L.R.** 2007. Molecular Signaling Involved in Regulating Feeding and Other Motivated Behaviors. **Molecular Neurobiology**. 35: 1-20.

***Garcia, L.R.** LeBoeuf, B, and Koo, P, 2007. Diversity in Mating Behavior of Hermaphroditic and Male-Female *Caenorhabditis* Nematodes. **Genetics**. 175:1761-1771.

Liu Y, LeBoeuf, B, and ***Garcia, L.R.** 2007. Gαq-coupled Muscarinic Acetylcholine Receptors Enhance Nicotinic Acetylcholine Receptor Signaling in *C. elegans* Mating Behavior. **J. Neurosci**. 27: 1411-1421.

Reiner, DJ., Weinshenker, D., Tian, H., Thomas, J.H., Hishiwaki, K., Miwa, J., Gruninger, T., LeBoeuf, B., ***Garcia, L.R.** 2006. Behavioral Genetics of *Caenorhabditis elegans unc-103*-encoded ERG-like K⁺ Channel. **J. Neurogenetics**. 20:41-46.

Gruninger, T.R., Gualberto, D.G., LeBoeuf, B., and. ***Garcia, L. R.** 2006. Integration of Male Mating and Feeding Behaviors in *Caenorhabditis elegans*. **J. Neurosci**. 26:169-179.

Kemp, P., Garcia, L.R., and Molineux, I.J. 2005. Changes in bacteriophage T7 virion structure at the initiation of infection. **Virology**. 2:307-317.

Barr, M. and ***L.R. Garcia**. 2005. Male Mating behavior. WormBook, ed. The *C. elegans* Research Community, **WormBook**, doi/10.1895/wormbook.1.7.1, <http://www.wormbook.org>

∇Moghal, N., *∇**Garcia, L.R.**(∇Co-first Authors), Khan, L.A., Iwasaki, K., Sternberg, P.W. 2003 Modulation of EGF receptor-mediated vulval development by Gαq and excitable cells in *C. elegans*. **Development**. 130:4553-4566.

***Garcia, L.R.** and P.W. Sternberg. 2003 *C. elegans* UNC-103 ERG-like potassium channel regulates contractile behaviors of sex muscles in males prior to and during mating. **J. Neurosci**. 23:2696-270.

Garcia, L.R., Mehta, P., and P.W. Sternberg. 2001. Regulation of distinct muscle behaviors controls the *C. elegans* male's copulatory spicules during mating. **Cell** 107: 777-788

Garcia, L. R. and I. J. Molineux. 1999. Translocation and cleavage of bacteriophage T7 DNA by the type I restriction enzyme *EcoKI* *in vivo*. **PNAS**. 96:12430-12435.

Garcia, L. R. and I. J. Molineux. **1996**. Transcription-independent DNA translocation of bacteriophage T7 DNA into *Escherichia coli*. J. Bacteriol. 178:6921-6929.

Garcia, L. R. and I. J. Molineux. **1995**. Incomplete entry of bacteriophage T7 into F plasmid containing *Escherichia coli*. J. Bacteriol. 177:4077-4083.

Garcia, L. R. and I. J. Molineux. **1995**. Rate of translocation of bacteriophage T7 DNA across the membranes of *Escherichia coli*. J. Bacteriol 177:4066-4076.

Hole, N. J. K., N. Harindranath, G. O. Young-Cooper, R. Garcia, and R. G. Mage. **1991**. Identification of enhancer sequences 3' of the rabbit Ig Kappa l chain loci. J. Immunol. 146:4377-4384.