

## **Thomas Roseberry**

UC San Francisco  
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### **Education**

2000 - 2004                      Boston University, Boston, MA  
B.S. in Mechanical Engineering

2012 – 2017                      UC San Francisco, San Francisco, CA  
PhD in Neuroscience

### **Publications**

**Roseberry TK**, Lalive AL, Margolin BE, Kreitzer AC. Defensive action suppression by an amygdala to brainstem connection. In preparation.

**Roseberry TK**, Kreitzer AC. Neural Circuits for Behavioral Arrest. Philos Trans R Soc B. Review. 2017 Apr 19;372(1718).

**Roseberry TK\***, Lee AM\*, Lalive AL, Wilbrecht L, Bonchi A, Kreitzer AC. Cell-type-specific control of brainstem locomotor circuits by basal ganglia. Cell. 2016 Jan 28;164(3):526-37.

Wood WE, Osseward PJ 2nd, **Roseberry TK**, Perkel DJ. A Daily Oscillation in fundamental frequency and amplitude of harmonic syllables of zebra finch song. PLoS One. 2013 Dec 2;8(12):e82327.

Wood WE, **Roseberry TK**, Perkel DJ. HTR2 receptors in a songbird premotor cortical-like area modulate spectral characteristics of zebra finch song. J Neurosci. 2013 Feb 13;33(7):2908-15.

### **Abstracts**

**Roseberry TK**, Kreitzer AC (2017) An amygdala to brainstem connection gates defensive locomotion. OptoDBS Conference, Geneva, Switzerland.

**Roseberry TK**, Kreitzer AC (2017) An amygdala to brainstem connection gates defensive locomotion. Sculpted Light in the Brain, Berkeley, CA.

**Roseberry TK**, Lee AM, Kreitzer AC (2016) A Cell-type-specific brainstem pathway for basal ganglia control of locomotion. Basal Ganglia Gordon Research Conference, Ventura, CA.

**Roseberry TK**, Lee AM, Kreitzer AC (2016) A Cell-type-specific brainstem pathway for basal ganglia control of locomotion. COSYNE, Salt Lake City, UT.

Wood WE, **Roseberry TK**, Perkel DJ (2012). Decreased serotonin in a cortical-like premotor song area (RA) reduces average fundamental frequency of song syllables and also interferes with circadian rhythms of fundamental frequency. Society for Neuroscience Annual Meeting, New Orleans, LA.

### **Invited Talks**

- 2015 Invited student speaker.  
UC San Francisco Neuroscience Program Retreat. Asilomar, CA
- 2016 Invited speaker  
Gordon Research Conferences: Basal Ganglia. Ventura, CA
- 2016 Invited speaker  
Gladstone Institutes Awards of Excellence in Science and Leadership Celebration

## **Awards & Fellowships**

- 2014 Ford Fellowship Honorable Mention
- 2014 National Science Foundation Graduate Fellowship Honorable Mention
- 2014 - 2016 Herbert Boyer UCSF Graduate Program In Biological Sciences Fellowship
- 2015 - 2017 Ruth L Kirschstein National Research Service Award (NRSA: F31 NS092253)  
“The circuit basis for basal ganglia control of locomotion.”
- 2016 Gladstone Institutes Graduate Award of Excellence in Science
- 2016 UCSF Grad Slam Finalist

## **Research Experience**

- 2011 – 2013 Research Volunteer, University of Washington  
Advisor: Dr. David Perkel  
Area: The neural basis of birdsong.  
Techniques: Long-term song recording, behavioral analysis and manipulation using MATLAB and LABview.
- Fall 2012 Graduate Student Rotation, UC San Francisco  
Advisor: Dr. Kevin Bender  
Area: Electrophysiology of medial prefrontal principle cells.  
Techniques: Whole cell patch clamp and pharmacology.
- Spring 2013 Graduate Student Rotation, UC San Francisco  
Advisor: Dr. Allan Basbaum  
Area: Receptor expression in dorsal root ganglia.  
Techniques: In situ hybridization, confocal microscopy, automated cell counting.
- 2013 – present Graduate Student, UC San Francisco  
Advisor: Dr. Anatol Kreitzer  
Area: Basal ganglia control of locomotor circuits  
Techniques: *In vivo* electrophysiology in head-fixed behaving mice, optogenetics, viral tracing, transgenic mouse breeding strategies.

## **Teaching Experience**

Fall 2011 Teaching Assistant, Biology 355. University of Washington.  
Supervisor: Dr. Linda Martin-Morris

Fall 2013 & Fall 2015 Lab Instructor, Physics 100. University of San Francisco.  
Supervisor: Dr. Brandon Brown

Spring 2014 Lab Instructor, Physics 101. University of San Francisco.  
Supervisor: Dr. Thomas Bottger

Fall 2014 Teaching Assistant, Physics 201. University of San Francisco.  
Supervisor: Dr Seth Foreman

Spring 2016 Lab Instructor, Physics 135. University of San Francisco.  
Supervisor: Dr Seth Foreman  
Of note: Guest lecturer

Fall 2016 Lab Instructor, Physics 100. University of San Francisco  
Supervisor: Dr Thomas Bottger

Spring 2017 Lab Instructor, Physics 101. University of San Francisco  
Supervisor: Dr Brandon Brown

### **Other Work Experience**

2005 – 2009 Project Engineer, Electroimpact Inc. Seattle, WA.  
Area: Aircraft assembly automation.

2006 – 2007 Mechanical Consultant, Rushing Company. Seattle, WA.  
Area: LEED certification and building energy usage modeling.

2009 – 2012 Head Triathlon Coach, Cycle University. Seattle, WA.  
Area: Team management and athletic program creation.