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Date of Preparation: August 8<sup>th</sup>, 2016

### Work Experience

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07/2016-	<b>University of California, San Diego, Department of Biology</b> <i>Assistant Professor</i>	San Diego, CA
04/2001 – 08/2005	<b>University of California, San Diego, Department of Biology</b> Laboratory of Dr. Nicholas Spitzer <i>Staff Research Associate</i>	San Diego, CA
06/1999 – 05/2000	<b>Whitman College, Department of Biology</b> Laboratory of Dr. Paul Yancey <i>Undergraduate Researcher</i>	Walla Walla, WA
09/1998 – 12/1998	<b>University of Pennsylvania</b> Laboratory of Dr. Joel Rosenbloom <i>Research Intern</i>	Philadelphia, PA

### Postdoctoral Training

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10/2010 – 06/2016	<b>Columbia University, Department of Neuroscience</b> Laboratory of Dr. Richard Axel <i>Associate Research Scientist</i> <b>Howard Hughes Medical Institute at Columbia University</b> <i>Research Associate</i>	New York, NY
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### Education

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09/2005 – 05/2010	<b>University of California, San Diego, Department of Biology</b> Ph.D., May 2010 Thesis title: <i>Propagation and Modulation of Activity in Early Olfactory Processing and its Relevance to Odor-Driven Behavior.</i> Advisor: Dr. Jing Wang	San Diego, CA
09/1996 – 05/2000	<b>Whitman College</b> B.A., May 2000 Biology and Chemistry, combined major	Walla Walla, WA

### Teaching Experience

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03/2009 – 06/2009	<b>University of California, San Diego, Systems Neurobiology</b> <i>Teaching Assistant</i>	San Diego, CA
09/2007 – 12/2007	<b>University of California, San Diego, Cellular Neurobiology</b> <i>Teaching Assistant</i>	San Diego, CA
03/2007 – 06/2007	<b>University of California, San Diego, Neurophysiology Lab</b> <i>Teaching Assistant</i>	San Diego, CA
09/2005 – 06/2008	<b>Elementary Institute of Science, Neuroscience for Kids</b> <i>Instructor</i>	San Diego, CA
01/2000 – 05/2000	<b>Whitman College, Organic Chemistry Lab</b> <i>Teaching Assistant</i>	Walla Walla, WA
01/2000 – 05/2000	<b>Whitman College, Biochemistry Lab</b> <i>Teaching Assistant</i>	Walla Walla, WA

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## Awards and Honors

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- 2015 NIDCD, K99/R00 Pathway to Independence Award
- 2011 Elkins Memorial Thesis Award/Lecture, Neurobiology of Drosophila at CSHL
- 2009 NIDCD, NRSA pre-doctoral fellowship award
- 2007 National Science Foundation Graduate Research Fellowship, honorable mention
- 2005 Exemplary Employee of the Year Award, UCSD Division of Biological Sciences
- 2003 Outstanding Employee of the Year nomination, UCSD Division of Biological Sciences

## Publications

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Original, Peer Reviewed Articles:

- 1) Ko KI, Root CM, Lindsay SA, Zaninovich OA, Shepherd AK, Wasserman SA, Kim SM, Wang JW. (2015) Starvation promotes concerted modulation of appetitive olfactory behavior via parallel neuromodulatory circuits. ***Elife*** 10.7554.
- 2) Root CM, Denny CA, Hen R, Axel R. (2014) The participation of cortical amygdala in innate, odor-driven behavior. ***Nature*** 515:269-273.
- 3) Root CM, Ko KI, Jafari A, Wang JW. (2011) Presynaptic facilitation by neuropeptide signaling mediates odor-driven food search. ***Cell*** 145:133-44.
- 4) Ignell R, \* Root CM, \* Birse RT, Wang JW, Nassel DR, Winther AME. (2009) Presynaptic peptidergic modulation of olfactory receptor neurons in *Drosophila*. ***PNAS*** 106:13070- 13075. *\*these authors contributed equally*
- 5) Dacks AM, Green DS, Root CM, Nighorn AJ, Wang JW. (2009) Serotonin modulates olfactory processing in the antennal lobe of *Drosophila*. ***J. Neurogenetics*** 23:366-77.
- 6) Root CM, Masuyama K, Green DS, Enell LE, Nassel DR, Lee C-H, Wang JW. (2008) A presynaptic gain control mechanism fine-tunes olfactory behavior. ***Neuron*** 59:311-321.
- 7) Root CM, Velazquez-Ulloa NA, Monsalve GC, Minakova E, Spitzer NC. (2008) Embryonically expressed GABA and glutamate drive activity regulating neurotransmitter specification. ***J. Neurosci*** 28:4777-4784.
- 8) Root CM, \* Semmelhack JL, \* Wong AM, Flores J, Wang JW. (2007) Propagation of olfactory information in *drosophila*. ***PNAS*** 14: 11826-11831. *\*these authors contributed equally*
- 9) Borodinsky LN, Root CM, Cronin J, Sann SB, Gu X, Spitzer NC. (2004) Activity-dependent homeostatic specification of transmitter expression in embryonic neurons. ***Nature*** 429: 523- 530.

Review Articles and Book Chapters:

- 1) Zaninovich OA, Kim SM, Root CR, Green D, Ko KI, Wang JW. (2013) A Single-Fly Assay for Foraging Behavior in *Drosophila*. ***J. Visualized Experiments***.
- 2) Root CM, Wong AM, Flores J, Wang JW. (2011) Imaging olfactory activity in *Drosophila* CNS with a calcium-sensitive green fluorescent protein. In ***Imaging in Neuroscience: A laboratory manual***. Helmchen F, Yuste R and Konnerth A, Eds, Cold Spring Harbor Laboratory Press.
- 3) Spitzer NC, Borodinsky LN, Root CM. (2011) Imaging Calcium Transients in Developing *Xenopus* Spinal Neurons. In: ***Imaging in Developmental Biology: A Laboratory Manual***. Sharpe, Wong and Yuste, Eds, Cold Spring Harbor Laboratory Press.
- 4) Spitzer NC, Borodinsky LN, Root CM. (2005) Homeostatic activity-dependent paradigm for neurotransmitter specification. ***Cell Calcium*** 37: 417-423.
- 5) Spitzer NC, Root CM, Borodinsky LN. (2004) Orchestrating neuronal differentiation: Patterns of calcium spikes specify transmitter choice. ***Trends in Neuroscience*** 27: 415-421.
- 6) Spitzer NC, Borodinsky LN, Root CM. (2004) A practical guide to: Imaging calcium transients in developing *Xenopus* spinal neurons. In ***Imaging in Neuroscience and Development: A laboratory manual***. Yuste R and Konnerth A, Eds, Cold Spring Harbor Laboratory Press.