

Rebecca M Shansky, PhD

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CAREER HISTORY

Sept 2011 – present

Assistant Professor

Department of Psychology
Northeastern University, Boston MA

Feb 2011 – Aug 2011

Research Scientist

Division of Integrative Neuroscience
Columbia University, New York NY
Laboratory of Alex Dranovsky, MD, PhD & David Leonardo, MD, PhD

Nov 2004 – Dec 2010

Post-doctoral Fellow

Department of Neuroscience
Mount Sinai School of Medicine, New York NY
Laboratory of John Morrison, PhD
Co-mentors: Bruce McEwen, PhD and Joseph LeDoux, PhD

Sept 1999 – Sept 2004

PhD, Neurobiology

Department of Neurobiology
Yale University, New Haven CT
Laboratory of Amy Arnsten, PhD

Thesis title: *Sex differences in stress-induced prefrontal cortex dysfunction: hormone and catecholamine interactions*

Sept 1994 – May 1998

BA, Psychology

Columbia University, New York NY

FUNDING

Current

2017-2018

NIMH R56 MH11493

Title: Endocannabinoid modulation of stress coping in prefrontal-brainstem circuits

Total direct costs: \$256,000

2016-2018

Brain Research Foundation Fay/Frank Seed grant

Title: Chemogenetic dissection of sex-specific fear circuits

Total direct costs: \$80,000

Past

2012-2014

NIMH R21 MH098006-01

Title: Sex-specific neuroanatomical markers of vulnerability in an animal model of PTSD

Total direct costs: \$275,000

2006-2009

NIH/NIMH NRSA F32 MH075506-03

Title: Sex differences in stress-induced dendritic remodeling

PEER-REVIEWED PUBLICATIONS (reverse chronological)

J Colom-Lapetina, SL Begley, ME Johnson, KJ Bean, WN Kuwamoto, and **RM Shansky** (2017) "Strain-dependent sex differences in a long-term forced swim paradigm" *Behavioral Neuroscience* Aug 14 (ePub ahead of print)

RM Shansky and CS Woolley (2016) "Considering sex as a biological variable will be valuable for neuroscience research" *Journal of Neuroscience* November 23;36(47): 11817-11822

MR Farrell, F Holland, **RM Shansky**, and HC Brenhouse (2016) "Sex-specific effects of early life stress on social interaction and prefrontal cortex dendritic morphology in young rats" *Behavioral Brain Research* Sep 1; 310:119-25

TM Gruene, K Flick, S Rendall, JH Cho, JM Gray, and **RM Shansky** (2016) "Activity-dependent structural plasticity after aversive experiences in amygdala and auditory cortex pyramidal neurons" *Neuroscience* July 22;328:157-64 *Cover image

TM Gruene, K Flick, A Stefano, SD Shea, and **RM Shansky** (2015) "Sexually divergent expression of active and passive conditioned fear responses in rats." *eLife* Nov 14:4

*selected for "Insight" commentary in *eLife*. Additional commentary in *Trends in Neurosciences* by Jones & Monfils Feb 2016. Featured in *Scientific American Mind*, Nov 2016

TM Gruene, E Roberts, V Thomas, A Ronzio, and **RM Shansky** (2015) "Sex-specific neuroanatomical correlates of fear expression in prefrontal-amygdala circuits" *Biological Psychiatry* Aug 1;78(3): 186-93
*Cover image and commentary in this issue

MR Farrell, TM Gruene, and **RM Shansky** (2015) "The influence of stress and gonadal hormones on neuronal structure and function." *Hormones and Behavior* Nov;75:118-24

RM Shansky (2015) "Sex differences in PTSD resilience and susceptibility: challenges for animal models of fear learning" *Neurobiology of Stress* January (1): 60-65

TM Gruene, J Lipps, CD Rey, A Bouck, and **RM Shansky** (2014) "Heat exposure in female rats elicits abnormal fear expression and cellular changes in prefrontal cortex and hippocampus" *Neurobiology of Learning and Memory* Oct: 38-42

CD Rey, J Lipps, and **RM Shansky** (2014) "Dopamine D1-receptor activation rescues extinction impairments in low-estrogen female rats and induces cortical layer-specific activation changes in prefrontal-amygdala circuits." *Neuropsychopharmacology* Apr;39(5):1282-9

RM Shansky, J Lipps. (2013) "Stress-induced cognitive dysfunction: hormone-neurotransmitter interactions in the prefrontal cortex." *Frontiers in Human Neuroscience* 7:123.

RM Shansky, C Hamo, W Lou, PR Hof, BS McEwen and JH Morrison. (2010) "Estrogen promotes stress sensitivity in a prefrontal cortex-amygdala pathway" *Cerebral Cortex* Nov 20(11) 2560-7

RM Shansky (2009) "Estrogen, stress and the brain: progress toward unraveling gender discrepancies in major depressive disorder." *Expert Review in Neurotherapeutics* Jul 9(7): 967-73 Review.

RM Shansky and JH Morrison (2009) "Stress-induced dendritic remodeling in the medial prefrontal cortex: effects of circuit, hormones and rest". *Brain Research* Oct 13;1293:108-13. Review.

RM Shansky, C Hamo, PR Hof, BS McEwen and JH Morrison (2009) "Stress-induced dendritic remodeling in the prefrontal cortex is circuit-specific" *Cerebral Cortex* Oct;19(10):2479-84

RM Shansky, G Bender and AF Arnsten (2009) "Estrogen prevents norepinephrine alpha-2a receptor reversal of stress-induced working memory impairment". *Stress* 12(5):457-63

RM Shansky and AF Arnsten (2007) "Estrogen enhances stress-induced prefrontal cortex dysfunction: relevance to Major Depressive Disorder in women". *Dialogues in Clinical Neuroscience* 8(4): 4778-81 Review.

RM Shansky, K Rubinow, A Brennan, AF Arnsten (2006) "The effects of sex and hormonal status on restraint-stress-induced working memory impairment." *Behavioral Brain Function*. 2006 Mar 7;2:8.

AF Arnsten and **RM Shansky** (2004) "Adolescence: vulnerable period for stress-induced prefrontal cortical function? Introduction to part IV.". *Annals of the NY Academy of Science*. 1021: 143-7. Review.

RM Shansky, C Glavis-Bloom, D Lerman, P McRae, C Benson, K Miller, L Cosand, TL Horvath and AF Arnsten. (2004) "Estrogen mediates sex differences in stress-induced prefrontal cortex dysfunction" *Molecular Psychiatry* 9(5):531-8

BOOKS

RM Shansky, ed. *Sex Differences in the Central Nervous System*. San Diego: Elsevier, 2016

AWARDS AND HONORS

- 2014 Travel Award
American College for Neuropsychopharmacology (ACNP)
- 2008 New Investigator Award
Organization for the Study of Sex Differences Annual Meeting,
New Orleans LA
- 2007 Young Investigator Award
Workshop on Steroid Hormones and Brain Function, Breckenridge CO
- 2005 Florence P Haseltine Award for the Outstanding Poster Presentation by a New Investigator in Sex-Based Biology
Conference on Sex and Gene Expression, Winston-Salem NC
- 1998-2003 Trainee travel Award
Wisconsin Symposium on Emotion, Madison WI

INVITED TALKS

- 2017 Eastern Psychological Association Annual meeting, *Boston MA*
University of Cincinnati, *Cincinnati OH*
Dartmouth College, *Hanover NH*
Organization for the study of sex differences (OSSD) annual meeting, *Montréal QC*
University College at Cork, *Cork, Ireland*
Gordon Research Conference on Amygdala in Health and Disease, *Easton MA*
Mind and Life Institute Dialogue with the Dalai Lama, *Gaborone Botswana*
University of Pittsburgh, *Pittsburgh PH*
Perdue University, *West Lafayette, IN*
University of Minnesota, *Minneapolis, MN* *scheduled for October 27
- 2016 ACNP annual meeting, *Hollywood FL*
University of Connecticut, *Storrs CT*
University of Massachusetts, *Amherst MA*
International Society for Psychoneuroendocrinology (ISPNE), *Miami FL*
Kavli Institute, *Santa Barbara CA*

- Organization for the study of sex differences (OSSD) annual meeting, *Philadelphia PA*
 Yale University, *New Haven CT*
 Eastern Psychological Association Annual meeting, *New York NY*
 Boston College, *Chestnut Hill MA*
 Brown University, *Providence RI*
 Winter Conference on Brain Research, *Breckenridge CO*
- 2015 ACNP annual meeting, *Hollywood FL*
 Gordon Research Conference on Amygdala in Health and Disease, *Easton MA*
 University of North Texas Health Science Center, *Fort Worth TX*
 Emory University, *Atlanta GA*
 Cold Spring Harbor Laboratory, *Cold Spring Harbor NY*
- 2014 Walter Reed Army Institute of Research, *Silver Spring MD*
 University of Vermont, *Burlington VT*
 University of New South Wales, *Sydney NSW*
 Society for Behavioral Neuroendocrinology annual meeting, *Sydney NSW*
 University of British Columbia, *Vancouver BC*
 Washington State University, *Pullman WA*
 University of Calgary, *Calgary AB*
 Eastern Psychological Association annual meeting, *Boston MA*
- 2013 Society for Neuroscience annual meeting, *San Diego CA*
 Harvard Medical School/MGH, *Charlestown MA*
 University of Michigan, *Ann Arbor MI*
- 2012 McLean Hospital-Harvard Medical School, *Belmont MA*
 Stress Neurobiology Workshop, *Philadelphia PA*
- 2011 University of Texas at Austin, *Austin TX*
 University of Texas Health Sciences Center, *San Antonio TX*
- 2010 Division of Integrative Neuroscience, *Columbia University, New York NY*
 ASPET annual meeting, *Anaheim CA*
- 2007 Workshop on Steroid Hormones and Brain Function, *Breckenridge CO*
- 2004 Conference on Sex and Gene Expression (SAGE), *Winston-Salem NC*
- 2004 **Graduate Student Research Symposium**, *Yale University, New Haven CT*

PROFESSIONAL ASSOCIATIONS

Society for Neuroscience
 Organization for the Study of Sex Differences (elected to council 2014)
 Society for Behavioral Neuroendocrinology

PROFESSIONAL SERVICE/ACTIVITIES

- 2017 Membership chair, Organization for the Study of Sex Differences
- 2017 ad-hoc reviewer NIH Special Emphasis Panel, Emerging Technologies in Neuroscience (ETTN)
- 2015-2017 Society for Neuroscience Public Education and Communication Committee
- 2016 ad-hoc reviewer NIH Special Emphasis Panel, Emerging Technologies in Neuroscience (ETTN)
- 2015-2016 Co-chair, Networking Professional Development Workshop

Society for Neuroscience Annual Meeting, Chicago IL & San Diego, CA

2015 ad-hoc reviewer NIH study section, Biobehavioral Regulation, Learning, & Ethology (BRLE)

2014 Panel speaker, Networking Professional Development Workshop
Society for Neuroscience Annual Meeting, Washington DC

2012

–present Editorial Board Member, *Frontiers in Behavioral Neuroscience*

2007-
present Ad-hoc reviewer : *Nature, Biological Psychiatry, Molecular Psychiatry, Translational Psychiatry, Neuropsychopharmacology* eLife*, Neurobiology of Aging, Journal of Neuroscience*, Brain Research*, Neuroscience*, European Psychiatry, Behavioral Brain Research, Neuroscience and Biobehavioral Reviews, International Journal of Neuropsychopharmacology*, Human Brain Mapping, Frontiers in Behavioral Neuroscience*, Developmental Neuroscience, Learning and Memory, Neurobiology of Learning and Memory, Hormones and Behavior*, Physiology and Behavior, Behavioral Brain Research**

* - 3 or more reviews

2001 Panel speaker at press conference on gender, stress, and memory at the Society for Neuroscience Annual Meeting – San Diego, CA