

Anita E. Autry, Ph.D.

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SCHOLARLY PROFILE

Neuroscience researcher using state of the art molecular tools to understand the functional neuroanatomy of circuits controlling behavior.

RESEARCH EXPERIENCE

2011-present Postdoctoral Fellow, **Harvard University**, Department of Molecular and Cellular Biology
Advisor: Catherine Dulac, Ph.D.

EDUCATION

2011 Ph.D. **University of Texas Southwestern Medical Center** at Dallas
Neuroscience Graduate Program
Advisor: Lisa Monteggia, Ph.D.

2005 B.A., B.S. **University of South Carolina**, Honors College Baccalaureus Degree

CURRENT FUNDING

2016	K99/R00 Grantee K99 HD 085188	Pathway to Independence Award Sponsored by NICHD to research parental behavior
2015	NARSAD Young Investigator	Brain and Behavior Research Foundation Received two years of funding to support research projects
2014	Fellow F32 HD 078040	Ruth L. Kirschstein National Research Service Award Sponsored by NICHD to research parental behavior

PUBLICATIONS

Selected Publications

1. Wu, Z., **Autry, A.E.**, Bergan, J.F., Watabe-Uchida, M., Dulac, C.G. (2014). Galanin neurons in the medial preoptic area govern parental behavior. *Nature*, 509 (7500) 325-330.
2. **Autry, A.E.**, Adachi, M., Nosyreva, E., Na, E., Los, M.F., Cheng, P., Kavalali, E.T., Monteggia, L.M. (2011). NMDA Receptor Blockade at Rest Desuppresses Protein Translation and Triggers Rapid Behavioural Antidepressant Responses. *Nature*, 475(7354) 91-5.

Additional Publications

3. Adachi, M.*, **Autry, A.E.***, Maghoub, M., Suzuki, K., Monteggia, L.M. (2016). TrkB Signaling in Dorsal Raphe Nucleus is Essential for Antidepressant Efficacy and Normal Aggression Behavior. *Neuropsychopharmacology*, In press.
4. **Autry, A.E.** (2016). Neurobiology of Chronic Social Defeat Stress: Role of Brain-Derived Neurotrophic Factor Signaling in the Nucleus Accumbens. *Biological Psychiatry*, In Press.
5. Renier, N., Adams, E., Kirst, C., Wu, Z., Azevedo, R., Kohl, J., **Autry, A.E.**, Kadiri, L., Venkataraju, K.U., Zhou, Y., Wang, V.X., Tang, C.Y., Olsen, O., Dulac, C., Osten, P., Tessier-Lavigne, M. (2016). Mapping of brain activity by automated volume analysis of immediate early genes. *Cell*, 165 (7) 1-14.
6. Morris, M., Na, E., **Autry, A.E.**, Monteggia, L.M. (2016). Impact of DNMT1 and DNMT3a forebrain knockout on depressive- and anxiety like behavior in mice. *Neurobiology of Learning and Memory*, In press.
7. **Autry, A.E.**, Adachi, M., Monteggia, L.M. (2015). Dynamic methylation driven by neuronal activity in hippocampal neurons impacts complex behavior. *Frontiers in Biology*, 10 (5) 439-447.
8. Nosyreva, E., **Autry, A.E.**, Kavalali, E.T., Monteggia, L.M. (2014). Age dependence of the rapid antidepressant and synaptic effects of acute NMDA receptor blockade. *Frontiers in Molecular Neuroscience*, 7 (94) 1-6.
9. Nosyreva, E., Szabla, K., **Autry, A.E.**, Ryazanov, A.G., Monteggia, L.M., Kavalali, E.T. (2013). Acute suppression of spontaneous neurotransmission drives synaptic potentiation. *Journal of Neuroscience*, 33 (16) 6990-7002.
10. **Autry, A. E.**, Monteggia, L.M. (2012). Brain-Derived Neurotrophic Factor and Neuropsychiatric Illness. *Pharmacological Reviews*, 64(2) 238-58.
11. Benekareddy, M., Nair, A.R., Dias, B.G., Suri, D., **Autry, A.E.**, Monteggia, L.M., Vaidya, V.A. (2012). Induction of the plasticity-associated immediate early gene Arc by stress and hallucinogens: role of brain-derived neurotrophic factor. *International Journal of Neuropsychopharmacology*, (epub March 12) 1-11.
12. Na, E., Nelson, E.D., Adachi, M., **Autry, A.E.**, Maghoub, M., Kavalali, E.T., Monteggia, L.M. (2012). MeCP2 overexpression can recapitulate behavioral phenotypes associated with MeCP2 Duplication Syndrome. *Journal of Neuroscience*, 32(9) 3109-3117.
13. **Autry, A. E.**, Monteggia, L.M. (2011). Role of Brain-derived Neurotrophic Factor in Depression-related Behaviour—Could it Explain the Higher Incidence in Females? *European Psychiatry Review*, 4(2) 102-104.
14. **Autry, A. E.**, Monteggia, L.M. (2009). Epigenetics and Suicide. *Biological Psychiatry*, 66(9) 812-3.
15. **Autry, A.E.**, Adachi, M., Cheng, P., Monteggia, L.M. (2009) Gender-specific impact of brain-derived neurotrophic factor signaling on stress-induced depression-like behavior. *Biological Psychiatry*, 66(1) 84-90.
16. Adachi, M., **Autry A.E.**, Covington, H.E., Monteggia, L.M. (2009). MeCP2-mediated transcription repression in the basolateral amygdala may underlie heightened anxiety in a mouse model of Rett Syndrome. *Journal of Neuroscience*, 29(13) 4218-27.
17. Adachi, M., Barrot, M., **Autry, A.E.**, Theobald, D., Monteggia, L.M. (2008). Selective loss of brain-derived neurotrophic factor in the dentate gyrus attenuates antidepressant efficacy. *Biological Psychiatry*, 63(7) 642-9.
18. **Autry, A. E.**, Grillo, C.A., Piroli, G. G., Rothstein, J.D., McEwen, B.S., Reagan, L.P. (2006). Glucocorticoid regulation of glutamate transporter isoform expression in the rat hippocampus. *Neuroendocrinology*, 83(5-6) 371-9.

TEACHING EXPERIENCE

2016	Guest Lecturer - Dr. Dulac's Neurobiology of Behavior course
2017	Teaching Assistant - Dr. Dulac's Neurobiology of Behavior course

HONORS AND AWARDS

2015	Fellow	Discovery Museums Science Communication Program
2011	Dean's Award	University of Texas Southwestern Medical Center at Dallas
2010-2011	Scholar Award	Philanthropic Educational Organization
2010	Top Poster	Graduate Student Organization
2010	Zeiss Award	Neuroscience Program Retreat
2008-2010	Trainee	NIMH Neurobiology of Mental Illness Training Grant
2007-2008	Trainee	NIDA Neurobiology of Drug Addiction Training Grant
2005	Scholar	National Guard Association of South Carolina
2005	Inductee	Phi Beta Kappa
2005	Research Fellow	University of South Caroline School of Medicine
2003-2004	Research Fellow	South Carolina Honors College Research Program
2001-2005	Carolina Scholar	South Carolina Honors College Scholarship
2001-2005	Scholar	National Merit Scholarship
2001-2005	Scholar	Palmetto Fellowship Program

PROFESSIONAL SERVICE

2016	Reviewer for <i>Journal of Neuroscience</i>
2016	Reviewer for <i>Behavioural Brain Research</i>
2015	Reviewer for <i>Neuroscience</i>
2014	Reviewer for <i>Journal of Affective Disorders</i>
2013	Reviewer for <i>Neuropsychopharmacology</i>
2013	Reviewer for <i>Psychological Medicine</i>

PROFESSIONAL MEMBERSHIPS

Society for Neuroscience
Society of Biological Psychiatry

ABSTRACTS AND PRESENTATIONS

Renier, N., Adams, E., Kirst, C., Wu, Z., Azevedo, R., Kohl, J., **Autry, A.E.**, Kadiri, L., Venkataraju, K.U., Zhou, Y., Wang, V.X., Tang, C.Y., Olsen, O., Dulac, C., Osten, P., Tessier-Lavigne, M. (2016). Mapping of brain activity by automated volume analysis of immediate early genes. Cold Spring Harbor Neural Circuits Meeting. 76.

Autry, A.E., Adachi, M., Nosyreva, E., Kavalali, E.T., Monteggia, L.M. (2011). NMDA receptor blockade and rapid behavioral antidepressant responses. Society for Neuroscience. 793.08.

Na, E., Nelson, E.D., Akhtar, M.W., Adachi, M., **Autry, A.E.**, Jaenisch, R., Kavalali, E.T., Monteggia, L.M. (2011). MeCP2 overexpression can recapitulate behavioral phenotypes associated with MeCP2 Duplication Syndrome. Society for Neuroscience. 59.01.

Autry, A. E., Adachi, M., Monteggia, L.M. (2010). Exploring molecular mechanisms of novel antidepressant ketamine. Society for Neuroscience. 667.4.

Adachi, M., Maghoub, M., **Autry, A. E.**, Monteggia, L. M. (2010). Loss of histone deacetylases 1 and 2 in forebrain is deleterious and leads to abnormal behavior. Society for Neuroscience. 148.13.

Autry, A. E., Adachi, M., Monteggia, L.M. (2008). BDNF modulation of stress-induced depression-related behavior. Society for Neuroscience. 867.4.

Adachi, M., Covington, H. E., **Autry, A. E.**, Monteggia, L.M. (2008). Localized deletion of MeCP2 in basolateral amygdala is sufficient to recapitulate anxiety and cue-dependent fear conditioning deficits. Society for Neuroscience. 447.9.

Autry, A. E., Grillo, C., Piroli, G., Rothstein, J., McEwen, B.S., Reagan, L. P. (2005). Glucocorticoid regulation of GLT-1 isoform expression in rat hippocampus. Society for Neuroscience. 405.5.

Autry, A. E., Grillo, C., Piroli, G., Rothstein, J., McEwen, B.S., Reagan, L. P. (2004). Glucocorticoid regulation of GLT-1 isoform expression in rat hippocampus. Society for Neuroscience Faculty for Undergraduate Neuroscience Satellite Meeting.

Jones, L.S., Wilkinson, M.B., **Autry, A. E.**, Helmick, L.R., Roudsari, S. M. (2003). *Impulse*: An online international journal for neuroscience reports written, edited, and published by undergraduates. Society for Neuroscience. 25.3.