

# BRIAN J WILTGEN, Ph.D.

## Curriculum Vitae

---

Center for Neuroscience  
1544 Newton Court  
University of California, Davis  
Davis, CA

Phone: (434) 466-1727  
Email: [bjwiltgen@ucdavis.edu](mailto:bjwiltgen@ucdavis.edu)  
Website: [wiltgenlab.com](http://wiltgenlab.com)

---

### Research interests

#### **Integration of systems, cellular and molecular neuroscience tools to understand:**

- Mechanisms of learning, memory formation and retrieval in the hippocampus
  - The contribution of catecholamines to fear learning, memory retrieval and anxiety
  - The role of the hippocampus and amygdala in associative drug tolerance
- 

### Education

Ph.D., University of California, Los Angeles, Psychology	2003
M.A., University of California, Los Angeles, Psychology	1999
B.S., University of Iowa, Psychology	1997

---

### Academic appointments

Associate Professor of Psychology, University of California, Davis	2015 –
Assistant Professor of Psychology, University of California, Davis	2012 – 2014
Assistant Professor of Psychology, University of Virginia	2008 – 2012

---

### Employment and professional affiliations

Faculty Fellow, Center for the Neurobiology of Learning & Memory University of California, Irvine	2014 –
Pavlovian Society Executive Committee	2015-2020
Postdoctoral fellow (Alcino Silva), UCLA	2004-2008
Postdoctoral researcher (Michael Fanselow), UCLA	2003-2004
Graduate student researcher (Michael Fanselow), UCLA	1997-2003
Undergraduate researcher (Isidore Gormezano), University of Iowa	1995-1997

---

### Honors and Awards

Kavli Fellow	2017 –
McKnight Foundation Memory & Cognitive Disorders Award	2012

Whitehall Foundation Award	2011
Alzheimer's Association New Investigator Award	2011
Mead Endowment Honored Faculty	2010
NIH National Research Service Award	2003
UCLA Research Mentorship Fellowship	2000
UCLA University Fellowship Award	1997

---

## Grants

### Current

NINDS R21-S122356 (\$275,000) 2021 – 2022  
 Distinct Mechanisms of Memory Storage and Retrieval in Hippocampal Engram Cells  
 Role: PI

UC Davis Academic Senate Grant (\$25,000) 2021 - 2023  
 Associative mechanisms of opiate tolerance  
 Role: PI

NIMH R21-MH126496 (\$275,000) 2022 – 2023  
 Influence of the locus coeruleus on fear learning and threat processing in the ventral hippocampus  
 Role: PI

NIDA R21-DA055440 (\$275,000) 2022 – 2023  
 The Contribution of the Hippocampus to Learned Opiate Tolerance  
 Role: PI

NINDS R56-NS129217 (\$350,000) 2022 – 2023  
 The Role of Novelty and Surprise in Aversive Learning  
 Role: PI  
*\*bridge grant for the first year of the pending RO1 below*

NIMH RO1-MH128744 (\$2,000,000) 2022 – 2027  
 Multi-level dissection of cerebello-limbic connectivity  
 Role: Co-I

### Pending

NINDS R01-NS129217 (\$2,000,000) 2023 - 2027  
 The Role of Novelty and Surprise in Aversive Learning  
 Role: PI  
*Impact score: 18<sup>th</sup> percentile*

### Previous

NINDS RO1 NS088053 (\$1,666,740) 2015 - 2021  
 Neurobiological Mechanisms of Systems Consolidation

UC Davis Memory & Plasticity Seed Grant (\$50,000) Intrinsic excitability as a substrate for memory consolidation	2018 - 2019
UC Davis Memory & Plasticity Seed Grant (\$50,000) Multiplex imaging of neuromodulatory signaling in the hippocampus	2018 - 2019
NINDS 1R21 NS101694 (\$275,000) Tools for dissecting proximal and distal CA1 contributions to learning	2017 - 2019
UC Davis Center for Neuroscience Innovation Pilot Grant (\$15,000) A new model of long-term memory formation in the hippocampus	2019 - 2020
McKnight Foundation (\$300,000), Memory and Cognitive Disorders Award Reactivation of Neocortical Memory Networks During Consolidation	2012 - 2015
Whitehall Foundation (\$225,000), Research Grant The Contribution of Calcium-permeable AMPA Receptors to Synaptic Plasticity	2011 - 2014
Alzheimer's Association (\$100,000), New Investigator Grant The Role of Synaptic Plasticity in the Development of Alzheimer's Disease	2011 - 2013
US Army Small Business Technology Transfer Program (\$45,000) A Rugged Automated Training System for Landmine Detection-Phase I	2011 - 2012
NIDA RO3 (\$77,000) Motivational Control of Goal-directed Actions and Habits	2010 - 2012
Jeffress Memorial Trust Research Grant (\$30,000) In vivo Experience Modifies Cellular Plasticity Mechanisms in the Hippocampus	2010 - 2011
NIA F32 AG023403 (\$132,472) Memory Following CaMKII Loss in Hippocampal Subregions	2003 - 2006

### **Mentored Grants**

Kyle Puhger, NIMH T32 Training Grant	2018-2019
Yusuke Ota, NSF Fellowship	2017-2020
Jake Wilmot, NIMH T32 Training Grant	2017-2018
Anahita Hamidi, NSF Fellowship	2012-2015
Kaycie Tayler, NSF Fellowship	2009-2012

### **Teaching Experience**

<b>University of California, Davis</b> Undergraduate: <i>Neurobiology of Learning and Memory, Animal Cognition</i> Graduate: <i>Hippocampal Contributions to Fear and Anxiety, Current Topics in Memory, Subregion Specialization in the Hippocampus</i>	2012 -
<b>University of Virginia</b>	2009 - 2012

Undergraduate: *Neurobiology of Learning and Memory, Biological Models of Cognition*  
 Graduate: *Neurobiology of Learning and Memory, Mechanisms of Memory*

**Cold Spring Harbor** 2001 – 2002  
*Mouse Behavioral Analysis* (w/ Drs. Fanselow, Mayford and Anagnostaras)

**University of California, Los Angeles** 2007  
 Undergraduate: *Animal Learning and Behavior, Research Methods, Learning Laboratory*

---

**Invited Talks**

The influence of novelty and surprise on aversive learning 2022  
 Meeting of the International Behavioral Neuroscience Society (IBNS)  
 Caledonian University  
 Glasgow, Scotland

Widespread changes in hippocampal activity are required for amnesia 2021  
 Meeting of the European Brain and Behavior Society (EBBS)  
 Swiss Federal Institute of Technology  
 Lausanne, Switzerland

Manipulating memory traces in the hippocampus 2021  
 University of Arkansas  
 Fayetteville, Arkansas

Manipulating memory traces in the hippocampus 2021  
 UCLA  
 Los Angeles, CA

Manipulating memory traces in the hippocampus 2020  
 University of Texas, San Antonio  
 San Antonio, TX

Manipulating memory traces in the hippocampus 2019  
 University of Texas, Southwestern  
 Dallas, TX

The role of the hippocampus in memory retrieval 2019  
 UC Irvine, annual spring meeting  
 Irvine, CA

Manipulating memory traces in the hippocampus 2018  
 California Institute of Technology  
 Pasadena, CA

Mechanisms of memory retrieval in the hippocampus 2018  
 SFN Minisymposium  
 San Diego, CA

Neurobiological mechanisms of trace conditioning 2018

Pavlovian Society meeting Iowa City, IA	
Metaplasticity contributes to memory formation in the hippocampus UC Irvine, CNLM 35 <sup>th</sup> annual meeting Huntington Beach, CA	2018
Experience modifies the mechanisms of memory American College of Neuropsychopharmacology (ACNP) meeting Palm Springs, CA	2017
Memory retrieval along the proximodistal axis of CA1 Spring Hippocampal research meeting Taormina, Italy	2017
Manipulating memory retrieval Cornell University Ithaca, NY	2017
Neurobiology of memory consolidation University of California, San Diego San Diego, CA	2017
Recent and remote memory retrieval Tufts University Boston, MA	2017
Manipulating memory consolidation Neurobiology of Learning & Memory Winter Meeting Park City, Utah	2017
Interactions between the hippocampus and neocortex during memory retrieval Memory Mechanisms in Health and Disease Conference Tampa, FL	2016
Retrieving memory with the hippocampus Northwestern University Chicago, IL	2016
Interactions between the hippocampus and neocortex during memory retrieval McKnight Foundation Annual Meeting Minneapolis, MN	2016
Context fear and the hippocampus Pavlovian Society Meeting Portland, OR	2015
The hippocampus reactivates cortical representations during memory retrieval Annual Meeting of the Japan Neuroscience Society	2015

Kobe, Japan

Interactions between the hippocampus and neocortex during memory retrieval 2015  
Center for the Neurobiology of Learning and Memory Spring Meeting  
Irvine, CA

Retrieving memory with the hippocampus 2015  
Brain, Cognition, Behavior and Evolution Meeting  
Sao Paulo, Brazil

Cortical representations are reactivated during memory retrieval 2014  
Annual Meeting of the Japan Neuroscience Society  
Yokohama, Japan

Hippocampal replay and memory retrieval 2013  
Pavlovian Society Meeting  
Austin, TX

Reactivation of hippocampal and cortical circuits during memory consolidation 2013  
European Brain and Behavior Society Conference  
Munich, Germany

Reactivation of hippocampal and cortical circuits during memory consolidation 2012  
Memory Disorders Research Society (MDRS) Meeting  
Davis, CA

Reactivation of neural ensembles during memory retrieval 2012  
Winter Conference on Neural Plasticity  
St. Kitts, Caribbean

Reactivation of individual neurons in the hippocampus and neocortex 2012  
UC Irvine Center for the Neurobiology of Learning & Memory  
Irvine, CA

Recent and remote context fear memories 2011  
Neurobiology of Learning & Memory Winter Meeting  
Park City, Utah

The cellular mechanisms of memory are modified by experience 2010  
Duke University, Psychology Department Seminar  
Durham, NC

Precise context memories require the hippocampus 2010  
Pavlovian Society Meeting  
Baltimore, MD

---

**Research Sponsorship**

**University of California, Davis**

**Graduated Ph.D. students**

Jacob Wilmot, Ph.D., 2022

Postdoc at Boston University with Dr. Michael Hasselmo

Jamie Slater, Ph.D., 2019

Postdoc at Purdue University with Dr. Susan Sangha

Jalina Graham, Ph.D., 2019

Postdoc at Dartmouth University with Dr. Jeffery Taube

Anahita Hamidi, Ph.D., 2017

Science writer at the Broad Institute in Cambridge, MA

Kazumasa Tanaka, Ph.D. 2015

Assistant Professor at the Okinawa Institute of Science and Technology Graduate University  
Okinawa, Japan

**Current Ph.D. students**

Yusuke Ota, Ph.D. candidate, 2015-

Kyle Puhger, Ph.D. candidate, 2016-

Ana Finnerty-Haggerty, 2022-

**Undergraduate honors theses**

Sassan Suarez

Rasika Venkatesh

Renee Rosiles (in progress)

**Diversity programs**

Accelerating Success by Providing Intensive Research Experience (ASPIRE) Program

UC Davis

Renee Rosiles

Accelerating Success by Providing Intensive Research Experience (ASPIRE) Program

UC Davis

Rasika Venkatesh

Biological undergraduate honors program (BUSP)

UC Davis

Sassan Suarez

HHMI Exceptional Research Opportunities Program (EROG)

UC Davis

Sassan Suarez

California Alliance for Minority Participation (CAMP)

UC Davis

Daffcar Erol

UC LEADS (minority summer internship)  
UC Santa Cruz  
Osmar Aguirre

## University of Virginia

### Graduated Ph.D. students

Kaycie Tayler, Ph.D., 2013  
Engineer at Northrop Grumman in San Diego, CA

### Undergraduate honors theses

Pratik Patel  
Zach Collier  
Courtney Sinclair  
Bryce Grier  
Samuel Bacharach

---

## Review service

Journal reviewer: ad hoc for Science, Neuron, Nature Neuroscience, Journal of Neuroscience, Neurobiology of Learning and Memory, Hippocampus, Learning & Memory, Current Biology, Biology Psychiatry, Frontiers in Behavioral Neuroscience

Grant reviewer: standing member NIH/Learning, Memory and Decision Neuroscience (LMDN, previously called LAM) (2017-2023), ad hoc for NIH/NIDA SEP (2011), NIH/Neurobiology of Learning and Memory Study Section (2014, 2015), NIH/SEP (2014, 2015), NIH/Cognitive Neuroscience Study Section (2016), Canada Foundation for Innovation (2016)

---

## University Service

### UC Davis

#### Departmental and college committees

UC Davis, Learning, Memory & Plasticity T32 Executive Committee	2018-current
UC Davis, Memory and Plasticity Program Executive Committee	2018-current
Department of Psychology, Department Rankings and Visibility Committee	2018-current
Department of Psychology, Biopsychology Area Head	2017-current
Department of Psychology, Executive Committee	2017-current
Center for Neuroscience, Mouse Behavior Core Director	2016-current
Center for Neuroscience, Shared Space and Equipment Committee	2016-current
Graduate Advisor for the Neuroscience Graduate Program	2016-current
Neuroscience Graduate Program Qualifying Exam Committee	2013-current
UC Davis, College of Biological Sciences Curriculum Review Committee	2018-2019
Department of Psychology, Biopsychology Search Committee	2016
Center for Neuroscience, Systems Search Committee	2015
Center for Neuroscience Steering Committee	2015-2017



Department of Psychology Spring Conference Committee	2014-2015
Perspectives in Neuroscience Seminar Committee	2013-2016
Neuroscience Graduate Admissions Committee	2013-2015

Student committees (non-advisor)

Ksenia Vlasov, Ph.D. committee  
Alexa D'Ambra, Ph.D. committee  
Ayanna Wade, Ph.D. committee  
Max Vargas, Ph.D. committee  
Kyle Ireton, Ph.D. committee  
Lindsay Cameron, Ph.D. committee  
Marika Inhoff, Ph.D. committee  
Halle Zucker, Ph.D. committee  
Ayanna Wade, Ph.D. committee  
Kyle Ireton, Ph.D. committee  
Ana Crestani, Ph.D. committee  
Gian Greenberg, Ph.D. committee  
Milagros Copara, Ph.D. committee  
Abigail Laman-Maharg, Ph.D. committee  
Branden Kolarik, Ph.D. committee  
Halle Zucker, written examination committee  
Marika Inhoff, written examination committee  
Alyssa Borders, written examination committee

**University of Virginia**

Departmental and college committees

Psychology Department Undergraduate Curriculum Committee	2010-2012
Psychology Department Colloquium Committee	2010-2012
Neuroscience Graduate Program Seminar Committee	2009-2012
Psychology Department Chair Nomination Committee	2010

Student committees (non-advisor)

Erin Kerfoot, Ph.D. committee  
Stanley King, Ph.D. committee  
Erica Young, Ph.D. committee  
Rebecca Reddaway, Ph.D. committee  
Su Park, Ph.D. committee

---

**Professional Membership**

American Psychology Association, Molecular & Cellular Cognition Society, Pavlovian Society, Society for Neuroscience

---

**Publications**

## Journal articles

Total citations = 5,821 as of June 3, 2021

H-Index: 27

i10-index: 32

## Manuscripts in preparation

Wilmot J.H., Puhger K., Roshgadol J., Tian L., **Wiltgen, B.J.** Phasic locus coeruleus activity facilitates aversive learning in the dorsal hippocampus.

Puhger K., Wilmot J.H., Rosiles E., Tian L., **Wiltgen, B.J.** Discontiguous events are associated in dorsal CA1 after they occur.

Teratani-Ota, Y., Tian L., **Wiltgen, B.J.** Learning about objects and their locations in proximal and distal CA1.

Wilmot J.H., Lafreniere, M.M., **Wiltgen, B.J.** Dysregulated c-Fos expression in engram tagging fos-tTA reporter mice.

## Published

Graham, J., D'Ambra, A. F., Jung, S.J., Teratani-Ota, Y., Vishwakarma, N., Venkatesh, R., Parigi, A., Antzoulatos, E.G., Fioravante, D., **Wiltgen, B.J.** (2021). High-frequency stimulation of ventral CA1 neurons reduces amygdala activity and inhibits fear. *Front Behav Neurosci*, 15, 595049. doi: 10.3389/fnbeh.2021.595049

Patriarchi T., Mohebi A., Sun J., Marley A., Liang R., Dong C., Puhger K., Mizuno G.O., Davis C.M., **Wiltgen B.**, von Zastrow M., Berke J.D., Tian L. An expanded palette of dopamine sensors for multiplex imaging in vivo. *Nat Methods* (2020) Nov;17(11):1147-1155. doi: 10.1038/s41592-020-0936-3.

Krueger, J. N., Wilmot, J. H., Teratani-Ota, Y., Puhger, K. R., Nemes, S. E., Crestani, A. P., Lafreniere, M. M., **Wiltgen, B. J.** (2020). Amnesia for context fear is caused by widespread disruption of hippocampal activity. *Neurobiol Learn Mem*, 175, 107295. doi: 10.1016/j.nlm.2020.107295.

Wilmot, J., Puhger K., **Wiltgen, B. J.** (2019) Acute disruption of the dorsal hippocampus disrupts trace fear encoding and retrieval. *Frontiers in Behavioral Neuroscience*, 13(116): 1-9. doi: 10.3389/fnbeh.2019.00116

Yonelinas, A. P., Ranganath, C., Ekstrom, A. D., **Wiltgen, B. J.** (2019) A contextual binding theory of episodic memory: systems consolidation reconsidered. *Nature Reviews Neuroscience*, 20(6): 364-375. doi: 10.1038/s41583-019-0150-4.

Crestani, A. P., Krueger, J. N., Eden, E. V., Nakazawa Y., Nemes, S. E., Quillfeldt, J. A., Gray, J. A., **Wiltgen, B. J.** (2019) Metaplasticity contributes to memory formation in the hippocampus. *Neuropsychopharmacology*, 44(2): 408-414. doi: 10.1038/s41386-018-0096-7

Nakazawa, Y., Pevzner, A., Tanaka, K. Z., **Wiltgen, B. J.** (2016) Memory retrieval along the proximodistal axis of CA1. *Hippocampus* 26(9): 1140-1148. doi: 10.1002/hipo.22596

Tanaka, K.Z., Pevzner, A., Hamidi, A., Nakazawa, Y., Graham, J., **Wiltgen, B.J.** (2014) Cortical representations are reinstated by the hippocampus during memory retrieval. *Neuron*, 84(2): 347-54. doi: 10.1016/j.neuron.2014.09.037

Czajkowski, R., Jayaprakash, B., **Wiltgen, B.**, Rogerson, T., Guzman-Karlsson, M.C., Barth, A.L., Trachtenberg, J.T., Silva, A.J. (2014). Encoding and storage of spatial information in the retrosplenial cortex. *Proc Natl Acad Sci U S A* 111(23): 8661-8666. doi: 10.1073/pnas.1313222111

Taylor, K.K., **Wiltgen, B.J.** (2013) New methods for understanding systems consolidation. *Learn Mem*, 20(10):553-7. doi: 10.1101/lm.029454.112

**Wiltgen B.J.**, Tanaka K.Z. (2013) Systems consolidation and the content of memory. *Neurobiol Learn Mem*, 106:365-71. doi: 10.1016/j.nlm.2013.06.001

Taylor, K.K., Tanaka, K.Z., Reijmers, L.G., **Wiltgen, B.J.** (2013) Reactivation of neural ensembles during the retrieval of recent and remote memory. *Current biology*, 23(2) 99-106. doi: 10.1016/j.cub.2012.11.019

Boscolo, A., Ori, C., Bennett, J., **Wiltgen B.**, Jevtovic-Todorovic, V. (2013). Mitochondrial protectant pramipexole prevents sex-specific long-term cognitive impairment from early anesthesia exposure in rats. *Br J Anaesth* 110 Suppl 1: i47-52. doi: 10.1093/bja/aet073

**Wiltgen, B. J.**, Sinclair, C., Lane, C., Barrows, F., Molina, M., Chabanon-Hicks, C. (2012) The effect of ratio and interval training on Pavlovian-instrumental transfer in mice. *PLoS One*, 7(10), e48227. doi: 10.1371/journal.pone.0048227

Clement, J.P., Aceti, M., Creson, T. K., Ozkan, E. D., Shi, Y., Reish, N.J., Almonte, A.G., Miller, B.H., **Wiltgen, B.J.**, Miller, C.A., Xu, X., Rumbaugh, G. (2012) Pathogenic SYNGAP1 mutations impair cognitive development by disrupting maturation of dendritic spine synapses. *Cell* 151(4): 709-723. doi: 10.1016/j.cell.2012.08.045

Nussbaum, J. M., Schilling, S., Cynis, H., Silva, A., Swanson, E., Wangsanut, T., Taylor, K., **Wiltgen, B.**, Hatami, A., Ronicke, R., Reymann, K., Hutter-Paier, B., Alexandru, A., Jagla, W., Graubner, S., Glabe, C.G., Demuth, H.U., Bloom, G.S. (2012). Prion-like behaviour and tau-dependent cytotoxicity of pyroglutamylated amyloid-beta. *Nature* 485(7400): 651-655. doi: 10.1038/nature11060

**Wiltgen, B.J.**, Wood, A.N., Levy, B. (2011) The cellular mechanisms of memory are modified by experience. *Learning & memory*, 18(12): 747-50. doi: 10.1101/lm.024026.111

Warthen, D.M., **Wiltgen, B.J.**, Provencio, I. (2011) Light enhances learned fear. *Proc Natl Acad Sci U S A*, 108(33): 13788-93. doi: 10.1073/pnas.1103214108

Taylor, KK, Lowry, E, Tanaka, K, Levy, B, Reijmers, L, Mayford, M, **Wiltgen, BJ.** (2011)

Characterization of NMDAR-Independent Learning in the Hippocampus. *Frontiers in behavioral neuroscience*, 5: 28. doi: 10.3389/fnbeh.2011.00028

**Wiltgen, BJ**, Royle, GA, Gray, EE, Abdipranoto, A, Thangthaeng, N, Jacobs, N, Saab, F, Tonegawa, S, Heinemann, SF, O'Dell, TJ, Fanselow, MS, Vissel, B. (2010) A role for calcium-permeable AMPA receptors in synaptic plasticity and learning. *PloS one*, 5(9) e12818. doi: 10.1371/journal.pone.0012818

**Wiltgen, BJ**, Zhou, M, Cai, Y, Balaji, J, Karlsson, MG, Parivash, SN, Li, W, Silva, AJ. (2010) The hippocampus plays a selective role in the retrieval of detailed contextual memories. *Current biology*, 20(15): 1336-44. doi: 10.1016/j.cub.2010.06.068

**Wiltgen, BJ**, Godsil, BP, Peng, Z, Saab, F, June, HL, Linn, ML, Cook, JM, Houser, CR, O'Dell, TJ, Homanics, GE, Fanselow, MS. (2009) The alpha1 subunit of the GABA(A) receptor modulates fear learning and plasticity in the lateral amygdala. *Frontiers in behavioral neuroscience*, 3: 37. doi: 10.3389/neuro.08.037.2009

Czajkowski, M., **Wiltgen, B.**, Balaji, J., Rogerson, T., Guzman-Karlsson, M., Barth, A., & Silva, A. (2009). Insights into spatial memory formation in retrosplenial cortex. *Acta Neurobiologiae Experimentalis*, 69(3).

Matynia, A., Anagnostaras, S. G., **Wiltgen, B. J.**, Lacuesta, M., Fanselow, M. S., Silva, A. J. (2008) A high through-put reverse genetic screen identifies two genes involved in remote memory in mice. *PLoS one*, 3(5), e2121. doi: 10.1371/journal.pone.0002121

Zhou, Y, Takahashi, E, Li, W, Halt, A, **Wiltgen, BJ**, Ehninger, D, Li, GD, Hell, JW, Kennedy, MB, Silva, AJ. (2007) Interactions between the NR2B receptor and CaMKII modulate synaptic plasticity and spatial learning. *The Journal of neuroscience*, 27(50): 13843-53. doi: 10.1523/JNEUROSCI.4486-07.2007

**Wiltgen, BJ**, Silva, AJ. Memory for context becomes less specific with time. (2007) *Learning & memory*, 14(4): 313-7. doi: 10.1101/lm.430907

**Wiltgen, B. J.**, Law, M., Ostlund, S., Mayford, M., Balleine, B. W. (2007). The influence of Pavlovian cues on instrumental performance is mediated by CaMKII activity in the striatum. *Eur J Neurosci*, 25(8), 2491-2497. doi: 10.1111/j.1460-9568.2007.05487.x

**Wiltgen, BJ**, Sanders, MJ, Anagnostaras, SG, Sage, JR, Fanselow, MS. (2006) Context fear learning in the absence of the hippocampus. *The Journal of neuroscience*, 26(20): 5484-91. doi: 10.1523/JNEUROSCI.2685-05.2006

**Wiltgen, BJ**, Sanders, MJ, Ferguson, C, Homanics, GE, Fanselow, MS. (2005) Trace fear conditioning is enhanced in mice lacking the delta subunit of the GABAA receptor. *Learning & memory*, 12(3): 327-33. doi: 10.1101/lm.89705

**Wiltgen, BJ**, Brown, RA, Talton, LE, Silva, AJ. (2004) New circuits for old memories: the role of the neocortex in consolidation. *Neuron*, 44(1): 101-8. doi: 10.1016/j.neuron.2004.09.015

Gale, G. D., Anagnostaras, S. G., Godsil, B. P., Mitchell, S., Nozawa, T., Sage, J. R., **Wiltgen, B.**, Fanselow, M. S. (2004). Role of the basolateral amygdala in the storage of fear memories across the adult lifetime of rats. *J Neurosci*, *24*(15), 3810-3815. doi: 10.1523/JNEUROSCI.4100-03.2004

Sanders, M. J., **Wiltgen, B. J.**, Fanselow, M. S. (2003) The place of the hippocampus in fear conditioning. *Eur J Pharmacol*, *463*(1-3), 217-223. doi: 10.1016/s0014-2999(03)01283-4

Meffert, M. K., Chang, J. M., **Wiltgen, B. J.**, Fanselow, M. S., Baltimore, D. (2003) NF-kappa B functions in synaptic signaling and behavior. *Nat Neurosci*, *6*(10), 1072-1078. doi: 10.1038/nn1110

**Wiltgen, B. J.**, Sanders, M. J., Behne, N. S., Fanselow, M. S. (2001) Sex differences, context preexposure, and the immediate shock deficit in Pavlovian context conditioning with mice. *Behav Neurosci*, *115*(1), 26-32. doi: 10.1037/0735-7044.115.1.26

---

### **Ph.D. Dissertation**

Characterization of dorsal and ventral hippocampal contributions to context fear in a CA1-specific knockout mouse. UCLA, 2003, Available from Dissertations & Theses @ University of California; ProQuest Dissertations & Theses A&I. (305348257).

---

### **Book chapters**

Shilyansky, C., Weidong L., Acosta, M., Elgersma, Y., Hannan, M. Hardt, F., Hunter-Schaedle, K., Krab, L.C., Legius, E., **Wiltgen, B.**, and Silva, A.J. (2008) Molecular and Cellular Mechanisms of Learning Disabilities: A Focus on Neurofibromatosis Type I. *Animal and Translational Models for CNS Drug Discovery: Neurological Disorders*. R. A. McArthur and F. Borsini, Academic Press. 2: 77-92.

**Wiltgen, BJ.**, Brown, R.A.M., Talton, L.E., Silva A.J. (2007) Towards a Molecular and Cellular Understanding of Remote Memory, Bontempi, B., Silva, A.J., Christen, Y., (ed), *Memories: Molecules and Circuits*, Springer, New York.

**Wiltgen, BJ**, Fanselow, M.S. (2003) A model of hippocampal-cortical-amygdala interactions based on context fear conditioning, Jeffery, K.J., (ed), *The Neurobiology of Spatial Behaviour*, Oxford University Press, Oxford.