

Dartmouth College, Hanover, New Hampshire,
September 1, 2013 July 31, 2017
Advisor: David J. Bucci

AWARDS AND HONORS

- 2017 Best Article Award in *Learning & Behavior* for Williams, Todd, Chubala, & Ludvig (2017), *Psychonomic Society*
- 2013 Division 3 (Experimental Psychology) New Investigator Award for *Journal of Experimental Psychology: Animal Behavior Processes*, American Psychological Association
- 2012 Ronald Suiter Prize, College of Arts and Sciences, University of Vermont
- 2007 Certificate of Academic Excellence, Canadian Psychological Association
- 2007 Politics Gold Medal, University of Winnipeg

CLASSROOM TEACHING

Dartmouth College:

- 2015 - 2020 *Learning*, Undergraduate Course
- 2018 *Learning and Memory: Pavlovian and Instrumental Conditioning*, Graduate Course
- 2015 *Clinical Applications of Learning Theory*, Undergraduate Course

University of Vermont:

- 2013 *Learning*, Undergraduate Course
- 2011 *Learning, Cognition, and Behavior*, Undergraduate Course
- 2009

- 2019-2024 R01, National Institute of Mental Health, *Cortical circuitry and mechanisms underlying remote cue-specific fear memory and extinction* (\$2,579,783). PI.
- 2018-2022 Mentored Research Scientist Development Award (K01), National Institute of Mental Health, *Cortical ensemble coding and circuit dynamics of fear suppression*. (~\$651,004). PI.
- 2016 *Cortical contributions to the reduction of remotely acquired fear memories*. Hitchcock Foundation Pilot Grant. (\$20,204). PI.
- 2014-2017 Postdoctoral Individual National Research Service Award, National Institute of Mental Health, *Cortico-hippocampal contributions to context and extinction learning*. PI.
- 2012 Graduate Student Summer Research Fellowship, Graduate College, University of Vermont.
- 2010-2012 Postgraduate Scholarship D (doctoral), Natural Sciences and Engineering Research Council of Canada, (\$21,000 per year).
- 2008-2010 Research Council of Canada, (\$17,500 per year).
- 2008 Canadian Graduate Scholarship, Natural Sciences and Engineering Research Council of Canada, (declined in order to accept Postgraduate Scholarship M).
- 2007 Undergraduate Student Research Award, Natural Sciences and Engineering Research Council of Canada, (\$7,500).
- 2005 Academic Proficiency Scholarship, University of Winnipeg.
- 2002 Special Entrance Scholarship, University of Winnipeg.

EDITORIAL EXPERIENCE

- 2021 *Neurobiology of Learning & Memory*. Special issue to commemorate the scientific legacy of David J. Bucci. Guest editors: Travis P. Todd and Fred Helmstetter.

DOCTORAL DISSERTATION

Mechanisms of renewal after the extinction of instrumental behavior

PUBLICATIONS

(Google Scholar Profile: h-index = 21, Citations = 1843)

*Undergraduate author

**Corresponding author

Research Articles:

1. *Tavakkoli, A., Fournier, D. I., Bucci, D. J., & **Todd, T. P****. (2020). Reduced renewal of conditioned suppression following lesions of the dorsal hippocampus in male rats. *Behavioral Neuroscience*, *134*, 444-459.
2. Thrailkill, E. A., **Todd, T. P.**, & Bouton, M. E. (2020). Effects of CS duration, intertrial interval, and I/T ration on appetitive Pavlovian conditioning. *Journal of Experimental Psychology: Animal Learning & Cognition*, *46*, 243-255.
3. Fournier, D. I., *Monasch, R., Bucci, D. J., & **Todd, T. P****. (2020). Retrosplenial cortex damage impairs unimodal sensory preconditioning. *Behavioral Neuroscience*, *134*, 198-207.
4. Fournier, D. I., **Todd, T. P.**, & Bucci, D. J. (2019). Permanent damage or temporary silencing of retrosplenial cortex impairs the expression of negative patterning discrimination. *Neurobiology of Learning & Memory*, *163*, 1-10. (cover article).
5. Lachance, P. A., **Todd, T. P.**, & Taube, J. S. (2019). A sense of space in postrhinal cortex. *Science*, *365*, eaax(4192).
6. **Todd, T. P.**, *Jiang, M. Y., DeAngeli, N. E., & Bucci, D. J. (2018). A functional circuit for the retrieval of remote cued fear memory. *Behavioral Neuroscience*, *132*, 403-408.
7. *Jiang, M. Y., DeAngeli, N. E., Bucci, D. J., & **Todd, T. P****. (2018). Retrosplenial cortex has a time-dependent role in memory for visual stimuli. *Behavioral Neuroscience*, *132*, 396-402.
8. Chang, S. E., **Todd, T. P.**, & Smith, K. S. (2018). Paradoxical accentuation of motivation following accumbens-pallidum disconnection. *Neurobiology of Learning & Memory*, *149*, 39-45.
9. Khokar, J. Y., & **Todd, T. P.** (2018). Behavioral predictors of alcohol drinking in a neurodevelopmental rat model of schizophrenia and co-occurring alcohol use disorder. *Schizophrenia Research*, *194*, 91-97.
10. **Todd, T. P****., DeAngeli, N. E., *Jiang, M. Y., & Bucci, D. J. (2017). Retrograde amnesia of contextual fear conditioning: evidence for retrosplenial cortex involvement in configural processing. *Behavioral Neuroscience*, *131*, 46-54.

22. Robinson, S., **Todd, T. P.**, *Pasternak, A. R., Luikart, B. W., Skelton, P. D., Urban, D. J., & Bucci, D. J. (2014). Chemogenetic silencing of neurons in retrosplenial cortex disrupts sensory preconditioning. *Journal of Neuroscience*, *34*, 10982-10988.
23. **Todd, T. P.**, Vurbic, D., & Bouton, M. E. (2014). Mechanisms of renewal after the extinction of discriminated operant behavior, *Journal of Experimental Psychology: Animal Learning and Cognition*, *40*, 355-368.
24. Bouton, M. E., Woods, A. M., & **Todd, T. P.** (2014). Separation of time-based and trial-based accounts of the partial reinforcement extinction effect. *Behavioral Processes*, *101*, 23-31.
25. Bouton, M. E., **Todd, T. P.**, & León, S. P. (2014). Contextual control of discriminated operant learning. *Journal of Experimental Psychology: Animal Learning and Cognition*, *40*, 92-105.
26. **Todd, T. P.**.** (2013). Mechanisms of renewal after the extinction of instrumental behavior. *Journal of Experimental Psychology: Animal Behavior Processes*, *39*, 193-207.
27. Bouton, M. E., **Todd, T. P.**,

33. **Todd, T. P.**.**, Fournier, D., I., & Bucci, D. J. (2019). Retrosplenial cortex and its role in cue-specific learning and memory. *Neuroscience and Biobehavioral Reviews*, *107*, 713-728.
34. **Todd, T. P.**, & Bucci, D. J. (2015). Retrosplenial cortex and long-term memory: Molecules to behavior. *Neural Plasticity*, *414173*, 1-9.
35. Bouton, M. E., & **Todd, T. P.** (2014). A fundamental role for context in controlling instrumental learning and extinction. *Behavioral Processes*, *104*, 13-19.
36. **Todd, T. P.**, Vurbic, D., & Bouton, M. E. (2014). Behavioral and neurobiological mechanisms of extinction in Pavlovian and instrumental learning. *Neurobiology of Learning and Memory*, *108*, 52-64.
37. Rosas, J. M., **Todd, T. P.**, & Bouton, M. E. (2013). Context change and associative learning. *WIREs Cogn Sci*, *4*, 237-244.
38. Bouton, M. E., Winterbauer, N. E., & **Todd, T. P.** (2012). Relapse processes after the extinction of instrumental learning: renewal, resurgence and reacquisition. *Behavioural Processes*, *90*, 130-141.

Book Chapters and Encyclopedia Entries:

39. **Todd, T. P.**, & Thrailkill, E. A. (2017). Extinction. In A. Wenzel (Ed.), *Encyclopedia of abnormal and clinical psychology* (pp. 1408-1410). SAGE Publications.
40. **Todd, T. P.**, & Bouton M. E. (2012). Trial spacing effect in associative learning. In N. M. Seel (Ed.), *Encyclopedia of the sciences of learning* (pp. 3345-3347). New York: Springer.

Articles Submitted or in Preparation:

41. Fournier, D. I., Cheng, H., Tavakkoli, A., Gullledge, A., Bucci, D. J., & **Todd, T. P.**** Chemogenetic silencing of the retrosplenial cortex impairs retrieval of remotely acquired auditory fear conditioning. (submitted). *Neurobiology of Learning & Memory*.

SERVICE AT PROFESSIONAL MEETINGS

1. Session Chair (2021). Behavioral Neuroscience Keynote: Mihaela Iordanova. Eastern Psychological Association.
2. Session Chair (2020). The Scientific Legacy of David Bucci. Annual Meeting of the Pavlovian Society.

3. Behavioral Neuroscience Program Chair (2020 – 2022). Eastern Psychological Association.

10. **Todd, T. P.** (April, 2016). Cues, contexts, and fear: Cortical contributions to learning of Maryland, Maryland, USA.
11. **Todd, T. P.** (June, 2015). Behavioral and neurobiological mechanisms of extinction in Pavlovian and instrumental learning. Paper presented at the University of Winnipeg, Winnipeg, Manitoba, Canada.
12. **Todd, T. P.** (November, 2013). Mechanisms of renewal after the extinction of free and discriminated operant behavior. Paper presented at the Young Scientists Symposium on Extinction Learning: Neural Mechanisms, Behavioral Manifestations, and Clinical Implications, Bochum, Germany.

PRESENTATIONS AT PROFESSIONAL MEETINGS

1. DeAngeli, N. E., Bucci, D. J., & **Todd, T. P.** (2020). Contributions of the postrhinal cortex to auditory fear conditioning. Paper presented at the Gregynog Associative Learning Symposium, Wales.
*Conference cancelled due to COVID-19.
2. **Todd, T. P.**, Tavakkoli, A., Fournier, D. I., & Bucci, D. J. (2019). Reduced renewal of conditioned suppression following lesions of the dorsal hippocampus. Paper presented at the Gregynog Associative Learning Symposium, Wales.
3. **Todd, T. P.**, Tavakkoli, A., & Bucci, D. J. (2019). Contributions of dorsal hippocampus to renewal of conditioned suppression. Paper presented at the Eastern Psychological Association, Manhattan, New York.
4. **Todd, T. P.** (January, 2018). More than space and place? Retrosplenial and cue specific learning and memory. Paper presented at the Neuroscience, Behavior and Health Research Forum, Burlington, Vermont.
5. **Todd, T. P.**, Jiang, M. Y., DeAngeli, N. E., & Bucci, D. J. (2016). Effects of retrosplenial cortex lesions on renewal and contextual fear conditioning. Paper presented at the Eastern Psychological Association, Manhattan, New York.
6. Jordan, W. P., **Todd, T. P.**, & Leaton, R. L. (March, 2016). Contextual control of extinction in a latent inhibition paradigm. Paper presented at the Eastern Psychological Association, Manhattan, New York.
7. **Todd, T. P.**, & Bucci, D. J. (June, 2015). Role of retrosplenial cortex in higher-order conditioning. Paper presented at the Vermont Summer Summit, Dartmouth College, Hanover, New Hampshire.

8. Leaton, R. N., **Todd, T. P.**, Bucci, D. J., & Jordan, W. P. (June, 2015). Latent inhibition, autoshaping, and extinction. Paper presented at the Vermont Summer Summit, Dartmouth College, Hanover, New Hampshire.
9. **Todd, T. P.**, Chang, S. E., Bucci, D. J., & Smith, K. S. (2015). Inhibiting ventral pallidum with DREADDs impairs sign-tracking in rats. Paper presented at the Eastern Psychological Association, Philadelphia, Pennsylvania.
10. Chang, S. E., **Todd, T. P.**, Bucci, D. J., & Smith, K. S. (2015). Disconnection of the nucleus accumbens shell and ventral pallidum enhances sign-tracking in rats. Paper presented at the Eastern Psychological Association, Philadelphia, Pennsylvania.
11. Thrailkill, E. A., **Todd, T. P.**, & Bouton, M. E. (2014). Effects of CS duration, intertrial interval, and the I/T ration on appetitive conditioning. Paper presented at the Eastern Psychological Association, Boston, Massachusetts.
12. **Todd, T. P.**, Vurbic, D., & Bouton, M. E. (March, 2014). Mechanisms of renewal after the extinction of discriminated operant behavior. Paper presented at the Eastern Psychological Association, Boston, Massachusetts.
13. Bouton, M. E., **Todd, T. P.**, León, S. P. (May, 2013). Contextual control of free and discriminated operant behavior. Paper presented at the Society for the Quantitative Analyses of Behavior, Minneapolis, Minnesota.
14. **Todd, T. P.** (March, 2013). Mechanisms of renewal after the extinction of instrumental behavior. Paper presented at the Eastern Psychological Association, Manhattan, New York.
15. Bouton, M. E., **Todd, T. P.**, Lucke, S., Vurbic, D., & Winterbauer, N. E. (April, 2012). Contextual control of instrumental extinction: Renewal and resurgence. Paper presented at the Symposium on Associative Learning, Gregynog, Wales.
16. **Todd, T. P.**, Winterbauer, N. E., & Bouton, M. E. (June, 2011). Contextual control of operant extinction learning. Paper presented at the Vermont Summer Summit, University of Vermont, Burlington, Vermont.
17. Bouton, M. E., **Todd, T. P.**, Vurbic, D., & Winterbauer, N. E. (May, 2011). Contextual control of operant extinction learning. Paper presented at the Society for the Quantitative Analyses of Behavior, Denver, Utah.
18. **Todd, T. P.**

19. Winterbauer, N. E., Vurbic, D., **Todd, T. P.**, & Bouton, M. E. (June, 2010).
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16. **Todd, T. P.**, DeAngeli, N., E. Jiang, M. Y., & Bucci, D. J. (2015). Lesions of the retrosplenial cortex attenuate context fear conditioning, but not incidental context learning. Poster presented at the meeting of the Society for Neuroscience, Chicago, IL.
17. Jiang, M. Y., DeAngeli, N. E., Bucci, D. J., & **Todd, T. P.** (2015). Lesions of the retrosplenial cortex have no impact on renewal of extinguished fear, but attenuate context fear conditioning. Poster presented at the meeting of the Society for Neuroscience, Chicago, IL.
18. DeAngeli, N. E., **Todd, T. P.**, & Bucci, D. J. (2015). Chemogenetic silencing of the retrosplenial cortex disrupts retrieval of remote trace fear. Poster presented at the meeting of the Society for Neuroscience, Chicago, IL.
19. Chang, S. E., **Todd, T. P.**, Bucci, D. J., & Smith, K. S. (2015). Disconnection of ventral pallidum and nucleus accumbens shell with DREADDs enhances sign-tracking in rats. Poster presented at the meeting of the Society for Neuroscience, Chicago, IL.
20. DeAngeli, N. D., **Todd, T. P.**, Chang, S. C., & Bucci, D. J. (2015). Chronic l-kynurenine treatment during adolescents facilitates sign-tracking in adult rats. Poster presented at the Eastern Psychological Association, Philadelphia, Pennsylvania.
21. Chang, S. C., **Todd, T. P.**, Bucci, D. J., & Smith, K. S. (November, 2014). Inhibiting ventral pallidum with DREADDs impairs sign-tracking in rats. Poster presented at the meeting of the Society for Neuroscience, Washington, D. C.
22. **Todd, T. P.**, Meyer, H. C., & Bucci, D. J. (November, 2014). Lesions of the retrosplenial cortex impair temporal learning. Poster presented at the meeting of the Society for Neuroscience, Washington, D. C.
23. Pizzo, A., **Todd, T. P.**, Camp, D., & Bucci, D. (November, 2014). Neural activity in retrosplenial cortex during retrieval of remote fear memories. Poster presented at the meeting of the Society for Neuroscience, Washington, D. C.
24. Thrailkill, E. A., **Todd, T. P.**, & Bouton, M. E. (September, 2014). Effects of CS duration, intertrial interval and the I/T ratio on appetitive conditioning. Poster presented at the meeting of the Pavlovian Society, Seattle, Washington.
25. Eddy, M. C., **Todd, T. P.**, & Bouton, M. E., & Green, J.T. (September, 2014). Exercise in adolescent rats reduces renewal of extinguished instrumental behavior. Poster presented at the meeting of the Pavlovian Society, Seattle, Washington.
26. **Todd, T. P.**, Vurbic, D., & Bouton, M. E. (September, 2013). Renewal after extinction of discriminated operant behavior: Role of context-specific response inhibition. Poster presented at the meeting of the Pavlovian Society, Austin, Texas.

27. León, S. P., Vurbic, D., **Todd, T. P.**, & Bouton, M. E. (September, 2012). ABA and AAB renewal in a discriminated operant procedure with rats. Poster presented at the 2nd Joint Meeting of the Spanish Society for Comparative Psychology and the International Society for Comparative Psychology, Jaén, Andalusia, Spain.
28. **Todd, T. P.**, Winterbauer, N. E., & Bouton, M. E. (March, 2012). Contextual control of appetite: Renewal of inhibited food-seeking behavior in rats after extinction. Poster presented the Eastern Psychological Association, Pittsburgh, Pennsylvania.
29. **Todd, T. P.**, Winterbauer, N. E., & Bouton, M. E. (February, 2012). Contextual control of appetite: Renewal of inhibited food-seeking behavior in rats after extinction. Poster presented the Neuroscience, Behavior and Health Research Forum, Burlington, Vermont.
30. **Todd, T. P.**, Winterbauer, N. E., & Bouton, M. E. (October, 2010) Effects of self-generated priming on the acquisition of conditioned responding. Poster presented at the meeting of the Pavlovian Society, Baltimore, Maryland.
31. **Todd, T. P.**, Vurbic, D., Winterbauer, N.E., and Bouton, M. E. (April, 2010). Renewal of responding following extinction of an instrumental response. Poster presented at the Graduate Student Research Conference, University of Vermont, Burlington, Vermont.
32. Winterbauer, N. E., **Todd, T. P.**, & Bouton, M. E. (January, 2010). Predictability of the temporal relationship between CS and US affects the distribution of conditioned responding. Poster presented at the 2010 Neuroscience Research Forum, University of Vermont, Burlington, Vermont.
33. Winterbauer, N. E., **Todd, T. P.**, & Bouton, M. E. (October, 2009). Predictability of the temporal relationship between CS and US affects the distribution of conditioned responding. Poster presented at the meeting of the Pavlovian Society, Burlington, Vermont.
34. **Todd, T. P.**, Winterbauer, N. E. & Bouton, M. E. (October, 2009). Contrasting asymmetries in within-trial temporal discrimination learning. Poster presented at the meeting of the Pavlovian Society, Burlington, Vermont.
35. **Todd, T. P.**, Winterbauer, N. E., & Bouton, M. E. (2009. April). A peculiar asymmetry in how animals discriminate between different temporal intervals. Poster presented at the Graduate Student Research Conference, University of Vermont, Burlington, Vermont.
36. **Todd, T. P.**, & Williams, D. A. (2008, March). Excitation and inhibition within the duration of a conditioned stimulus. Poster presented at the meeting of the Eastern Psychological Association, Boston, Massachusetts.

AD HOC REVIEWER

Appetite, Behavioral Brain Research, Behavioral Processes, Behavioral Neuroscience, Journal of the Experimental Analysis of Behavior, Journal of Experimental Psychology: Animal Learning and Cognition, Journal of Visualized Experiments, Institute for Laboratory Animal Research, Learning & Memory, Learning and Motivation, Learning & Behavior, Neurobiology of Learning & Memory, Psychonomic Bulletin and Review, Psychopharmacology, Quarterly Journal of Experimental Psychology, The Psychological Record

SOCIETY MEMBERSHIPS

- Yuen, M. M. (2019). Directionality of theta-band oscillations between the hippocampus and ventral striatum. (member).
- Jiang, Y. M. (2017). Cortical substrates of remote fear memory. (member).