

Kenneth R. Light, Lecturer

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Degrees in Higher Education

Rutgers University – Attended 2003 to 2009 in Biopsychology/Behavioral Neuroscience
PhD Awarded 2009, advisor Louis D. Matzel, dissertation title “Working memory training increases general cognitive abilities in CD-1 outbred mice”

M.S. awarded 2006

Ramapo College – Attended 2000 to 2003 in Psychology

B.A. Awarded 2003

Lafayette College – Attended 1997 – 1999

Professional Experience in Higher Education

9/11 – present	Lecturer, Barnard College
7/16 – present	Research Scientist (part-time), Balsam Lab
11/09 – 3/11	Post-doctoral associate, Rutgers University
9/06 – 12/06, 9/07 - 12/07	Part Time Lecturer, Rutgers University
9/03 – 10/09	Teaching Assistant, Rutgers University

Academic and Professional Honors

2017 and 2018	Emily Gregory Award Nomination	
2007	Excellence in Teaching by a Graduate Student	Rutgers University
2003	B.A. Summa Cum Laude	Ramapo College
2003	Outstanding Student in Psychology	Ramapo College

Current Membership in Professional Societies

Eastern Psychological Association
Pavlovian Society
The Society for Neuroscience

Courses Taught

Psychology of Learning	Barnard College
Psychology of Learning Lab	Barnard College
Introduction to Research Methods in Psychology Lab	Barnard College
Introduction to Psychology Lab	Barnard College
Independent Study	Barnard College
Quantitative Methods in Psychology	Rutgers University
Quantitative Methods in Psychology Recitation	Rutgers University
Conditioning and Learning	Rutgers University

Publications**Journal Articles**

*indicates Barnard College/Columbia University student

- Light, K. R., Cotten, B.C., *Malekan, T., Gallistel, C. R., & Balsam, P.B. Evidence for a mixed timing and counting strategy in mice performing a Mechner counting task. *Frontiers in Behavioral Neuroscience, in review (final edits submitted)*
- Matzel, L.D., Kolata, S., Light, K. & Sauce, B. (2017). The tendency for social submission predicts superior cognitive performance in previously isolated male mice. *Behavioral Processes, 134*, 12-21.
- Wass, C., Denman-Brice, A., Rios, C., Light, K.R., Kolata, S.& Matzel, L.D., (2012) Covariation of learning and “reasoning” abilities in mice: evolutionary conservation of the operations of intelligence. *J.Exp.Psych: Animal Behav. Processes, 38(2)*, 109-124.
- Matzel, L.D., Light, K.R., Wass, C., Colas-Zelin, D., Denman-Brice, A., Waddel, A. & Kolata, S. (2011). Longitudinal attention engagement rescues mice from age-related cognitive declines and cognitive inflexibility. *Learning and Memory, 18*, 345-356.
- Light, K.R., Grossman, H., Kolata, S. & Matzel, L.D. (2011). General learning ability regulates exploration through its influence on rate of habituation. *Behavioral Brain Research, 223(2)*, 297-309.
- Kolata, S., Light, K., Wass, C. Colas-Zelin, D., Roy, D. & Matzel, L.D. (2010). A dopaminergic gene cluster in the prefrontal cortex predicts performance indicative of general intelligence in genetically heterogeneous mice. *PLoS One 5(11)*: e14036, doi:10.1371/journal.pone.0014036.
- Light, K., Kolata, S., Wass, C., Denman-Brice, A., Zagalsky, R. & Matzel, L.D. (2010). Working memory training promotes general cognitive abilities in genetically heterogeneous mice. *Current Biology, 8(27)*, 777-782.
- Matzel, L.D., Wass, C., Kolata, S., Light, K. & Colas, D. (2009). Age-related impairments of new memories reflect failures of learning, not retention. *Learning and Memory, 16*, 590-594.
- Ramos, J.W., Townsend, D.A., Piarulli, D., Kolata, S., Light, K., Hale, G. & Matzel, L.D. (2009). Deletion of PEA-15 in mice is associated with specific impairments of spatial learning abilities. *BMC Neuroscience, 10*: 134.
- Matzel, L.D., Grossman, H., Light, K., Townsend, D., & Kolata, S. (2008). Age-related declines in general cognitive abilities of Balb/C mice are associated with disparities in working memory, body weight, and general activity. *Learning and Memory, 15*, 733-746.

- Light, K., Kolata, S., Hale, G., Matzel, L.D. (2008) Up-Regulation of exploratory tendencies does not enhance general learning abilities in juvenile or young-adult outbred mice. *Neurobiology of Learning and Memory*, 90(2), 317-329.
- Kolata, S., Wu, J., Light, K., Schachner, M., & Matzel, L.D. (2008) Impaired working memory duration but normal learning abilities in mice conditionally deficient in the adhesion molecule close homologue of L1. *J. Neuroscience*, 28(50), 13505-13510.
- Grossman, H., Hale, G., Light, K., Kolata, S., Townsend, D. A., Goldfarb, Y., Kusnecov, A., Matzel, L. D. (2007). Pharmacological modulation of stress reactivity dissociates general learning ability from the propensity for exploration. *Behavioral Neuroscience*, 121(5), 949-964.
- Kolata, S., Light, K., Grossman, H., Hale, G., Matzel, L.D. (2007) Selective attention is a primary determinant of the relationship between working memory and general learning ability in outbred mice. *Learning and Memory*, 22, 22-28.
- Matzel, L. D., Townsend, D. A., Han, Y. R., Grossman, H., Hale, G., Zappulla, M., Light, K. and Kolata, S.(2006) Exploration in outbred mice covaries with general learning abilities irrespective of stress reactivity, emotionality, and physical attributes. *Neurobiology of Learning and Memory*, 84(3), 228-240.
- Kolata, S., Light, K., Townsend, D. A., Hale, G., Grossman, H. C. and Matzel, L.D.(2005). Variations in working memory capacity predict individual differences in general learning abilities among genetically diverse mice. *Neurobiology of Learning and Memory*, 84(3), 241-246.

Conference Presentations and Lectures

- Cotten, B., Light, K., *Tek, Z., Winiger, V., *Wanar, A., *Bailey, M. R., Kalmbach, A., Simpson, E. H. & Balsam, P.B. *Insular cortex, prelimbic cortex, and infralimbic cortex activity is implicated in appetitive inhibitory conditioning*. Poster presented at the meeting of Society for Neuroscience, Washington, D.C., November 2017.
- Light, K. R., *Tek, Z., Bowler, R., Winiger, V., *Wanar, A., Cotton, B., *Bailey, M. R., Kalmbach, A., Simpson, E.H. & Balsam P. B. *Insular cortex, prelimbic cortex, and infralimbic cortex activity is implicated in appetitive inhibitory conditioning*. Poster presented at the meeting of Society for Neuroscience, Washington, D.C., November 2017.
- *Austin, A. & Light, K. R. *Recognition of gender/occupation bias*. Poster presented at the Barnard College Psychology Spring Research Festival, New York, NY, April 2016.
- *Weiner, S., *Weill, A., *Schulz, A. & Light, K. R. *Factors influencing memory priority for a gendered list*. Poster presented at the Barnard College Psychology Spring Research Festival, New York, NY, April 2016.

- *Weiner, S., *Weill, A., *Schulz, A. & Light, K. R. *Factors influencing memory priority for a gendered list*. Poster presented at the meeting of the Eastern Psychological Association, New York, NY, March 2016.
- Light, K. & Shumyatsky, G.P. *Post-training intra-cerebroventricular injections of grp dissociate cue from context in pavlovian fear conditioning*. Poster presented at the meeting of the Molecular and Cellular Cognition Society, Washington, D.C., November 2011.
- Light, K., Martel, G., Uchida, S. and Shumyatsky, G.P. *Social and flexibility deficits in mouse models of ASD based on amygdale-enriched genes*. Poster presented at the Governor's Council for Autism, Atlantic City, NJ, March, 2011.
- Light, K., Martel, G., Nishi, A. & Shumyatsky, G.P. *The role of the GRP/GRPR system in the expression of fear memory*. Poster presented at the Pioneers in Endocrinology workshop, Piscataway, NJ September, 2010.
- Light, K., Kolata, S., Grossman, H. C., Zagalsky, R., and Matzel, L.D. *Selective attention practice improves general learning abilities in CD-1 outbred mice*. Paper presented at the Meeting of the Society for Neuroscience, Washington, D.C., November, 2008.
- Light, K., Kolata, S., Townsend, D.A., Grossman, H.C., Hale, G. and Matzel, L.D. *Toward a deeper understanding of intelligence: development of an animal model*. Ramapo College, Mahwah, NJ, May, 2008.
- Light, K., Kolata, S., Townsend, D.A., G., Grossman, H. and Matzel, L. D. *Age-related declines in general cognitive abilities are related to variations in working memory span, capacity and body weight in genetically homogenous mice*. Paper presented at the Meeting of the Eastern Psychological Association, Boston, MA, March, 2008.
- Light, K., Kolata, S., Hale, G., Grossman, H. and Matzel, L. D. *Adaptation to novelty in pre- adolescent and adult outbred mice promotes exploration but does not improve general learning abilities*. Poster presented at the Meeting of the Society for Neuroscience, Atlanta, GA, October, 2006.
- Light, K., Kolata, S., Hale, G., Grossman, H. and Matzel, L. D. *Exposure to novelty in pre- adolescent and adult outbred mice promotes exploration but does not improve general learning abilities* Poster presented at the Meeting of the Pavlovian Society, Philadelphia, PA, September, 2006.
- Grossman, H., Light, K.*, Zappulla, M., Gaudios, F., Kolata, S., Townsend, D. A., Hale, G., and Matzel, L. D. *The role of information processing rate in the relationship between general learning abilities and exploratory tendencies*

among genetically diverse mice. Poster presented at the Meeting of the Society for Neuroscience, Washington, D.C., November, 2005.

Light, K., Kolata, S., Townsend, D.A., Grossman, H.C. and Matzel, L.D. *Effects of adaptation to novelty on general learning abilities in outbred mice.* Rutgers University, Piscataway, NJ, May, 2005

Light, K., Kolata, S., Hale, G., Grossman, H., Townsend, D. A., and Matzel, L. D., *Effects of adaptation to novelty on exploration and general learning in outbred mice.* Poster presented at the Meeting of the Pavlovian Society, Baltimore, MD, September, 2004.

Light, K., Kolata, S., Hale, G., Grossman, H., Townsend, D. A. and Matzel, L. D. *Effects of adaptation to novelty on general learning abilities in outbred mice.* Poster presented at the meeting of the Society for Neuroscience, San Diego, CA, October, 2004.

Light, K., Kolata, S., Grossman, H., Townsend, D. A., Hale, G. and Matzel, L. D., *Exploration in outbred mice covaries with general learning abilities irrespective of stress reactivity, emotionality, and physical attributes.* Paper presented at the Meeting of the Eastern Psychological Association, Washington, D.C., March, 2004.

Light, K. & Cataliotti, J. *Variations in White's effect do not occur under stereoscopic vision.* Poster presented at the Meeting of the Eastern Psychological Association, Baltimore, MD, March, 2003.

Service to the College/University

2012 – Present	Introduction to Psychology Research Subject Pool Committee
2019 - 2020	Psychology Curriculum Committee
2014 - 2015	Psychology Self-assessment Committee
2013 - 2014	Psychology Curriculum Committee