

Itamar Lerner

CURRICULUM VITAE

University of Texas at San Antonio, Department of Psychology

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Lab Website: <https://lerner.sleepmemory.lab.utsa.edu/>

Personal website: <http://itamarlerner.com>

EDUCATION

The Hebrew University of Jerusalem, Jerusalem, IL

Doctor of Philosophy in Brain Sciences: Computation and Information Processing, 2013

Advisors: Dr. Shlomo Bentin, Dr. Oren Shriki

Thesis: *Semantic Priming in Typical and Schizophrenics Individuals: An Attractor Network Model with Latching Dynamics*

The Hebrew University of Jerusalem, Jerusalem, IL

Bachelor of Science in Psychobiology, 2002

Magna Cum Laude

ACADEMIC APPOINTMENTS

Assistant Professor

January 2020 – Present

University of Texas at San Antonio

Department of Psychology

Research Associate

December 2016 – December 2019

Rutgers University

Center for Molecular and Behavioral Neuroscience

Research Director: Dr. Mark A. Gluck

Postdoctoral Fellow

February 2013 – December 2016

Rutgers University

Center for Molecular and Behavioral Neuroscience

Research Director: Dr. Mark A. Gluck

FUNDED RESEARCH GRANTS

2025 - 2026

Office of Research INTRA Award (Lerner, PI)

\$5,000

The Relationship between Real-Life Stress and Physiological Measurements of Sleep and Physical Activity

2024 – 2024	NSF/REU Supplement 2317706 (Lerner, Co-PI; 100%)	\$16,000
	EFRI BRAID: Efficient Learning of Spatiotemporal Regularities in Humans and Machines through Temporal Scaffolding	
2023 – 2028	NSF/CAREER 2237419 (Lerner, PI)	\$725,000
	CAREER: Longitudinal study of the effects of baseline sleep on emotional regulation in the context of real-life stressors	
2023 – 2027	NSF/EFRI 2317706 (Lerner, Co-PI; 20%)	\$2,000,000
	EFRI BRAID: Efficient Learning of Spatiotemporal Regularities in Humans and Machines through Temporal Scaffolding	
2023 – 2027	NSF/ExpandAI 2332744 (Lerner, Co-I)	\$2,800,000
	PARTNER: Neuro-Inspired AI for the Edge at UTSA (NAIAD)	
2021 – 2022	SWCOEH NIH/NIOSH 5T42OH008421 (Lerner, PI)	\$19,947
	Investigating Objective Measures of Habitual Pre-Trauma Sleep as Potential Risk Factors for Future PTSD	
2021	HCaP Jump-Start Grant (Lerner, PI)	\$4,975
	The Effects of Sleep on the Formation of False Composite Memories	
2019 – 2021	NIH/NIMH 1R21MH119020-01A1 (Lerner, Co-PI; 32%)	\$442,094
	Enhancing the Efficiency of Non-REM Sleep Temporal Dynamics to Improve Insight Learning	
2015 – 2019	NSF/BCS 1461009 (Lerner, Co-PI; 100%)	\$586,326
	Neuro-cognitive Studies of Sleep and the Generalization of Emotional Learning and Threat Detection.	
2016 – 2018	DoD W911NF-16-C-0018 (Lerner, Co-PI; 100%)	\$465,435
	IMPACTS: Improving Memory Performance by Augmenting Consolidation with Transcranial Stimulation.	
2012 – 2016	NSF/SHB:EXP 1231515 *	\$552,307
	Long-Term Mobile Monitoring and Analysis of Sleep-Cognition Relationship.	

* Due to my non-faculty status at Rutgers during submission of this grant, I was not officially listed as PI or Co-PI. However, I was the effective Co-PI with respect to: (1) Co-authoring the proposal, (2) Heading the ongoing research, (3) Authorizing distribution of funds, and (4) dealing with cognizant agency program officers.

AWARDS AND HONORS

- 2023** **Faculty Early Career Development Award**
National Science Foundation
- 2020** **Rising STARS award**
Competitive award for new faculty recruitment at The University of Texas
- 2010** **Israel Foundation Trustees (IFT)**
Competitive grant for PhD Students.
- 2010** **Robert J. Glushko & Pamela Samuelson Student Travel Grant**
For quality of submission to the 32nd Annual Conference of the Cognitive Science Society, Portland, Oregon.
- 2007-2010** **Rector's Fellowship**
For excellence in Ph.D studies, the Hebrew university of Jerusalem.

PUBLICATIONS

** denotes contribution of a student under my direct mentorship*

REFEREED JOURNAL PUBLICATIONS

- *Larios, E., *Woolridge, J., *Pena, A., *Menchaca, O., *Phelps, J., & **Lerner, I.** (2026). The Influence of Baseline Sleep on Responses to New Stressors: A systematic Review. *Sleep Medicine*, 108835.
<https://doi.org/10.1016/j.sleep.2026.108835>
- Lerner, I.**, & *Hamm, S. (2025). Sleep Promotes Illusionary Word Compositions, a Distinct Form of False Memory. *Neurobiology of Learning and Memory*, 223, 108129.
<https://doi.org/10.1016/j.nlm.2025.108129>
- *Larios, E., & **Lerner, I.** (2025) Habitual rapid eye movement sleep predicts changes in test-anxiety levels weeks in advance. *Journal of Sleep Research*, e14298
<https://doi.org/10.1111/jsr.14298>
- Brown D. M. Y., **Lerner, I.**, Cairney, J. & Kwan, M. Y. W. (2024). Independent and joint associations of physical activity and sleep on mental health among 220,324 adults in 214 countries. *International Journal of Behavioral Medicine*, 32, 180-194.
<https://doi.org/10.1007/s12529-024-10280-8>
- *Vickrey, B.C., & **Lerner, I.** (2023). Overnight Exposure to Pink Noise Could Jeopardize Sleep-Dependent Insight and Pattern Detection. *Frontiers in human Neuroscience* 17:1302836.
doi: 10.3389/fnhum.2023.1302836

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10722168/>

- Lerner, I.,** Guijarro-Fuentes, P., Filippi, R., Li F., & Schwieter, J.W. (2023). Editorial: New Ideas in Language Sciences: Language Acquisition. *Frontiers in Psychology, 14*: 1250307. doi.org/10.3389/fpsyg.2023.1250307
<https://www.frontiersin.org/articles/10.3389/fpsyg.2023.1250307/full>
- *Wood, E., *Westphal, J.K & **Lerner I.** (2023). Re-evaluating Two Popular EEG-based Mobile Sleep Monitoring Devices for Home Use. *Journal of Sleep Research, e13824*.
<https://doi.org/10.1111/jsr.13824>
- Lerner I.** (2023). A Peculiar Phenomenon and its Potential Explanation in the ATP Tennis Tour Finals for Singles. *Journal of Quantitative Analysis in Sports, 19(1)*, 27-36.
<https://doi.org/10.1515/jqas-2022-0043>
- Lerner, I.,** Pilly, P.K., & Moustafa, A.A. (2022). Editorial: Mechanisms contributing to sleep-dependent memory generalization. *Frontiers in Neuroscience, 16*:1106577. doi:10.3389/fnins.2022.1106577
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9808383/>
- Lerner, I.,** & Gluck, M.A. (2022). Sleep Facilitates Extraction of Temporal Regularities with Varying Timescales. *Frontiers in Behavioral Neuroscience, 16*:847803. doi:10.3389/fnbeh.2022.847803
<https://www.frontiersin.org/articles/10.3389/fnbeh.2022.847803/full>
- Lerner, I.,** *Lupkin, S.M., *Tsai, A. & Gluck, M.A. (2021). Sleep to Remember, Sleep to Forget: Opposite Effects of Rapid Eye Movement Sleep on Recall and Discrimination of Fear Memories. *Neurobiology of Learning and Memory, 180*, 107413.
<https://www.sciencedirect.com/science/article/abs/pii/S1074742721000356?via%3Dihub>
- Pilly, P.K., Skorheim, S.W, Hubbard, R.J., Ketz, N.A., Roach, S.M., **Lerner, I.**, Jones, A.P., Bradley, R., Bryant, N.B., Hartholt, A., Mullins, T.S., Choe, J., Clark, V.P., Howard, M.D. (2020). One-Shot Tagging During Wake and Cueing During Sleep With Spatiotemporal Patterns of Transcranial Electrical Stimulation Can Boost Long-Term Metamemory of Individual Episodes in Humans. *Frontiers in Neuroscience, 16*:1416. doi:10.3389/fnins.2019.01416
<https://www.frontiersin.org/articles/10.3389/fnins.2019.01416/full>
- Lerner, I.,** *Kerbaj, T., & Gluck, M.A. (2019). When Sleep-Dependent Gist Extraction Goes Awry: False Composite Memories are Facilitated by Slow Wave Sleep. In A.K. Goel, C.M. Seifert, & C. Freksa (Eds.), *Proceedings of the 41st Annual Conference of the Cognitive Science Society* (pp. 2119-2124). Montreal, QB: Cognitive Science Society.
<https://mindmodeling.org/cogsci2019/papers/0370/0370.pdf>

- Lerner, I., & Gluck, M.A.** (2019). Sleep and the Extraction of Hidden Regularities: A Systematic Review and the Importance of Temporal Rules. *Sleep Medicine Reviews*, 47, 39-50.
<https://doi.org/10.1016/j.smrv.2019.05.00>
- Lerner, I.,** Ketz, N.A., Jones, A.P., Bryant, N.B., Robert, B., Skorheim, S.W., Hartholt, A., Rizzo, A.S., Gluck, M.A., Clark, V.P., Pilly, P.K. (2019). Transcranial Current Stimulation During Sleep Facilitates Insight into Temporal Rules, but does not Consolidate Memories of Individual Sequential Experiences. *Scientific Reports*, 9, 1516. doi: 10.1038/s41598-018-36107-7
<https://www.nature.com/articles/s41598-018-36107-7>
- Lerner, I.,** Sojitra, R., Gluck, M.A. (2018). How age affects reinforcement learning. *Aging (Albany NY)*. 10 (12), 3630-3631.
<https://doi.org/10.18632/aging.101649>
- Lerner, I. & Gluck, M.A.** (2018). Individual Differences in Slow-Wave-Sleep Predict Acquisition of Full Cognitive Maps. *Frontiers in Human Neuroscience* 12, 404. doi:10.3389/fnhum.2018.00404
<https://www.frontiersin.org/articles/10.3389/fnhum.2018.00404/full>
- Sojitra, R. †, **Lerner, I. †**, Petok, J.R., & Gluck, M.A. (2018). Age Affects Reinforcement Learning Through Dopamine-Based Learning Imbalance and High Decision Noise – Not Through Parkinsonian Mechanisms. *Neurobiology of Aging*. 68, 102-113.
<https://www.sciencedirect.com/science/article/pii/S0197458018301283>
† *Authors contributed equally to this manuscript*
- Lerner, I.,** *Lupkin, S.M., Sinha, N., *Tsai, A., & Gluck, M.A. (2017). Baseline Levels of Rapid-eye-Movement Sleep May Protect Against Excessive Activity in Fear-Related Neural Circuits. *Journal of Neuroscience*, 37 (46), 11233-11244.
<http://www.jneurosci.org/content/jneuro/37/46/11233.full.pdf>
➤ *Paper chosen for press promotion by the Society for Neuroscience and featured in Time, the Atlantic, Huffington Post, CTV and others. See Selected Media Coverage.*
- Lerner, I.** (2017). Unsupervised Temporal Learning during Sleep Supports Insight. *Conference on Cognitive Computational Neuroscience (CCN) 2017*. Archived at:
<https://www2.securecms.com/CCNeuro/docs-0/5928daeb68ed3f7a4e8a2571.pdf>
- Lerner, I.,** *Lupkin, S.M., Corter, J.E., Peters, S.E., *Cannella, L., & Gluck, M.A. (2016). The influence of sleep on emotional and cognitive processing is primarily trait- (but not state-) dependent. *Neurobiology of Learning and Memory*, 134, 275-286.
<http://www.sciencedirect.com/science/article/pii/S1074742716301320>
- Lerner, I.,** Armstrong, B.C., & Frost, R. (2014). What can we learn from learning models about sensitivity to letter-order in visual word recognition? *Journal of Memory and Language*, 77, 4-58.

<http://www.sciencedirect.com/science/article/pii/S0749596X14001041>

Lerner, I., Bentin, S., & Shriki, O. (2014). Integrating the Automatic and the Controlled: Strategies in Semantic Priming in an Attractor Network with Latching Dynamics. *Cognitive Science*, 38(8), 1562-1603.

<http://onlinelibrary.wiley.com/doi/10.1111/cogs.12133/full>

Lerner, I., & Shriki, O. (2014). Internally- and externally-driven network transitions as a basis for automatic and strategic processes in semantic priming: theory and experimental validation. *Frontiers in Psychology* 5, 314. doi: 10.3389/fpsyg.2014.00314

<https://www.frontiersin.org/articles/10.3389/fpsyg.2014.00314/full>

Lerner, I., Bentin, S., & Shriki, O. (2012). Spreading Activation in an Attractor Network with Latching Dynamics: Automatic Semantic Priming Revisited. *Cognitive Science*, 36 (8), 1339-1382.

<http://onlinelibrary.wiley.com/doi/10.1111/cogs.12007/abstract>

Lerner, I., Bentin, S., & Shriki, O. (2012). Excessive Attractor Instability Accounts for Semantic Priming in Schizophrenia. *PLoS One*, 7 (7): e40663. doi:10.1371/journal.pone.0040663

<http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0040663>

Lerner, I., Bentin, S., & Shriki, O. (2010). Automatic and controlled processes in semantic priming: an attractor neural network model with latching dynamics. In S. Ohlsson & R. Catrambone (Eds.) *Proceedings of the 32rd Annual Conference of the Cognitive Science Society*, (pp 1112-1117). Mahwah, NJ: Lawrence Erlbaum.

<https://escholarship.org/uc/item/6b83k8mt>

BOOK CHAPTERS

Lerner, I. (2017). Sleep is for the brain: Contemporary computational approaches in the study of sleep and memory and a Novel ‘Temporal Scaffolding’ Hypothesis. In: A. Moustafa (Ed), *Computational Models of Brain and Behavior* (pp. 245-256). Hoboken, NJ: Wiley.

<https://onlinelibrary.wiley.com/doi/abs/10.1002/9781119159193.ch18>

MANUSCRIPTS IN PREPERATION OR SUBMITTED

Soures, N., Gonzales, M., Geethaikrishnan, A., **Lerner, I.**, & Kudithipudi, D. (*Under Review*). Learning Long-Range Temporal Dependencies Through Sleep-Inspired Acceleration.

He, Q., Zhang, J., **Lerner, I.**, Wilckens, K.A. (*Under Review*). Linear and Nonlinear Age Modulations on Associations Between Habitual Sleep Duration and Cognitive Function.

Dabool, H., Alashwal, H., Van Zyl, T., Van Der Haar, D., S. C., Deldari, S., Salim, F.D., **Lerner, I.**, Moustafa, A.A. (*Under Review*). Overcoming Catastrophic Interference: Strategies for Continuous Learning in Neural Networks.

Hodges T.J., **Lerner, I.**, *Larios, E., & Moore, B.A. (*Under Review*). Resilience and Mental Health of College Students: Recovery Cognitions Predicted End-of-Semester Depressive Symptoms.

ORAL PRESENTATIONS & INVITED TALKS

*Miranda Gonzales, **Lerner, I.** *The Effect of Sleep on Temporal Pattern Detection*. Invited talk at the Dallas & Austin Area 2025 Memory Meeting (DAAMM), Austin, TX, October 2025.

Lerner, I. *The Effect of Sleep on False Composite Memories*. Invited talk at the Dallas & Austin Area 2024 Memory Meeting (DAAMM), Waco, TX, October 2024.

Lerner, I. *Longitudinal study of the effects of baseline sleep on emotional regulation in the context of real-life stressor*. Invited talk at the 2023 Annual Conference of the Memory Disorders Research Society (MDRS). Los-Angeles, CA, September 2023.

Lerner, I. *Memory Replay during Sleep and its Potential Role in Unsupervised Learning of Temporal Regularities*. Invited talk at the Neuro-Inspired computing Elements (NICE) Conference. San-Antonio, TX, April 2023.

Lerner I. *Sleep and memory consolidation: the importance of long-term sleep patterns and how sleep contributes to insight*. Invited talk at Advances in Brain Sciences 2018: Glimpses of the Future Symposium. Jerusalem, Israel, October 2018.

Lerner, I., *Lupkin, S.M., Sinha, N., *Tsai, A., & Gluck, M.A. *Baseline levels of Rapid-Eye-Movement sleep may protect against excessive fear learning*. Oral presentation at the 2018 International Conference on Learning and Memory, Huntington Beach, CA, April, 2018.

Lerner I., Sojitra, R., Petok, J.R., & Gluck, M.A. *Reinforcement learning in healthy aging: Similar behavior to Parkinson's disease, opposite mechanisms?* Oral presentation at 47th Annual Meeting of the Society for Neuroscience (SfN), Washington, DC, November 2017.

Lerner I., *Effects of sleep on insight learning is explained by a 'temporal scaffolding' mechanism based on compressed memory-replay*. Invited talk at the Park City Conference on the Neurobiology of Learning and Memory, Park City, UT, January 2017.

Lerner I. *Novel Approaches to Study Long-Term Sleep Effects and Sleep-Dependent Insight Learning*. Invited talk at the DARPA Sleep Workshop, Arlington, VA, April 2015.

Lerner I., Armstrong B.C., Frost R. *Letter-Position Sensitivity is Modulated by the Linguistic Environment: Evidence From an Elementary Learning Model*. Oral presentation at the 54th Annual meeting of the Psychonomic Society, Toronto, Ontario, Canada, November 2013.

Lerner I., Bentin S., Shriki O. *Automatic and controlled processes in semantic priming: an attractor neural network model with latching dynamics*. Oral presentation at the 32nd Annual Conference of the Cognitive Science Society. Portland, USA, August, 2010.

POSTERS AT CONFERENCE PROCEEDINGS

International conferences

Lerner, I. *Beyond the DRM Paradigm: Sleep Facilitates False Memories of Composite Words (Accepted)*. The 40th Annual Meeting of the Associated Professional Sleep Societies (APSS), Baltimore, MD, June 2026.

*Larios, E., & **Lerner, I.** *Subjective Measures of Habitual Sleep Outperform Objective Measures in Predicting Prospective Stress Responses in Emergency Responders (Accepted)*. The 40th Annual Meeting of the Associated Professional Sleep Societies (APSS), Baltimore, MD, June 2026.

Brown, D. M. Y., Holesovsky, C. D., Yang, C. H., Aggarwal, A., Meca, A., **Lerner, I.**, Vitevitch, M. S. & Forbush, K. T. *Temporal Associations Between Waking Movement Behaviors and Dimensions of Negative Affect in Hispanic College Students with Obesity: A Network Analysis Using Compositional Data. (Accepted)*. The 47th Annual Meeting of the Society of Behavioral Medicine, Chicago, IL, April 2026.

Holesovsky, C.D., Burkart, S., St. Laurent, C.W., Larios, E., **Lerner, I.**, Meca, M., & Brown, D. M. Y. *Daily Associations Between 24-Hour Movement Behaviors and Negative Affect in Hispanic College Students with Obesity: A Bayesian Compositional Analysis (Accepted)*. The 47th Annual Meeting of the Society of Behavioral Medicine, Chicago, IL, April 2026.

*Larios, E., & **Lerner, I.** *Habitual Sleep Prior to Enrollment Predicts Future Stress-Related Measures in Emergency Responder*. The 2025 Annual Meeting of the Society for Neuroscience (SfN), Washington, DC, November 2025.

*Gonzales, M., & **Lerner, I.** *Sleep-dependent memory consolidation in a pilot nap study contributes to the detection of hidden temporal regularities within a community-based pattern*. The 2025 Annual Meeting of the Society for Neuroscience (SfN), Washington, DC, November 2025.

* Woolridge, J., Kunwar, A., & **Lerner, I.** *Does the predictability of threat cues influence REM sleep's effect on fear learning?* The 2025 Annual Meeting of the Society for Neuroscience (SfN), Washington, DC, November 2025.

*Westphal, J.K., *Hamm, S.C., & **Lerner, I.** *Sleep promotes assimilation of separately encoded events into false composite memories*. The 2023 International Conference on Learning and Memory, Huntington Beach, CA, April, 2023.

*Wood, E., *Westphal, J.K., & **Lerner, I.** *Comparison of Two Home Sleep Monitors Designed for Self-Use.* ICSDM 2022: International Conference on Sleep Disorders and Medicine. San-Francisco, September 2022.

Lerner I., Gluck, M.A. *When Sleep-Dependent Gist Extraction Goes Awry: False Composite Memories are Facilitated by Slow Wave Sleep.* The 41st Annual Conference of the Cognitive Science Society. Montreal, Canada, July, 2019.

Lerner I. *Unsupervised Temporal Learning During Sleep Supports Insight.* Cognitive Computational Neuroscience (CCN) 2017. New-York, NY, September 2017.

*Lupkin, S.M., **Lerner, I.**, Sinha, N., *Tsai, A., & Gluck, A.M. *Trait-like variations in rapid-eye-movement sleep modulate hippocampus-amygdala connectivity during fear conditioning.* The 2016 Annual Meeting of the Pavlovian Society, Jersey City, NJ, October 2016.

Sojitra, R., Petok, J.R., Gluck, M.A., & **Lerner, I.** *Reinforcement learning model reveals adult age group differences in cognitive strategies for probabilistic categorization.* The 15th Neural Computation and Psychology Workshop, Philadelphia, PA, August 2016.

*Lupkin, S.M., **Lerner, I.**, *Tsai, A., Gluck, M.A. *Sleep Facilitates Rule Learning through "Temporal Scaffolding."* The 2016 Annual Meeting of the Cognitive Neuroscience Society (CNS), New York, NY, April 2016.

Lerner, I., Peters, S.E., *Lupkin S.M., *Cannella, L., Gluck, M.A. *Trait-like individuals differences in sleep affect cognitive and emotional processing.* The 29th Annual Meeting of the Associated Professional Sleep Societies (APSS), Seattle, WA, June 2015.

Lerner, I., *Lupkin S.M., Peters, S.E., *Cannella, L., Gluck, M.A. *Consumer-based mobile sleep monitoring devices reveal trait-like effects of sleep on the evaluation of facial expressions in a multiple-night study.* The 2015 Annual Convention of the Association for Psychological Science (APS), New York, NY, May 2015.

Lerner, I., & Gluck, M.A. *A neurocomputational model of how memory replay during slow-wave sleep inspires insight.* The 44th Annual Meeting of the Society for Neuroscience (SfN), Washington, DC, November 2014.

*Cannella, L., **Lerner, I.**, *Ohioma, D., & Gluck, M.A. *Sleep Inspires Temporal Insight but not Categorical Insight.* The 44th Annual Meeting of the Society for Neuroscience (SfN), Washington, DC, November 2014.

Lerner, I., & Gluck, M.A. (2014). *Sleep facilitates memory by providing 'temporal scaffolding' of experience: A network model.* The 28th Annual Meeting of the Associated Professional Sleep Societies (APSS), Minneapolis, MN, June 2014.

Other presentations

- *Hamm, S.C. & **Lerner, I.** *The Effect of Slow-Wave Sleep on Pattern Recognition and the Formation of False Composite Memories.* Poster presented at the UTSA Department of Psychology Student Research Symposium Program. San-Antonio, May 2022.
- *Larios, E. & **Lerner, I.** *Pre-existing Sleep Patterns and their Effect on Stress.* Poster presented at the UTSA Department of Psychology Student Research Symposium Program. San-Antonio, May 2022.
- *Wood, E., *Westphal, J., & **Lerner, I.** *Comparison of Two Home Sleep Monitors Designed for Self Use.* Poster presented at the UTSA Department of Psychology Student Research Symposium Program. San-Antonio, May 2022.
- Lerner I.**, Sojitra, R., Petok, J.R., & Gluck, M.A. *Reinforcement learning in healthy aging: Similar behavior to Parkinson's disease, opposite mechanisms?* Oral Presentation at the Neuroscience Mini-Symposium at the Center for Molecular and Behavioral Neuroscience, Rutgers University. Newark, NJ, November 2017.
- Lerner I.** *Semantic priming in Schizophrenia: An attractor network model with attractor instability.* Oral Presentation at the Annual meeting of the Interdisciplinary Center for Neural Computation. Ein-Gedi, Israel, Januray 2011.
- Lerner I.** *Automatic and Controlled Processes in Semantic Priming: An Attractor Neural Network Model.* Oral Presentation at the weekly colloquium of the Psychology department at the Hebrew University. Jerusalem, Israel, December 2009.
- Lerner I.**, Bentin S., Shriki O. *Aberrant Semantic Priming in Schizophrenia: A network model with accelerated latching dynamics.* Poster presented at the Annual meeting of the Interdisciplinary Center for Neural Computation. Ein-Gedi, Israel, January 2009.

TEACHING EXPERIENCE

COURSES TAUGHT

University of Texas at San Antonio, San-Antonio, TX
Lecturer, “Human cognition” graduate course. Spring 2026.

University of Texas at San Antonio, San-Antonio, TX
Lecturer, “Advanced Topics: The Effects of Sleep on Memory and Learning” undergraduate course. Fall 2024 – present.

University of Texas at San Antonio, San-Antonio, TX
Lecturer, “Advanced Topics: Applied Cognitive Psychology” graduate course. Fall 2022.

University of Texas at San Antonio, San-Antonio, TX

Lecturer, “Cognitive Psychology” undergraduate course. Spring 2020 – present.

Center for Molecular and Behavioral Neuroscience, Rutgers University, Newark ,NJ

Lecturer, “Foundations in Neuroscience” graduate course, April 2018.

Center for Molecular and Behavioral Neuroscience, Rutgers University, Newark ,NJ

Guest Lecturer. “Critical Thinking” graduate course, March 2016.

Center for Molecular and Behavioral Neuroscience, Rutgers University, Newark ,NJ

Lecturer. “Learning and Memory” graduate course, May 2013.

Center for Brain Sciences (ELSC), The Hebrew University of Jerusalem, Jerusalem, IL

Lecturer, “Cognitive Psychology” graduate course. Fall 2009 – Spring 2012.

Center for Brain Sciences (ELSC), The Hebrew University of Jerusalem, Jerusalem, IL

Teaching Assistant. “Computation and Cognition” undergraduate course. Fall 2005 – Spring 2009.

Department of Cognitive Sciences, The Hebrew University of Jerusalem, Jerusalem, IL

Lecturer, “Introduction to Matlab” undergraduate course. Fall 2005.

Center for Brain Sciences (ELSC), The Hebrew University of Jerusalem, Jerusalem, IL

Teaching Assistant, “Theory of Neural Networks 2” graduate course. Fall 2004 - Spring 2006.

MENTORING

Graduate

Aayushma Kunwar (2025 – present)

PhD Thesis: To be determined

Justique Woolridge (2025 – present)

MA Thesis: To be Determined

Miranda Gonzales (2024 – present)

PhD Thesis: To be determined

Emerson Larios (2020 – present)

PhD Thesis: To be determined

MA Thesis: Pre-Existing Sleeping Patterns and Their Effect on Stress Development

Oscar Menchaca (2024 – present)

MA Thesis: Baseline Sleep as a Predictor of State-Trait Anxiety, Acculturative Stress, and General Stress: Associations with Cortisol Regulation

Beverly C. Vickrey (2022 – 2023)

MA Thesis: The Effect of Stochastic Resonance via Pink Noise on Slow-Wave Sleep and Regularity Extraction

James K. Westphal (2021 – 2023)

MA Thesis: The Effect of Slow-Wave Sleep on Explicit and Implicit Recall Memory Performance

Sarah C. Hamm (2020 – 2022)

MA Thesis: The Effects of Slow-Wave-Sleep on Pattern Recognition and the Formation of False Composite Memories

Lee Anne Cannella (2013 – 2014)

MA Thesis: Individual Trait-Like Differences in Long-Term Sleep Patterns Modulate Emotional and Cognitive Processing

Post-Baccalaureate

Raghav Patel (2020 – 2023)

Hanna Velez-Barjak (2022 – 2024)

Anosha Khawaja (2017-2018)

Shira Lupkin (2014 –2017)

Undergraduate

Emily Lopez (2026 – present)

Davan Greenwell (2025 – present)

Harish Dharshan (2025 – present)

Kaya Salas (2025 – present)

Sanayah Murphy (2025 – present)

Adella Harb (2025 – present)

Laiba Farooqi (2025 – present)

Briana Keaster (2025 – present)

Christina Manalo (2025 – present)

Catherine Sheeran (2025)

Anvitha Koppada (2024 – present)

Mandy Chen (2024 – present)

Imanol Gonzales (2024 – present)

Alexandra Lerma (2023 – present)

Melanie palacio (2024 – 2025)

Lillianna Granados (2024 – 2025)

Julianna Saldivar (2024 – 2025)

Justique Woolridge (2023 – 2025)

Oscar Menchaca (2023 – 2025)

Vina Manoucheri (2023 – 2025)

Joann Phelps (2023 – 2025)

Alexa Pena (2023 – 2025)

Stephen Zajac (2023 – 2025)

Kendell Lyssy (2022 – 2024)

Carolina Muniz (2021 – 2024)

Sabrina Sanchez (2021 – 2025)

Emily Wood (2020 – 2023)

Alx McCabe (2022 – 2023)

Israa Ajroudi (2021 – 2023)

Cindy Onyenze (2021 – 2022)

Brian lepe (2021 – 2022)

Adeel Ahmed (2021 – 2022)

Alexis Gutz (2021 – 2022)

Raymond Nwobodo (2021 – 2022)
 Ijeoma Okoko (2020 – 2022)
 Saharsh Patel (2019)
 Tony Kerbaj (2016 – 2019)
 Alan Tsai (2015 – 2019)
 Donald Ohioma (2013 –2014)

SELECTED MEDIA COVERAGE

CTV. A Better Sleep Can Tame Your Fears. *Live TV interview.*
<http://www.ctvnews.ca/video?playlistId=1.3646566>

Time. Why Dreaming May Be Important for Your Health.
<http://time.com/4970767/rem-sleep-dreams-health/>

The Atlantic. Better Sleep Can Build Emotional Resilience.
<https://www.theatlantic.com/health/archive/2017/10/rem-and-trauma/543573/>

Newsweek. Getting a Full Night’s Rest Means You’re Probably More Resilient Than Everyone Else.
<http://www.newsweek.com/getting-full-nights-rest-means-youre-probably-more-resilient-everyone-else-690701>.

Huffington Post. The Sleep Phase Where You Dream May Make You Less Prone to Fear.
https://www.huffingtonpost.com/entry/rem-sleep-fear_us_59f749fce4b077d8dfcb3ea1

Daily Mail. Poor Sleep Makes You Fearful – and Can Increase a Soldier’s risk of PTSD.
<http://www.dailymail.co.uk/health/article-5009483/Poor-sleep-makes-FEARFUL-increase-risk-PTSD.html>

The Naked Scientists. Sleep Reduces Fear Learning Activity in the Brain. *Podcast Interview.*
<https://www.thenakedscientists.com/articles/science-news/sleep-reduces-fear-learning-activity-brain>

National Public Radio. The Military Discovered a Way to Boost Soldiers' Memories, and We Tried It. *Video and interview with partners from The University of New Mexico about our DARPA project collaboration.*
<https://www.npr.org/2019/10/22/769403296/video-the-military-discovered-a-way-to-boost-soldiers-memories-and-we-tried-it?jwsourc=fb>

San Antonio Express-News. UTSA scores \$4M for research on making artificial intelligence learn more efficiently — like a brain.
<https://www.expressnews.com/business/article/utsa-artificial-intelligence-research-grants-18518167.php>

Neuroscientists Talk Shop. *UTSA Podcast Interview.*
<https://www.youtube.com/watch?v=r6Nwh6PTrEM>

KCWX 2. *UTSA Sleep and PTSD Study. TV interview.*
<https://www.youtube.com/watch?v=RPux8PluTX4>

ADDITIONAL PROFESSIONAL EXPERIENCE

Research-Related

ConicIT Ltd: Petah-Tikva, IL.
Research Consultant. 2011- 2012.

Advanced Course in Computational Neuroscience (ACCN), Freiburg, Germany
 Summer-school for graduate students, August, 2008.

Department of Psychiatry, Columbia University, New York, NY (work done mostly from Israel).
Research assistant (under Dr. Bruce Dohrenwend). January 2003 - August 2004.

The Institute of Life Sciences, The Hebrew University of Jerusalem, Jerusalem, IL
Research assistant (under Dr. Ariel Darvasi). March 2002 - January 2003.

Department of Psychology, The Hebrew University of Jerusalem, Jerusalem, IL
Research assistant (under Dr. Yehuda Shavit). October 2001 - July 2002.

Falk Institute for Mental Health and Behavioral Studies, Jerusalem, IL.
Research assistant, 2001 -2002.

Military Service

Nuclear Research Center - Negev: 1997-1999.

Preparation course in nuclear physics and radiation: 1996.

PROFESSIONAL AND ACADEMIC SERVICE

Editorial Roles

Frontiers in Cognitive Neuroscience (Review Editor on Editorial Board; 2023 – present)

Frontiers in Human Neuroscience Research Topic (Co-Editor; 2025)

Frontiers in Psychology Research Topic (Co-Editor; 2022 – 2023)

Frontiers in Neuroscience Research Topic (Lead Editor; 2020 – 2022)

Grant Reviewer:

Mind Science Foundation (Ad Hoc Reviewer; BrainStorm award, 2025)

National Science Foundation (Ad Hoc Reviewer, Cognitive Neuroscience program; 2019, 2025)

Israeli Science Foundation (Ad Hoc Reviewer, Cognitive Neuroscience program; 2024)

National Science Foundation (Panelist & Reviewer, Cognitive Neuroscience program; 2022)

American Psychological Association (Ad Hoc Reviewer, Dissertation Research Award; 2021)

Ad Hoc Journal Reviewer:

Brain & Behavior

Brain Sciences

Cell Reports

Cognition and Emotion

Cognitive Neurodynamics

Communication Biology

Journal of Cognitive Psychology

Journal of Computational Neuroscience

Journal of Experimental Psychology - General

Journal of the Experimental Analysis of Behavior

Journal of the Integrative Neuroscience

Frontiers in Behavioral Neuroscience

Frontiers in Human Neuroscience

Frontiers in Neuroscience

Frontiers in Psychiatry

IRBO Neuroscience Reports

Memory and Cognition

Nature and Science of Sleep

Neural Computation

Neurobiology of Learning and Memory

PLoS Biology

PLoS One

Proceedings of the National Academy of Science

Psychological Review

Quantitative Imaging in Medicine and Surgery

Scientific Studies of Reading

Sleep

Sleep Advances

The 33rd Annual Conference of the Cognitive Science Society (CogSci 2011)

Membership in Professional Societies

Sleep Research Society

Society for Neuroscience

The Cognitive Science Society

Departmental Service

Academic Policy & Curricula Committee (Member and Co-Chair; 2020 – 2022)

Annual Review of Performance Committee (Member; 2022)

Annual Review of Performance Revision Committee (Member; 2022 – 2023)

Doctoral Admission Committee (Member; 2020 – present)

Research Advisory Committee (Chair; 2021 – 2022)

Strategic Planning of Research Committee (Co-chair, 2025-2026)

College-level Service

College of Health, Community and Policy - Research Committee (Member, 2023 – 2025)

College of Health, Community and Policy – Advisory to the Dean (Member; 2023 – present)