

APPOINTMENTS

Assistant Professor Program in Neuroscience, Bates College, Lewiston, ME	2023-present
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EDUCATION & TRAINING

Postdoctoral Research Fellow , Advisor: Jordan A. Taylor, PhD Dept. of Psychology, Princeton University, Princeton, NJ	2020-2023
Visiting Postdoctoral Researcher , Advisor: Samuel D. McDougale, PhD Dept. of Psychology, Yale University, New Haven, CT	2021-2023
PhD, Neuroscience , Advisor: Javier F. Medina, PhD Div. of Neuroscience, Baylor College of Medicine, Houston, TX	2015-2020
MA, Psychology , Advisors: Lori Flanagan-Cato, PhD & Javier F. Medina, PhD Dept. of Psychology, University of Pennsylvania, Philadelphia, PA	2014-2015
BA, Psychology , Research Advisor: Mark O. West, PhD Rutgers University, New Brunswick, NJ Minor: Philosophy	2010-2014

PUBLICATIONS

B Parrell, C Naber, **OA Kim**, CA Nizolek, SD McDougale (2024). Audiomotor prediction errors drive speech adaptation even in the absence of overt movement. *bioRxiv*. <https://doi.org/10.1101/2024.08.13.607718>

N Al-Fawakhiri, A Ma, JA Taylor, **OA Kim** (2023). Exploring the role of task success in implicit motor adaptation. *Journal of Neurophysiology*, *Journal of neurophysiology*, 130(2).
<https://doi.org/10.1152/jn.00061.2023>

OA Kim, AD Forrence, & SD McDougale (2022). Motor learning without movement. *Proceedings of the National Academy of Sciences*, 119(30). <https://doi.org/10.1073/pnas.2204379119>

NP Achilly, LJ He, **OA Kim**, S Ohmae, GJ Wojaczynski, T Lin, RV Sillitoe, JF Medina, HY Zoghbi (2021). Deleting Mecp2 from the cerebellum rather than its neuronal subtypes causes a delay in motor learning in mice. *eLife*, 10. <https://doi.org/10.7554/eLife.64833>

OA Kim, S Ohmae, S., & JF Medina (2020). A cerebello-olivary signal for negative prediction error is sufficient to cause extinction of associative motor learning. *Nature Neuroscience*, 23(12).
<https://doi.org/10.1038/s41593-020-00732-1>

SA Heiney, S Ohmae, **OA Kim**, & JF Medina (2018). Acute, single-unit recordings combined with optogenetic manipulations in the awake, behaving mouse during eyeblink conditioning. Ed. R. V. Sillitoe. In *Neuromethods: Extracellular Recording Approaches* (pp. 39-71).

DJ Barker, BM Striano, KR Coffey, DH Root, AP Pawlak, **OA Kim**, J Kulik, AT Fabbriatore, & MO West (2014). Sensitivity to self-administered cocaine within the lateral preoptic-rostral lateral hypothalamic continuum. *Brain Structure and Function*, 220 (3). <https://doi.org/10.1007/>

FUNDING

NIH F32: An investigation into the neurobehavioral interactions between sensory- and reward- prediction errors during motor learning.

PI: OA Kim. Agency: NIH NINDS. Dates: 9/2022 – 8/2023 Project Number: 1F32NS122921

NIH F31: Computation of negative prediction error in the inferior olive and its role in cerebellar motor learning.

PI: OA Kim. Agency: NIH NINDS. Dates: 7/2017 – 6/2020 Project Number: 1F31NS103427

SELECTED PRESENTATIONS

OA Kim, L Mindlin (2025). Improvement in cognitive strategy-based performance during a visuomotor adaptation task. Poster given at the 2025 Annual Meeting of the Society for the Neural Control of Movement in Veracruz, Panama.

OA Kim, JA Taylor (2023). Improvement in cognitive strategy-based performance during a visuomotor adaptation task. Poster given at the 2024 Annual Meeting of the Society for Neuroscience in Washington, DC.

OA Kim, C Velázquez-Vargas, JA Taylor (2022). The use of mental rotation strategies in a visuomotor adaptation task incurs a distinct cognitive effort cost. Poster given at the 31st Annual Meeting of the Society for the Neural Control of Movement, Dublin, Ireland.

OA Kim, AD Forrence, SD McDougale (2021). Sensory prediction errors are sufficient for implicit adaptation of withheld movements. Talk at MLMC.

OA Kim, AD Forrence, SD McDougale (2021). Remotely Quantifying Visuomotor Learning with and without Movement. Talk at BeOnline Conference.

OA Kim, S Ohmae, JF Medina (2021). Inhibition of the inferior olive is sufficient for extinction of cerebellar motor learning. Symposium talk at the 1st China-Japan-Korea International Meeting, 44th Annual Meeting of the Japan Neuroscience Society.

OA Kim, AD Forrence, SD McDougale (2021). Implicit visuomotor adaptation without movement. Blitz talk at the 30th Annual Meeting of the Society for the Neural Control of Movement.

OA Kim, S Ohmae, JF Medina (2020). Cerebellar error signals and plasticity during extinction of delay eyeblink conditioning. Neurophysiologisches Seminar, Universitätsmedizin Essen.

OA Kim, JF Medina (2019). Learning to stop: A process driven by silencing the olive. Talk given at the 29th Annual Rush and Helen Record Forum for Neuroscience. Galveston, TX.

OA Kim, JF Medina (2017). Transient stimulation of inhibitory cerebello-olivary terminals causes extinction of conditioned eyelid responses. Gordon Research Seminar on the Cerebellum. Lewiston, ME. 2017.

OA Kim, KR Coffey, DJ Barker, S Ma, AP Pawlak, AT Fabbricatore, MO West (2014). Evidence for tuning to preferred drug levels during cocaine self-administration by nucleus accumbens neurons. Poster presented at Society for Neuroscience, Washington D. C.

TEACHING

Cognitive Neuroscience Lecture/Lab

Winter 2024

Seminar in Biological Psychology: Motor Control

Winter 2024

**What Makes Up Your Mind? Neurocognitive Processes
for Decision Making and Control**

Fall 2024

Methods in Neurohistology

Short Term 2024

The Neuroscience of Video

Winter, Fall 2024

Physiological Psychology Lecture/Lab

Fall 2023, 2025

SERVICE

Institutional Animal Care and Use Committee , Bates College	2024 - present
Phi Beta Kappa , Gamma Chapter of Maine Vice President	2024 - present
Princeton Distress Awareness and Response (PDAR) Partner , Princeton Univ.	2022
Symposium Co-chair , Chair: Shogo Ohmae, PhD	July 31, 2021
Session title: Understanding and modeling cerebellar functions	
1 st China-Japan-Korea International Meeting	
44 th Annual Meeting of the Japan Neuroscience Society	
Writing Accountability Group Leader , BCM	2020
Lecturer, Buddy program coordinator , BCM Neuroscience Bootcamp	2016, 18, 20
Instructor & Experiment Leader , Philadelphia Area Girls Enjoying Science	11/2014
Meeting Coordinator , Behavioral Neuroscience at Penn	9/2014-5/2015
Classroom Assistant , Penn Early Access to Graduate Research	11/2014