

ERIC D. RICCI

University of Arizona: PhD in Neuroscience (2024-Present)

Carnegie Mellon University: M.A. in Rhetoric (2022)

Carnegie Mellon University: B.S. in Cognitive Neuroscience (2021)

PUBLICATIONS/CONFERENCES

McKeague, M. L., Lohmueller, J., Dracz, M. T., Saadallah, N., **Ricci, E. D.**, Beckwith, D. M., Ayyalasomayajula, R., Cudic, M., & Finn, O. J. (2024). Preventative Cancer Vaccine-Elicited Human Anti-MUC1 Antibodies Have Multiple Effector Functions. *Antibodies*, 13(4), 85. <https://doi.org/10.3390/antib13040085>

McKeague, M. L., Lohmueller, J., Dracz, M. T., Saadallah, N., Xue, J., **Ricci, E. D.**, ... & Finn, O. J. (2022, June). Patient-derived, vaccine-elicited, anti-MUC1 antibodies directly target tumor cells for elimination via multiple immune mechanisms. In *CANCER RESEARCH* (Vol. 82, No. 12). 615 CHESTNUT ST, 17TH FLOOR, PHILADELPHIA, PA 19106-4404 USA: AMER ASSOC CANCER RESEARCH.

Michelle L. McKeague, Jason Lohmueller, Matthew T. Dracz, Najla Saadallah, Jia Xue, **Eric D. Ricci**, William Lu, Olivera J. Finn; Abstract LB179: Patient-derived, vaccine-elicited, anti-MUC1 antibodies directly target tumor cells for elimination via multiple immune mechanisms. *Cancer Res* 15 June 2022; 82 (12_Supplement): LB179. <https://doi.org/10.1158/1538-7445.AM2022-LB179>

McKeague, M., Lohmueller, J., **Ricci, E.**, Lu, W., & Finn, O. (2019, November). Anti-MUC1 monoclonal antibodies derived from the first non-viral prophylactic cancer vaccine clinical trial can target cancer cells and facilitate their immune-mediated elimination. In *JOURNAL FOR IMMUNOTHERAPY OF CANCER* (Vol. 7). CAMPUS, 4 CRINAN ST, LONDON N1 9XW, ENGLAND: BMC.

Michelle L Miller, Jason Lohmueller, **Eric Ricci**, William Lu, Olivera J Finn, Patient-derived, vaccine-elicited MUC1 antibodies mediate immune effector functions against cancer cells, *The Journal of Immunology*, Volume 202, Issue 1_Supplement, May 2019, Page 136.17, <https://doi.org/10.4049/jimmunol.202.Supp.136.17>

EXPERIENCE

PhD Student in the Warden Lab—University of Arizona

April 2025 – May 2026

- In the Warden lab (www.wardenlab.org), I studied how neuromodulator tone enhances or suppresses the expression of emotionally-motivated behavior. Specifically, I'm very interested in the integration of dynamical systems theory with cognitive ethology, or how internal states like hunger, arousal, or motivation can be modeled and co-represented in high dimensional space. I'm specifically interested in phase transitions between brain states, and how functionally distinct neuromodulatory circuitry converge to impact the production of emotional behavior.
- My work primarily uses fiber photometry, optogenetics, and chemogenetics to investigate real time neural firing data *in vivo* in freely moving and behaving mice. Techniques I regularly employ are:
 - Stereotaxic survival surgery
 - Behavioral testing
 - Histology (IHC, ISH, Flow Cytometry, RNAScope)
 - Data Analysis (MATLAB, Python, R, ArduinoIDE)
 - Embedded Systems Engineering (hardware optimization, signal processing, soldering)

Neuroscience PhD Student Rotations—University of Arizona

June 2024 - March 2025

- Working under Dr. Haining Zhu, I performed Western Blotting, quantitative RT-PCR, and RNA-immunoprecipitation assays in order to elucidate the mechanism of action for G3BP1 regulation of STING protein and mRNA expression in the context of immune-managed neurodegeneration of neurons.
- Working under Dr. Katalin Gothard, I prepared various stimuli to test rhesus macaques' eye movements in the context of an artificial social hierarchy. I created a data processing pipeline to analyze eye tracking data from our experiments in MATLAB in a scalable and generalizable manner.

Omnichannel Experience Consultant – Indegene

June 2022 - June 2023

- Acted as project manager and lead client contact on several multimillion-dollar engagements, utilizing various methodologies to improve cross-functional collaboration across various teams.

Research Associate – Carnegie Mellon, University of Pittsburgh Medical Center

Summer 2018 - Fall 2022

- Responsible for solving complex problems in cancer clinical trial research by designing, analyzing and modeling data-generative experiments, and presenting findings to a team of investigators..
- Responsible for investigating the anti-tumor properties of Mucin-1 (MUC1) as a cancer biomarker, working with mice to create vaccination strategies to elucidate anti-MUC1 monoclonal antibodies. Helped

perform various functional voxel-based analysis of fMRI data, utilizing softwares like BrainVoyager to perform transformations into standardized spaces and running multivariate statistical analysis to contrast areas of activation and inhibition across different patients.

- Prepared a survey of existing aphasia knowledge in the form of a literature review in order to compile a large database correlating brain lesion location with functional/behavioral deficit.

Legal Writer – May Law Group LLC

Summer 2020

- Petitioned the US government to grant legal permanent resident status for immigrants across the nation.
- Responsible for the case construction and writing, working 1-on-1 with clients to make their stories heard

Consultant/Instructor– Carnegie Debate

Spring 2018 – Summer 2019

- Educated young students of a variety of backgrounds in the essentials of good communication, preparing them for success in debate and beyond.

AWARDS/ HONORS

- GRAD Space Scholar: 2024
- Best Presenter, Indegene 2022
- Dean's List: 2020, 2021

SERVICE

- Grant Reviewer, UA ReaP Grant, 2026
- Volunteer, Small Dogs Rescue Shelter AZ, 2025
- Volunteer, Jubilee Soup Kitchen: 2021-2023

TEACHING

- Private Chemistry Tutor, 2019-2020
- Instructor, Carnegie Debate: 2018-2020