

CIANA E. DEVEAU

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EDUCATION

BROWN UNIVERSITY Providence, RI SEPT 2020 – PRESENT
Department of Neuroscience, Brown-NIH Graduate Partnership Program
Ph.D. Neuroscience

UNIVERSITY OF VIRGINIA Charlottesville, VA AUG 2014 – MAY 2018
B.A. Biology and French | Certificate: McIntire Business Institute

FOUNDATION FOR ADVANCED EDUCATION IN THE SCIENCES GRADUATE SCHOOL Bethesda, MD
COURSES: Advanced Applications of Artificial Intelligence, Applied Machine Learning with Python, Intro to Python

RESEARCH EXPERIENCE

NATIONAL INSTITUTES OF MENTAL HEALTH, NIH Bethesda, MD MAY 2021 – PRESENT
PhD Candidate, SUPERVISOR: DR. MARK HISTED
Thesis: Local recurrent network contributions to dynamic visual processing

MARINE BIOLOGICAL LABORATORY, MBL Woods Hole, MA AUG 2024
Brains Minds Machines Student, DIRECTORS: DR. GABRIEL KREIMAN & DR. BORIS KATZ
Project: Interpreting high dimensional representations of natural movie responses in mouse V1

BROWN UNIVERSITY Providence, RI JAN 2021 – May 2021
Rotation Student, SUPERVISOR: DR. MICHAEL PARADISO
Project: Investigating the latent neural dynamics underlying saccadic eye movements in primate visual cortex

BROWN UNIVERSITY Providence, RI SEPT 2020 – JAN 2021
Rotation Student, SUPERVISOR: DR. THOMAS SERRE
Project: Deep HMAX: biologically inspired CNN to facilitate scale invariance in objection recognition tasks

NEUROLOGICAL DISORDERS AND STROKE, NIH Bethesda, MD JUN 2018 – JULY 2020
Post-bac Fellow, SUPERVISOR: DR. RALPH NELSON
Project: Thyroid hormone receptor beta mutations alter photoreceptor development and function in zebrafish

UNIVERSITY OF VIRGINIA Charlottesville, VA JAN 2015– MAY 2018
Undergraduate Research Student , SUPERVISOR: DR. ROGER ABOUNADER
Project: Discovery and therapeutic exploitation of mechanisms of resistance in glioblastoma

PUBLICATIONS AND PRESENTATIONS

PUBLICATIONS

Ciana E Deveau*, Zhishang Zhou*, Paul K LaFosse, Yanting Deng, and Mark H Histed. Recurrent cortical networks encode natural sensory statistics via sequence filtering. *Neuron*. In Press

Bradley Akitake*, Hannah M Douglas*, Paul K LaFosse, Manuel Beiran, **Ciana E Deveau**, Jonathan O’Rawe, Anna J Li, LN Ryan, Sam P Duffy, Zhishang Zhou, Yanting Deng, Kanaka Rajan, Mark H Histed. Amplified cortical neural responses as animals learn to use novel activity patterns. *Current Biology*. 2023

Chuanyu Guo, **Ciana Deveau**, Cen Zhang, Ralph Nelson, and Xiangyun Wei. Zebrafish Crb1, Localizing Uniquely to the Cell Membranes around Cone Photoreceptor Axonemes, Alleviates Light Damage to Photoreceptors and Modulates Cones’ Light. *Journal of Neuroscience*. 2020

Ciana Deveau, Xiaodong Jiao, Sachihiro Suzuki, Asha Krishnakumar, Takeshi Yoshimatsu, J Fielding Hetjmancik, Ralph F Nelson. Thyroid hormone receptor beta mutations alter photoreceptor development and function in *Danio rerio* (zebrafish). *PLOS Genetics*. 2020

Ying Zhang, Collin Dube, Myron Gibert, Nichola Cruickshanks, Baomin Wang, Maeve Coughlan, Yanzhi Yang, Initha Setiady, **Ciana Deveau**, Karim Saoud, Cassandra Grello, Madison Oxford, Fang Yuan, Roger Abounader. The p53 pathway in glioblastoma. *Cancers*. 2018

Nichola Cruickshanks Ying Zhang, Sarah Hatef, Myron Gibert, Fang Yuan, Madison Oxford, Cassandra M Grello, Mary Pahuski, Collin Dube, Fadila Guessous, Baomin Wang, **Ciana Deveau**, Karim Saoud, Rosa I Gallagher, Julia D. Wulfkuhle, David Schiff, See-Chun Phan, Emanuel F. Petricoin. Discovery and therapeutic exploitation of mechanisms of resistance to MET inhibitors in glioblastoma. *Clinical Cancer Research*. 2018

ORAL PRESENTATIONS

Recurrent cortical networks encode natural sensory statistics via sequence filtering, Neurotheory Research Group, Houston, TX September 2025

Recurrent cortical networks encode natural sensory statistics via sequence filtering, ANCOR (AI, Neuro, Cog Sci) Series, Providence, RI February 2025

Recurrent cortical networks encode natural sensory statistics via sequence filtering, BRAIN NeuroAI Workshop, Bethesda, MD November 2024

Recurrent cortical networks encode natural sensory statistics via sequence filtering, NIH-Brown Neuroscience Retreat, Woods Hole, MA April 2024

Selective amplification of sequences of neural activity by recurrent circuits of visual cortex, Bernstein Conference on Computational Neuroscience, Berlin, Germany October 2023

Selective amplification of sequences of neural activity by recurrent circuits of visual cortex, NIH Fellows Afternoon Neuroscience Seminar, Bethesda, MD September 2023

Selective amplification of sequences of neural activity by recurrent circuits of visual cortex, NIMH Training Day, Bethesda, MD September 2022

POSTER PRESENTATIONS

Recurrent cortical networks encode natural sensory statistics via sequence filtering, BRAIN NeuroAI Workshop, Bethesda, MD November 2024

Active filtering of sequences of neural activity by recurrent circuits of sensory cortex, Sculpted Light in the Brain Conference, Paris, France June 2024

Selective amplification of sequences of neural activity by recurrent circuits of visual cortex, Cosyne, Lisbon, Portugal March 2024

Selective amplification of sequences of neural activity by recurrent circuits of visual cortex, Society for Neuroscience, Washington, DC November 2023

Selective amplification of sequences of neural activity by recurrent circuits of visual cortex, Lake Conference on Neural Coding and Dynamics, Seattle, WA September 2023

Selective amplification of sequences of neural activity by recurrent circuits of visual cortex, Society for Neuroscience, San Diego, CA November 2022

Selective amplification of sequences of neural activity by recurrent circuits of visual cortex, Sculpted Light in the Brain Conference, Boston, MA June 2022

Determining V1's influence in decision-making by photostimulation of sensory and choice neurons during behavior, NIH Graduate Student Research Symposium, Virtual, February 2022

Tr β 2 mutant zebrafish exhibit altered physiological function in the inner retina, NIH Postbac Poster Day, Bethesda, MD, April 2020

Tr β 2 mutant adult zebrafish have altered photoreception and cone morphology, Mid-Atlantic Region Zebrafish Conference, Bethesda, MD, November 2019

Alterations in photoreceptor signals due to thyroid hormone receptor beta mutations are present in larval and adult zebrafish, Society for Neuroscience, Chicago, IL, October 2019

Thyroid hormone receptor beta mutations alter photoreceptors in larval and adult zebrafish, NINDS Training Day, Bethesda, MD, June 2019

Thyroxin beta-2 receptor mutations alter or eliminate the signals of long-wavelength cones in zebrafish retina, Association for Research in Vision and Ophthalmology, Vancouver, BC, April 2019

Thyroxin beta-2 receptor mutations alter or eliminate the signals of long-wavelength cones in zebrafish retina, Mid- Atlantic Region Zebrafish Conference, Baltimore, MD, April 2019

The effect of EGFR-AS1 on glioblastoma cell lines, Katz Symposium, University of Virginia, Charlottesville, VA, December 2017

The effect of EGFR-AS1 on glioblastoma cell lines, Katz Symposium, University of Virginia, Charlottesville, VA, May 2017

AWARDS

2024 BRAIN NeuroAI Early-Career Scholar Honoree

2024 Sculpted Light in the Brain Travel Award

2023-2024 Robin Chemers Neustein Graduate Fellowship

2022 NIH Graduate Student Research Symposium Travel Award

2022 BRAIN Initiative Meeting Trainee Highlight Award Honorable Mention