

# JULIA GORMAN

San Diego, CA

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## EDUCATION

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**University of California, San Diego**

*PhD in Computational Neuroscience; specialization in Anthropogeny*

Sep 2020 – present

La Jolla, CA

**Seattle University**

*BS Mathematics, BA Biology - Summa Cum Laude*

Sep 2016 – Mar 2020

Seattle, WA

## RESEARCH INTERESTS

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- Neural population dynamics underlying task-free naturalistic behavior
- Integrating theory and experiments to link biological network connectivity to emergent dynamics

## RESEARCH TRAINING

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- 2023** – Graduate Student Researcher, UC San Diego, **Advisor: Timothy Q Gentner, Ph.D.**
- 2020 – 2023** Graduate Student Researcher, UC San Diego, **Advisor: Cory Miller, Ph.D.**
- 2018 – 2020** Undergraduate Researcher, Seattle University, **Advisor: Brian Fischer, Ph.D.**
- 2019 – 2020** Undergraduate Researcher, Washington University in St. Louis, **Advisor: Barani Raman, Ph.D.**
- 2018 – 2019** Undergraduate Researcher, Seattle University, **Advisor: Leanne Robertson, Ph.D.**
- 2017 – 2018** Undergraduate Researcher, Seattle University, **Advisor: Eric Bahuaud, Ph.D.**

## PUBLICATIONS

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### Scientific Manuscripts

5. Christian Cazares, Maribel Patiño, Minerva Contreras, **Julia C Gorman**, Jillybeth Burgado, Sana A Ali, Quirine van Engen, Eena L Kosik, Pamela Riviere, Emily T Baltz, Chimuanya K Agba, Michael Preston, Akshay Nagarajan, Jianna Cressy, Natalie Paredes, Chiaki Santiago, Kevin L White (2024) A trainee-informed model for undergraduate neuroscience research programs serving marginalized students. *Nat Neurosci* 27, 2047–2052.
4. Dori M. Grijseels, Brenden J. Prendergast, **Julia C. Gorman**, Cory T. Miller. (2023) The neurobiology of vocal communication in marmosets. *Annals of NY Academy of Sciences*.
3. **J Gorman**, K Holzhausen, J Reimer, J Riseth. Realizing Synaptic Signal Transmission During Astrocyte-Neuron Interactions within the EMI Framework. *Computational Physiology: Simula Summer School 2022 Student Reports*, edited by Kimberly J. McCabe, Springer Nature Switzerland, 2023, pp. 65–78. Springer Link.
2. **Julia C. Gorman\***, Victoria Ngo\*, Fernanda de la Fuente, Antonio Souto, Nicola Schiel, Cory T Miller (2022) Active vision for prey-pursuit in wild marmoset monkeys. *Current Biol* 32(15): 3423-3428.e3.
1. **Gorman JC**, Tufte OL, Miller AVR, DeBello WM, Peña JL, Fischer BJ (2021) Diverse processing underlying frequency integration in midbrain neurons of barn owls. *PLoS Comput Biol* 17(11): e1009569.

### Science Communication (\* indicates includes Spanish translation)

8. “Shocking the brain to protect your memories” **JC Gorman**. NeuWrite San Diego, 8 Sep. 2022
7. “Brains in Space” \* **JC Gorman**. NeuWrite San Diego, 11 May. 2022
6. “Genetics of Sasquatch: Making Cryptozoology scientific?” **JC Gorman**. NeuWrite San Diego, 27 Jan. 2022
5. “Breastmilk for Baby Brains.” \* **JC Gorman**. NeuWrite San Diego, 2 Dec. 2021
4. “Are we ready for chips in our brains?” \* **JC Gorman**. NeuWrite San Diego, 11 Nov. 2021

3. “What’s a Topology and Why is it in my Neuroscience?!” \* **JC Gorman**. NeuWrite San Diego, 10 June. 2021
2. “Neuromorphic Engineering: How Computers are Learning from the Brain” \* **JC Gorman**. NeuWrite San Diego, 22 Apr. 2021
1. “Ketamine and Psychedelics: Next-Wave Antidepressants” **JC Gorman**. NeuWrite San Diego, 21 Jan. 2021

## GRANTS AND FELLOWSHIPS

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- 2024 – 2030** NIH Blueprint D-SPAN Predoctoral to Postdoctoral Training Grant (F99/K99)  
**2023 – 2025** Center for Academic Research and Training in Anthropogeny Fellowship  
**2019 – 2020** NIH Blueprint ENDURE Research Fellowship

## PRESENTATIONS

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### Invited Research Talks

- Mar 2025** Expectation-dependent neural population dynamics in a sensory population during behavior. *Cosyne*, Montreal, CA.
- Jan 2025** Neural population dynamics underlying vocal communication behaviors *UCSD NGP Research Rounds*, San Diego, CA.
- Nov 2024** Determining fixed points of a network from its underlying graph. *Janelia Junior Scientist Workshop on Theoretical Neuroscience*, Ashburn, VA.
- Nov 2024** Expectation-driven sensory adaptations support enhanced acuity not probabilistic integration during categorical perception. *Janelia Junior Scientist Workshop on Theoretical Neuroscience*, Ashburn, VA.
- May 2023** Neural population dynamics in area MT. *UCSD NGP Research Rounds*, San Diego, CA.
- May 2023** Recommendations for Serving Students from Historically Marginalized Groups in Neuroscience. *virtually at Bowdoin College*, Brunswick, ME.
- Mar 2023** Recommendations for Serving Students from Historically Marginalized Groups in Neuroscience. *Cognitive Neuroscience Society*, San Francisco, CA.
- Nov 2019** Modeling ICx Neurons in the Barn Owl. *SMART Friday at Seattle University*, Seattle, WA.
- Apr 2018** Solving PDEs using a Crank-Nicolson Scheme. *PNW Chapter of the Mathematical Association of America*, Seattle, WA.

### Posters

- Nov 2024** **Julia C Gorman**. Determining fixed points of a network from its underlying graph. *Janelia Junior Scientist Workshop on Theoretical Neuroscience*, Ashburn, VA.
- Nov 2024** **Julia C Gorman**. Expectation-driven sensory adaptations support enhanced acuity not probabilistic integration during categorical perception. *Janelia Junior Scientist Workshop on Theoretical Neuroscience*, Ashburn, VA.
- May 2023** **Julia C Gorman**. Neural population dynamics in area MT. *UCSD NGP*, San Diego, CA.
- May 2023** **JC Gorman**, Sana Ali, and Jianna Cressy. Recommendations for Serving Students from Historically Marginalized Groups in Neuroscience. *Bowdoin College*, Brunswick, ME.
- Mar 2023** **JC Gorman**, Christian Cazares, MJ Preston, Sana Ali, and Pamela Riviere. Recommendations for Serving Students from Historically Marginalized Groups in Neuroscience. *Cognitive Neuroscience Society*, San Francisco, CA.
- Nov 2019** **Gorman, Julia** and Miller, Anna. Modeling ICx Neurons in the Barn Owl. *SMART Friday*, Seattle, WA.
- Apr 2018** **Julia Gorman**. Solving PDEs using a Crank-Nicolson Scheme. *PNW Chapter of the Mathematical Association of America*, Seattle, WA.

## TEACHING EXPERIENCE AND MENTORSHIP

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### Teaching Experience

- Aug 2025 – Sep 2025** Assoc. Instructor: BIPN/PSYC 189: Brains, Behavior, and Evolution  
**Sep 2023** Instructor: NGP Comp. Neuroscience Bootcamp  
**Jul 2024 – Aug 2024** Instructor: STARTneuro Sensory Systems and Sensory Systems Lab  
**Sep 2023** Neurosciences Graduate Program Comp. Neuroscience Bootcamp TA  
**Sep 2022** Neurosciences Graduate Program Comp. Neuroscience Bootcamp TA  
**Aug 2022** Intro to Python NIH BP ENDURE Workshop TA  
**Sep 2021** Neurosciences Graduate Program Comp. Neuroscience Bootcamp TA  
**Jun 2021 – Aug 2021** STARTneuro Summer Program TA

### Research Advising

- 2024 – 2025** Camila Romero, NGP-GAAP  
**2024 – 2025** Sayed Sadaat, Colors of the Brain mentee  
**2023 – 2024** Jazylnn Meza, Colors of the Brain mentee  
**2023 – 2023** Hector Orozco, Undergraduate Research Assistant, Miller Lab  
**2022 – 2023** Anand Mysorekar, Undergraduate Research Assistant, Miller Lab  
**2022 – 2023** Sharai Barrera, Color of the Brain Mentee  
**2021 – 2022** Maria Puerto Fals, Científico Latino Mentee

## AWARDS AND HONORS

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- 2025** COSYNE Presenters Travel Award  
**2025** Summer Graduate Teaching Scholars Award  
**2023** Society for Neuroscience Scholars Program Associate  
**2022** SIMULA Summer School in Computational Physiology Travel Award  
**2020** Mirbahgeri-Yandl Award for Achievement in Mathematics  
**2018** Seattle University College of Science and Engineering Bannan Scholar  
**2018** Alpha Sigma Nu Honor Society

## LEADERSHIP POSITIONS

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- 2024 –** Executive and Advisory Board Memeber, Colors of the Brain (CoB), UCSD  
**2021 –** Contributor and Spanish Translator, NeuWrite SD  
**2020 –** Member, UCSD NGP Diversity Committee  
**2021 – 2024** Member, UCSD NGP Admissions Committee  
**2022 – 2024** Program Coordinator, CoB- Kavli Institute for Brain and Mind (KIBM) Summer Program  
**2022 – 2024** Event Coordinator, Taste of Science SD  
**2021 – 2022** Event and Outreach Coordinator, CoB-KIBM, University of California, San Diego  
**2020 – 2024** Chair, UCSD NGP Social Media Committee  
**2020 – 2022** Member, UCSD NGP Outreach Program  
**2021 – 2022** PhD Mentor, Científico Latino Graduate Mentorship Program

## WORKSHOPS AND SYMPOSIA ORGANIZED

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- Aug 2024** CoB-KIBM Summer Research Program Symposium
- Aug 2024** STARTneuro and CoB-KIBM joint workshop on Intro to Python
- Sep 2023** CoB-KIBM Summer Research Program Symposium
- Aug 2023** CoB-KIBM Summer Research Program Workshop: Presenting Your Research
- Aug 2023** NIH BP ENDURE Intro to Python
- Jul 2023** CoB-KIBM Bootcamp Intro to EEG, Analysis of Behavior, Intro to Coding
- Apr 2023** Taste of Science Event: Sexy Science: Gonads and Genitalia
- Sep 2022** CoB-KIBM Summer Research Program Symposium
- Aug 2022** CoB-KIBM Summer Research Program Workshop: Science Communication
- May 2022** CoB-KIBM Summer Research Program Workshop: Writing Statements of Purpose
- Apr 2022** Taste of Science Event: Sexy Science: Taste of Algae
- Mar 2022** CoB-KIBM Summer Research Program Workshop: Writing a CV
- Nov 2021** CoB-KIBM Summer Research Program Workshop: Applying to Research Programs