Ya'el Courtney

TikTok: https://www.tiktok.com/@letthedataspeak
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Website: www.yaelcourtney.com
Twitter: @ScienceYael

Education

08/2019 – 09/2024
Cambridge, MA,
United States

Ph.D. in Neuroscience
Harvard University

Thesis: "A choroid plexus apocrine secretion mechanism shapes CSF proteome and brain development"
Relevant coursework: Discipline of Neuroscience, Cortical Neurodevelopment, Cellular Basis of Neuronal Function, Arduino for Neurobiologists, Quantitative Microscopy, Thinking about Data (Matlab), Talking about Science, Neuroendocrinology, Genetics, Immunology. HMX coursework: *Cancer Genomics and Precision Oncology, Gene Therapy, Novel Therapies for Chronic Inflammation, Vaccines and Viral Immunology, Drug Discovery and Development*

08/2015 – 05/2019
Kent, OH,
United States of America

B.S. Cellular and Molecular Biology | Chemistry Minor
Kent State University

Summa Cum Laude with University Honors, 3.99 GPA
Relevant coursework: General Chemistry, Organic Chemistry I&II, Inorganic Chemistry, Physics I&II, Calculus, Probability & Statistics, Cell Biology, Molecular Biology, Neuroscience, Neuroendocrinology, Bioinformatics, Genetics, Epigenetics, Immunology, Infectious Disease, Psychology, Abnormal Psychology, Child Psychology

Research Experience

12/2024 – present
Stanford University School of Medicine
, Palo Alto, CA

Postdoctoral Scholar, Immunology and Rheumatology
Dr. William Robinson

The Robinson Laboratory uses interdisciplinary approaches in genomics, proteomics, and bioinformatics to investigate autoimmune diseases, focusing on the mechanisms that underlie the development and progression of autoimmunity. We are defining microbial triggers of autoimmunity, including the role of EBV. We strive to translate our findings into next-generation therapeutics, and 5 therapeutic programs have arisen from work performed in our lab.

09/2024 – 12/2024
Boston Children's Hospital,
Boston, MA

Postdoctoral Scholar
Dr. Maria Lehtinen

Finishing manuscripts and research from Ph.D.

06/2020 – 09/2024
Boston Children's Hospital,
Harvard Medical School,
Boston, MA

PhD Candidate
Dr. Maria Lehtinen

Areas of investigation: developmental neurobiology, maternal-fetal interactions, choroid plexus, psychedelics, cell biology
Project: I am interested in how and why an epithelial tissue called the choroid plexus sends signaling molecules through the cerebrospinal fluid during embryonic brain development. Further, I am studying how maternal exposures, including to psychedelic compounds, might disrupt this signaling and lead to improper brain development.

01/2018 – 08/2019
Kent State University, Kent,
OH

Honors Thesis Student
Dr. Gemma Casadesus

Areas of investigation: Neuroendocrinology, Alzheimer's disease pathophysiology
Project: Determine whether luteinizing hormone and its receptor are produced and distributed within the mouse brain. I used orthogonal approaches: constructing an *in situ* (HCR-FISH) and immunohistochemical atlas and utilizing single-cell RNA sequencing. I ultimately identified several exciting avenues of research that current PhD students in

Research Experience

the lab are following.

06/2018 – 08/2018
Broad Institute of MIT and Harvard, Harvard Medical School, Boston, MA

Broad Summer Research Program
Dr. Beth Stevens
Areas of investigation: Neuroimmunology, synaptic pruning, microglia
Project: I investigated the function of schizophrenia risk gene Csmd1 on synaptic pruning and cortical development using IHC, confocal microscopy, image processing and analysis.

05/2016 – 08/2017
Washington University in St. Louis, St. Louis, MO

Undergraduate Researcher
Dr. Todd Braver (CCP Lab - Cognitive Control and Psychopathology)
Areas of Investigation: task fMRI, twin study, cognitive control, motivation, heredity
Project: Investigating the hereditary nature of human neural activation patterns in task fMRI to evaluate their viability as an endophenotype for schizophrenia. (tcsh, R, AFNI)

Publications - Academic

1. Hochstetler, A., **Courtney, Y.**, Lehtinen, M. (2026) Roles of the Choroid Plexus in Brain Development, Homeostasis, and Plasticity. *Annual Review of Neuroscience*. Invited Review - In Preparation.
2. Kalugin, P., Soden, P., Massengill, C., Amsalem, O., Porniece, M., Guarino, D., Tingley, D., Zhang, S., Benson, J., Hammell, M., Tong, D., Ausfahl, D., Lacey, T., **Courtney, Y.**, Hochstetler, A., Holtzman, M., Li, Y., Lehtinen, M., Andermann, M. (2025) Simultaneous, real-time tracking of many neuromodulatory signals with Multiplexed Optical Recording of Sensors on a micro-Endoscope (MORSE). In Preparation.
3. Hochstetler, A., **Courtney, Y.**, Oloko, P., Ding, A., Baskin, B., Stinson, T., McGuone, D., Haynes, R., Lehtinen, M., Costine-Bartell, B. (2025) Acute NKCC1 disruption following severe TBI in the developing gyrencephalic brain. In Preparation. Expected submission January 2025.
4. **Courtney, Y.**, Hochstetler, A., & Lehtinen, M. (2025). Choroid Plexus Pathophysiology. *Annual Review of Pathology: Mechanisms of Disease*, *19*(1). Online ahead of print: https://doi.org/10.1146/annurev-pathmechdis-051222-114051
5. **Courtney, Y.,** Head, J.P, Dani, N., Shipley, F.B., Zhang, Y., Holtzman, M.J., Libermann, T.A., and Lehtinen, M.K. (2025). A choroid plexus apocrine secretion mechanism shapes CSF proteome and embryonic brain development. **In revision.** Preprint at bioRxiv, 10.1101/2024.01.08.574486. Highlighted by PreLights: https://prelights.biologists.com/highlights/a-choroid-plexus-apocrine-secretion-mechanism-shapes-csf-proteome-and-embryonic-brain-development/
6. Etzel, J., **Courtney, Y.**, Carey, C., Gehred, M., Agrawal, A., and Braver, T. Pattern Similarity Analyses of FrontoParietal Task Coding: Individual Variation and Genetic Influences, *Cerebral Cortex*, Volume 30, Issue 5, May 2020, Pages 3167–3183, https://doi.org/10.1093/cercor/bhz301
7. **Courtney, Y.** "The Production and Localization of Luteinizing Hormone in the Brain." Electronic Thesis or Dissertation. Kent State University, 2019. OhioLINK Electronic Theses and Dissertations Center. 16 Jul 2019.
8. Jose-Edwards, D., Johnson, N., Jimenez, J., **Courtney, Y.**, Khoussine, J., and Herzog, E. (2017) "A Guide for Undergraduates to the Society for Neuroscience Annual Meeting" *Journal for Undergraduate Neuroscience Education*. 15(2):E10-E12
9. **Courtney, Y.** et al. (2014) "Improving weight-length relationship in fish to provide more accurate bioindicators of ecosystem condition" *Aquatic Science and Technology*. 2(2):41-51.

Invited Talks

05/2024

Rising Stars in Neuroscience Symposium
University of Utah
Disrupted Development: How Maternal Stressors Alter Embryonic Brain Formation via Choroid Plexus Secretion

05/2024

Stanford Postdoctoral Recruitment Initiative in Science and Medicine
Stanford University
Disrupted development: how maternal exposures dysregulate embryonic brain formation via choroid plexus secretion

04/2024

Boston Children's Hospital Pathology Retreat
Boston, MA
A Choroid Plexus Apocrine Secretion Mechanism Instructs Embryonic Brain Development

Invited Talks

11/2023
Boston Children's Hospital Kirby Neurobiology Center Retreat
Boston, MA
Signals Making a Splash: How the Choroid Plexus Harnesses Cerebrospinal Fluid for Developmental Communication.

08/2023
WUSTL ENDURE Alumni Datablitz
St. Louis, MO
Signals Making a Splash: How the Choroid Plexus Harnesses Cerebrospinal Fluid for Developmental Communication.

06/2023
Cerebral Vascular Biology 2023
Uppsala, Sweden
A Choroid Plexus Apocrine Secretion Mechanism Modulates Cerebrospinal Fluid Proteome and Instructs Cortical Development.

05/2023
Association of Biomolecular Resource Facilities Annual Meeting
Boston, MA
A Choroid Plexus Apocrine Secretion Mechanism Modulates Cerebrospinal Fluid Proteome and Instructs Cortical Development

02/2023
Gordon Research Seminar: Physiological and Pathological Mechanisms of the Mucociliary System
Lucca, Italy
A Choroid Plexus Apocrine Secretion Mechanism Modulates Cerebrospinal Fluid Contents and Instructs Cortical Development

02/2023
Gordon Research Conference: Regulation and Function of Mucociliary Interactions in Development and Disease
Lucca, Italy
Signals Making a Splash: How the Choroid Plexus Harnesses Cerebrospinal Fluid for Developmental Communication.

10/2022
Kent State University Brain Health Research Institute 10th Annual Neuroscience Symposium
Kent, OH
Preparing for and Applying to Graduate School

05/2022
Harvard Medical School Pathology Academic Celebration
Boston, MA
Signals Making a Splash: How the Choroid Plexus Harnesses Cerebrospinal Fluid for Developmental Communication

12/2021
Boston Children's Hospital Pathology Department Data Talks
Boston, MA
A Choroid Plexus Apocrine Secretion Mechanism Modulates Cerebrospinal Fluid Contents and Instructs Cortical Development

11/2016
Morality, Moral Philosophy, and the Humanities in the Age of Neuroscience
Kent, OH
The Methodological Pursuit of Lived Experience

03/2014
Ohio Junior Science & Humanities Symposium
Bowling Green, OH
Improving Weight-Length Relationships in Fish to Provide More Accurate Bioindicators of Ecosystem Condition

Conference Abstracts

07/2024 A Choroid Plexus Apocrine Secretion Mechanism Instructs Embryonic Brain Development. *Gordon Research*

Conference Abstracts

Seminar. Cellular Beginnings, Circuit Endings: Building Diverse Nervous Systems in Development 2024 Lucca, Italy.
07/2024 A Choroid Plexus Apocrine Secretion Mechanism Instructs Embryonic Brain Development. *Gordon Research Conference. Developmental Basis of Nervous System Diversity: Molecular, Cellular, and Organismal Levels 2024, Lucca, Italy.*
02/2024 A Choroid Plexus Apocrine Secretion Mechanism Instructs Embryonic Brain Development. *Howard Hughes Medical Institute Investigator Meeting, Janelia Research Campus, Ashburn, VA USA.*
11/2023 A Choroid Plexus Apocrine Secretion Mechanism Alters Fetal Cerebrospinal Fluid Proteome and Instructs Cortical Development. *Neuroscience 2023, Washington, DC.*
10/2023 A Choroid Plexus Apocrine Secretion Mechanism Alters Fetal Cerebrospinal Fluid Proteome and Instructs Cortical Development. *Kent State Brain Health Research Institute Annual Meeting, Kent, OH.*
09/2023 A Choroid Plexus Apocrine Secretion Mechanism Alters Fetal Cerebrospinal Fluid Proteome and Instructs Cortical Development. *HHMI Gilliam Fellows Meeting, Ashburn VA.*
09/2023 A Choroid Plexus Apocrine Secretion Mechanism Alters Fetal Cerebrospinal Fluid Proteome and Instructs Cortical Development. *Severe Mental Illness: Towards Therapeutics Symposium. Broad Institute, Cambridge MA.*
07/2023 A Choroid Plexus Apocrine Secretion Mechanism Alters Fetal Cerebrospinal Fluid Proteome and Instructs Cortical Development. *2023 Writing Your Own Blueprint: The NIH Blueprint Diversity Conference. Virtual.*
06/2023 Signals Making a Splash: How the Choroid Plexus Harnesses Cerebrospinal Fluid for Developmental Communication. *Cerebral Vascular Biology 2023, Uppsala, Sweden.*
04/2023 Signals Making a Splash: How the Choroid Plexus Harnesses Cerebrospinal Fluid for Developmental Communication. *Boston Children's Hospital Pathology Research Retreat, Dedham, MA.*
02/2023 A Choroid Plexus Apocrine Secretion Mechanism Modulates Cerebrospinal Fluid Contents and Instructs Cortical Development. *Gordon Research Seminar: Physiological and Pathological Mechanisms of the Mucociliary System 2023, Lucca, Italy.*
02/2023 Signals Making a Splash: How the Choroid Plexus Harnesses Cerebrospinal Fluid for Developmental Communication. *Gordon Research Conference: Regulation and Function of Mucociliary Interactions in Development and Disease 2023, Lucca, Italy.*
12/2022 Signals Making a Splash: How the Choroid Plexus Harnesses Cerebrospinal Fluid for Developmental Communication. *HHMI Investigator Meeting, Ashburn, VA.*
10/2022 Signals Making a Splash: How the Choroid Plexus Harnesses Cerebrospinal Fluid for Developmental Communication. *HMS Pathology Retreat, Boston, MA.*
04/2019 The Production and Localization of Luteinizing Hormone in the Brain. *Kent State Undergraduate Research Symposium 2019, Kent, OH.*
11/2018 The Influence of Genetics on Individual Differences in Neural Activation Patterns. *Society for Neuroscience Annual Meeting 2018, San Diego, CA.*
08/2018 Investigating the function of Schizophrenia Risk Gene Csmd1. *Society for the Advancement of Chicanos/Hispanics and Native Americans in Science 2018, San Antonio, TX.*
08/2018 Investigating the function of Schizophrenia Risk Gene Csmd1. *Broad Institute Summer Research Symposium, Cambridge, MA.*
11/2017 The Influence of Genetics on Individual Differences in Neural Activation Patterns. *Annual Biomedical Research Conference for Minority Students 2017, Phoenix, AZ.*
11/2017 Reward vs. Punishment: an fMRI Analysis Approach to Identifying the Neural Substrates of Motivation and Cognitive Control. *Society for Neuroscience Annual Meeting 2017, Washington, DC.*
04/2017 Reward vs. Punishment: an fMRI Analysis Approach to Identifying the Neural Substrates of Motivation and Cognitive Control. *Fifth Annual Neuroscience Symposium at Kent State University, Kent, OH.*

Awards

11/2024 Schmidt Science Fellows | Finalist
05/2024 Certificate of Distinction in Teaching - Fall 2023 "The Neurobiology of Behavior" - Harvard University
10/2023 Graduate Student Poster Presentation - First Place, $50 - 11th Annual Neuroscience Symposium, Brain Health Research Institute at Kent State University.
09/2023 Trainee Professional Development Award, $1300 -Society for Neuroscience, to support attendance to Neuroscience 2023.
05/2023 Certificate of Distinction in Teaching - Fall 2022 "The Neurobiology of Behavior" - Harvard University
02/2023 Carl Storm Underrepresented Minority Fellowship Travel Award, $1,270 - Gordon Research Conferences
01/2023 Professional Development Travel Award, $2,315 - Harvard Graduate School of Arts and Sciences
10/2022 Best Poster Award for "Signals Making a Splash: How the Choroid Plexus Harnesses Cerebrospinal Fluid for Developmental Communication" - Harvard Medical School Pathology Retreat
09/2022 Excellence in Service Award, $500 - Harvard Program in Neuroscience
05/2022 "Spirit of Pathology" Research Award - Presented annually by the Boston Children's Hospital Department of

Awards

Pathology to the person who has contributed the most to the academic, social, and professional environment in the Department of Pathology Research Division.
01/2022 Certificate of Distinction in Teaching - Fall 2021 "The Neurobiology of Behavior" - Harvard University
09/2021 Certificate of Distinction in Teaching - Spring 2021 "Cellular Basis of Neuronal Function" - Harvard University
07/2021 Gilliam Fellowship for Advanced Study, $159,000 - Howard Hughes Medical Institute
06/2021 Neuroscience Scholars Program Associate, $1,000 - Society for Neuroscience
03/2021 Graduate Research Fellowship, $138,000 - National Science Foundation
04/2019 Best Poster Award for "*The Production and Localization of Luteinizing Hormone in the Brain*" - Kent State Undergraduate Research Symposium
04/2019 Judith Koonce Award for Outstanding Graduating Senior, $500—Kent State Department of Biological Sciences
01/2019 Graduate Prize Fellowship - Harvard Graduate School of Arts and Sciences
11/2018 Society for Neuroscience Annual Meeting Travel Award for poster *"The Influence of Genetics on Individual Differences in Neural Activation Patterns*"—Faculty for Undergraduate Neuroscience
08/2018 Best Poster Award for *"Investigating the Function of Schizophrenia Risk Gene Csmd1"* - Society for the Advancement of Chicanos/Hispanics and Native Americans in Science
08/2018 Palmer Honors Research Scholarship, $1,000—Kent State University
04/2018 Dickie-Nelson Scholarship, $500—Kent State University Department of Biology
11/2017 Poster Presentation Award for *"The Influence of Genetics on Individual Differences in Neural Activation Patterns"* - Annual Biomedical Research Conference for Minority Students
08/2017 Opportunity Scholarship, $1,000—GAR Foundation
08/2017 ML Weixel Noval Endowed Scholarship, $4,000—Kent State University
04/2017 Poster Presentation Award for *"Reward vs. Punishment: an fMRI Analysis Approach to Identifying the Neural Substrates of Motivation and Cognitive Control*" - Fifth Annual Neuroscience Symposium at Kent State University
08/2016 Marie Barzan Scholarship for Women in Science, $2,400 - Kent State University
08/2015 Honors Scholarship, $21,250 - Kent State University
08/2015 Trustee Scholarship, $16,000 - Kent State University
08/2015 Ohio College Opportunity Scholarship, $1,300 - Ohio Department of Higher Education
05/2014 Fourth Place in Environmental Sciences, $10,000 for *"Improving Weight-Length Relationships in Fish to Provide More Accurate Bioindicators of Ecosystem Condition"*- Intel International Science and Engineering Fair (ISEF)
05/2014 Best Project for *"Improving Weight-Length Relationships in Fish to Provide More Accurate Bioindicators of Ecosystem Condition"* - Americal Chemical Society, ISEF.
05/2014 Best Project for *"Improving Weight-Length Relationships in Fish to Provide More Accurate Bioindicators of Ecosystem Condition"* - Consortium for Ocean Leadership, ISEF.
05/2014 Best Project for *"Improving Weight-Length Relationships in Fish to Provide More Accurate Bioindicators of Ecosystem Condition"* - American Statistical Association, ISEF.

Science Communication and Teaching

12/2022 – present
Boston, United States

Science Writer
Harvard Science in the News Blog
Produced compelling articles covering a diverse range of scientific topics, such as wastewater surveillance, ketogenic diet risks, and post-acute viral syndromes.

04/2020 – present
Boston, United States

Managing Editor
Harvard Science in the News Blog
Managed a team of 3 editors for a science publication. | Oversaw 5-6 publications/year, ensuring timely delivery and high-quality output. | Conducted in-depth research and fact-checking to ensure the accuracy of all articles.

06/2023 – 03/2024
Cambridge, United States

Content Developer
Harvard Office of the Vice Provost for Advances in Learning
Adapted the Harvard undergraduate course "The Neurobiology of Behavior" into a fully online offering "Fundamentals of Neuroscience" on the EdX platform through HarvardX | https://www.edx.org/learn/neuroscience/harvard-university-fundamentals-of-neuroscience-part-1-the-electrical-properties-of-the-neuron

08/2022 – 12/2023
Harvard University,
Cambridge, MA

Head Teaching Fellow
MCB80 "Neurobiology of Behavior"
Developed and implemented innovative curricula, hands-on workshops, and homework assignments for 265 students as Head Teaching Fellow. | Led and supervised a team of

Science Communication and Teaching

14 Teaching Fellows, providing guidance and distributing weekly information on section topics, meetings, and grading. | Taught and facilitated engaging and interactive classroom discussions, activities, and assessments in alignment with course objectives.

08/2020 – 12/2021
Harvard University,
Cambridge, MA

Teaching Fellow
MCB80 "Neurobiology of Behavior"

Demonstrated expertise in neurobiology as a Teaching Fellow for 2 years. | Developed and executed lesson plans for 75-minute weekly sections for 12-15 undergraduates. | Collaborated with course instructors to create exams and grade problem sets. | Covered topics including neurobiology of perception, learning, memory, emotion, and neurologic disorders.

06/2021 – 08/2022
Harvard University,
Cambridge, MA

Teaching Fellow
BIOS S50 "Foundations of Neuroscience"

Conducted 75-minute weekly sections for undergraduate students, utilizing Zoom platform to facilitate engagement and instruction. | Developed and executed lesson plans for a comprehensive neuroscience course focused on the molecular, cellular, circuit, and behavioral aspects of the brain. | Assessed and graded coursework, including exams, presentations, and written assignments. | Successfully taught the course on two separate occasions.

01/2021 – 05/2021
Harvard University,
Cambridge, MA

Teaching Fellow
MCB115 "Cellular Basis of Neuronal Function"

Mentored cohort of 12 undergraduate students by delivering comprehensive 75-minute lectures on electrical, molecular, and cellular processes of neurons. | Maintained high engagement levels for remote learning by utilizing Zoom and other digital tools to foster dynamic and interactive class environments. | Contributed to course materials by assisting in creating exams and problem sets. | Explored topics including excitable membranes, neurotransmission, ion channels, dendritic integration, intracellular signaling, and synaptic plasticity in the context of real cells and brain circuits.

08/2017 – 05/2019

Peer Tutor
Kent State University Academic Success Center

Demonstrated proficiency in peer tutoring for an extensive range of subjects, including Pre-calculus, Calculus I, General Chemistry I and II, Physics I and II, Statistics, Organic Chemistry I and II, Inorganic Chemistry, Neuroscience, Biological Foundations, Cellular Biology, Molecular Biology, Genetics, General Psychology, Child Psychology, Abnormal Psychology, and Evolution.

Publications - Science Journalism

03/2024

Long COVID: The latest in a series of unexplained post-acute infectious syndromes?
Science in the News

https://sitn.hms.harvard.edu/flash/2024/long-covid-the-latest-in-a-series-of-unexplained-post-acute-infectious-syndromes/

05/2023

Keto - It's Probably Not Right for You
Science in the News

https://sitn.hms.harvard.edu/flash/2023/keto-its-probably-not-right-for-you/

03/2023

Something in the Sewage: What watching our wastewater can tell us about infectious diseases
Science in The News

https://sitn.hms.harvard.edu/uncategorized/2023/something-in-the-sewage-what-watching-our-wastewater-can-tell-us-about-infectious-diseases/

Publications - Science Journalism

07/2021

Burgers, Bartending and Benchwork: My Journey to Graduate School
Harvard Brain Science Initiative
https://brain.harvard.edu/hbi_news/burgers-bartending-and-benchwork-my-journey-to-graduate-school/

Outreach & Service

10/2022 – present

Scientific Advisory Board Member
Kent State Brain Health Research Institute
Advise the BHRI director on the overall goals and direction of the Institute. | Participate in annual Institute review, evaluating the progress of its flagship programs. | Consult and provide input on long-term planning for the Institute. | Mentor current students and recent Kent State graduates, offering exceptional career guidance and advice as necessary

07/2021 – 12/2024

Student Mentor
Harvard University Research Scholar Initiative/PiNBAC
Mentored post-baccalaureate students in GSAS Research Scholar Initiative program. | Provided feedback on students' research presentations and scientific thinking skills. | Tailored mentoring for students interested in pursuing doctoral studies.

06/2020 – present

Mentor, Mock Interviewer
Project SHORT
Mentor disadvantaged college students one-on-one through grad school admissions. | Critique and revise application materials to ensure the strongest possible presentation of each candidate. | Develop application timelines to keep students organized and on track. | Conduct mock interviews to help students feel comfortable and confident during the real application process.

05/2020 – present

Mentor, Application Reviewer, NSF-GRFP Reviewer, Mock Interviewer
Cientifico Latino Grad School Mentorship Initiative
Provide underrepresented students 1-on-1 guidance throughout the PhD application process with a high success rate of applicants accepted into graduate school. | Cultivate positive relationships with students, providing a supportive and encouraging environment throughout the application process. | PhD Program application reviewer for one cycle (8 applications) | NSF-GRFP application reviewer and consultant for two cycles (6 applications) | Mock interviewer for PhD program interviews for three cycles (12 interviews)

01/2023 – 01/2024
Boston, USA

Student Interviewer
Harvard Program in Neuroscience
Assisted Harvard's Ph D Program in Neuroscience Admissions Committee by interviewing prospective students during recruitment weekend. | Performed 40-minute interviews with recruits, assessing potential to thrive in PhD program.

08/2021 – 09/2024

Peer Mentor
Harvard Program in Neuroscience
Provided culturally aware mentorship to first- and second- year PiN students as a peer mentor. | Organized panels on topics relevant to graduate school including rotations, choosing a lab, prequalifying exam preparation, and work-life balance.

03/2021 – 03/2024

Treasurer
Underrepresented Scholars in Neuroscience (USN) at Harvard
Managed financial accounts and budget for USN, an organization committed to fostering an inclusive and supportive community for neuroscience scholars from traditionally underrepresented backgrounds at Harvard University. | Secured funding from external sources and managed relationships with sponsors to ensure compliance with grant requirements and achieve financial sustainability. | Monitored financial performance, prepared regular financial reports, and presented budget updates to the executive board.

Outreach & Service

05/2021 – 08/2022
Boston, MA

Peer Mentor Coordinator, Research Mentor
Harvard Summer Honors Undergraduate Research Program

Coordinated the peer mentor program for a 10-week summer program at Harvard Medical School, matching disadvantaged college students with suitable mentors to provide training and mentorship in scientific research. | Led professional development events such as journal clubs and provided regular check-ins with students to ensure they were maximizing the available resources.

Served as an in-lab research mentor to SHURP students in both 2021 and 2022, providing guidance and instruction on techniques, data collection, and preparation of abstracts, posters, oral presentations, and NSF proposals related to their research.

2019 – 2024

Invited Panelist: Graduate school application process and decision making
WUSTL ENDURE

09/2020 – 06/2022

Visiting Classroom Scientist
Skype A Scientist

Delivered engaging and informative lectures on neuroscience to sixteen middle school science classes across various locations including California, Washington, rural Virginia, and the UK, as a Visiting Classroom Scientist for Skype a Scientist. | Shared interesting facts about the brain and diverse career paths in neuroscience, inspiring students to consider science as a viable career option.

Other Work Experience

08/2021 – present
Boston, MA

Bartender
Self-Employed Contractor

Bartender/hostess for a range of upscale events: weddings, corporate dinners, parties, Poker games and tournaments

12/2019 – present
Boston, MA

Freelance Application Consultant

Collaborate with students and parents to develop and refine various application materials across various academic levels. | Facilitate preparation of application materials for boarding schools (middle and high school), college, college transfers, summer research internships, and graduate school. | Advise on strategies to enhance the competitiveness of application materials. | Offer line editing services to ensure written content clarity, coherence, and precision.

08/2015 – 08/2019
Stow, OH

Bartender, Server, Host, Kitchen
Bellacino's of Stow

Bartended for 2.5 years (2017-2019) while consistently exceeding customer expectations and increasing sales volume. | Utilized culinary skills to perform various tasks in the kitchen, including line cooking, oven operation, and food preparation. | Exhibited excellent communication and customer service skills as a take-out staff, host, and server, delivering a positive and memorable dining experience. | Maintained a flexible work schedule of approximately 30 hours per week while completing full time undergraduate coursework

08/2013 – 12/2015
Aurora, OH

Shift Manager
Wendy's Fast Food Restaurants

Ensured food safety, optimized labor and scheduling, and managed food cost and orders to meet franchise goals for sales, cleanliness, and service times. | Led and motivated a high-performing team of employees to achieve exceptional results (best location in the franchise!). | Maintained an average of 50 hours per week with a strong work ethic and a proactive approach to problem-solving. | Effectively balanced multiple responsibilities and priorities, including managing inventory, supervising staff, and providing exceptional customer service (and, for one semester, a full time undergraduate courseload).

In the News

006 Navigating the Hidden Curriculum with Dr. Ya'el Courtney | Monae the Creator

Grassroots Science Communication in long COVID | Fancy Comma

001 Navigating the Hidden Curriculum with Ya'el Courtney | Monae the Creator

Grad School 101: Applying to Fellowships | Cientifico Latino

Of Mice and Moms | Harvard GSAS Voices

PreLights: Choroid Plexus Apocrine Secretion

A Guide to Biomedical PhD Applications: Ya'el Courtney

NINDS Building Up The Nerve Podcast S4E1: Demystifying Undergraduate Research

Harvard Brain Science Initiative Interview

Webinar: What to Expect in Graduate School

2021 HHMI Gilliam Fellows Announcement

Young People Want You To Talk About Mental Health During This Pandemic

Things I wish I'd known from Day 1 of my PhD: Collected Advice

"From Kent to Cambridge: Alumna Ya'el Courtney to Study Neuroscience at Harvard University" 2019

"Next Step: Harvard" 2019

"Kent State Student Making a Name for Herself after Years of Personal Struggles" 2018

"Kent State Student to Take Part in Neuroscience Program" 2018

"Neuroscience Research Collaborates with English Department in New Study" 2018

Affiliations and Professional Memberships

- Harvard Graduate Women in Science and Engineering - Member
- Harvard Science Policy Research and Advocacy Group (SPRAG) - Member
- Harvard Underrepresented Scholars in Neuroscience - Treasurer
- Social Issues in Biology Journal Club at Harvard - Member
- Society for the Advancement of Chicanos and Native Americans in Science - Member
- Society for Neuroscience - Member
- Mensa International - Member
- Phi Beta Kappa Honor Society - Alumni Member
- Phi Sigma Pi National Honor Society - Alumni Member

Skills

– LABORATORY SKILLS

immunohistochemistry

in situ hybridization

RT-qPCR

Immunoassays/ELISA

cloning/PCR

western blots

confocal microscopy

expansion microscopy

cryosectioning

mouse embryonic CSF collection

mouse brain dissection

mouse handling/husbandry

single cell RNA sequencing/analysis

cell/tissue culture

in vivo multiphoton imaging

– COMPUTER SKILLS

Matlab

R

C shell scripting

Test Scores

ACT 35
SAT 2310
IQ (Stanford-Binet) 145
CogAT 136