

Biology AT IOWA

POINTS OF INTEREST | ISSUE 2 | 2024

PROMOTIONS & NEW HIRES



Olivia (Liv) Fortman

Liv Fortman joined the Department of Biology in August 2024 as a Research Intern in **Katheryn Rothenberg's** lab.



Leah Fuller

Leah Fuller joined the [Developmental Studies Hybridoma Bank \(DSHB\)](#) in July 2024 as a full-time Research Associate. Leah has over 20 years of experience in the Department of Biology and was most recently in the Weiner Lab since 2012. She previously worked in the Dailey Lab as a Research Assistant starting in 2001.

Kayla Garcia

Kayla Garcia joined the [Developmental Studies Hybridoma Bank \(DSHB\)](#) in August 2024 as a Research Assistant in the production lab.



Anna Gaw

Anna Gaw, Senior Academic Advisor for the Department of Biology, has been promoted to Assistant Director with the College of Liberal Arts and Sciences Academic Advising.



Mo Ibrahim

Mo Ibrahim joined Information Technology Services (ITS) at the University of Iowa in September 2024 and became an IT Support Analyst for the Department of Biology in October 2024.



Brenda (Bren) Linley

Bren Linley joined the Department of Biology as a Senior Academic Advisor in August 2024. Bren has been an advisor for the Department of Microbiology and Immunology since September 2023 and will continue to advise students there along with Biology students.



Christopher Tucker

Chris Tucker joined the Department of Biology in August 2024 as Greenhouse Manager.

2024-2025 INCOMING GRADUATE STUDENTS

The Department of Biology welcomed 15 new graduate students into the Integrated Biology (iBio) Graduate Program for the 2024-2025 academic year.

iBio Ph.D. Students



Elizabeth Martin



Hamza Mohammed



Brianna O'Donnell



Brie Salloum



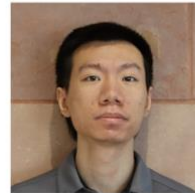
Dakota Thompson



Emma Valcourt



Rebekah Yarvis



Zhenshen Zhang

iBio M.S. Students



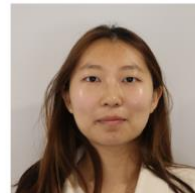
Nicholas (Cole) Kerns



Hubert Kicinski



Margaret (Maisie) Laughlin



Yiwei Li



Lily McGettigan



Emily O'Brien



Oluwasegun
(Segun) Oladapo

NEW GRANT AWARDS

Sarit Smolikove (Principal Investigator), Michael Dailey (Co-Principal Investigator), Bryan Phillips (Co-Principal Investigator), Tina Tootle (Co-Principal Investigator)

Title: MRI: Track 1: Acquisition Of A Field-scanning Spinning Disk Confocal Imaging System For Super-resolution And Live Imaging Of Biological Systems

Sponsor: National Science Foundation (NSF)

Award Type: New

Total Award: \$848,348.00

Project Period: 3 years (9/1/2024 – 8/31/2027)



Andrew Forbes
Professor of Biology

Title: How do gall-forming insects escape diverse and evolving clades of parasitic wasps - and how do parasites catch up?

Sponsor: National Science Foundation (NSF)

Award Type: New

Role: Principal Investigator

Total Award: \$898,359.00

Project Period: 4 years (8/1/2024-7/30/2028)



Sarit Smolikove
Professor of Biology

Title: Protection from cosmic radiation

Sponsor: Institute for Medical Research, Inc.

Award Type: New

Role: Principal Investigator

Total Award: \$200,000

Project Period: 9/1/2024 – 5/31/2027

HONORS & AWARDS

Lori Adams

Professor of Instruction in the Department of Biology and Director of the Iowa Sciences Academy (ISA)

Lori Adams received the [Distinguished Professor of Instruction Award](#) during the annual Fall Faculty Meeting.

Adriana Castellano

Undergraduate Research in Neiman Lab (Biology) and Iowa Sciences Academy student

Adriana Castellano received Honorable Mention (4th Place) in the Iowa Sciences Academy (ISA) poster competition for her poster, "Putting Snails to Sleep for Science: Refining Anesthesia Techniques for Regeneration Research," at the 2024 Summer Undergraduate Research Conference held at the Iowa Memorial Union on the University of Iowa campus on July 24, 2024.

Amr El Zawily

Assistant Professor of Instruction

Amr El Zawily, the Primary Instructor for the introductory biology course, Foundations of Biology, received a CURE TAPESTRY Fellowship for the 2024-2025 academic year. With this fellowship, Dr. El Zawily is currently working with his peers to develop and field-test a CURE (Course-Based Undergraduate Research Experience) teaching assistant (TA) professional development resource for Foundations of Biology. The fellowship provides travel support for Dr. El Zawily to attend both a kick-off workshop as well as a conference of his choice. He is now a member of the CURE TAPESTRY network, a community of professionals interested in promoting the advancement of teaching, professional development, and scholarship that impacts the growth of teaching assistants and other shareholders in the CUREs space.

Erin Irish

Associate Professor of Biology and Director of Undergraduate Studies

Erin Irish collaborated with members of the UI Department of Chemistry on a new patent entitled, "Compounds and methods for improving plant growth and crop yield." Like animals, plants are killed by moderate to high concentrations of hydrogen sulfide (H₂S), but at very low doses this gas improves many aspects of plant growth. This invention is a set of compounds that provide gradual release of H₂S gas at levels beneficial to plants yet not harmful to animals (including humans), with degradation products that are safe for the environment. Explore the full patent here:

<https://patents.google.com/patent/US12016336B2/en>

Julianna Koenig (Summers Lab)

Ph.D. student in the Interdisciplinary Graduate Program in Genetics

Julianna Koenig received the 2nd Place Oral Presentation at the 2024 Genetics Program's Annual Student Retreat held on Saturday, September 28. The title of Julianna's presentation was, "Development of an in-vitro Model for Charcot-Marie-Tooth Disease."

Clare Mulcahy (Neiman Lab and Iowa Sciences Academy)

Ph.D. student in the Integrated Biology (iBio) Graduate Program

[Clare Mulcahy](#) received a [graduate assistantship](#) with the [Iowa Sciences Academy \(ISA\)](#) focused on community engagement. ISA is home to a range of programs that support the success of undergraduate students interested in research and scientific communication. Mulcahy is passionate about helping others get the most out of their scientific research experiences and wants to support undergraduate students in their research. "I want to develop my teaching and mentoring skills while also helping others learn how to communicate about science more effectively," she said in her application. "The ISA Graduate Assistantship position would also provide opportunities to apply science communication skills in a wider variety of settings."

The [College of Liberal Arts and Sciences](#) awarded seven graduate assistantships to doctoral students in writing, editing, community engagement, and marketing. These positions, part of a five-year pilot project, provide doctoral students unique opportunities to participate in the College's outreach, engagement, and writing missions in ways designed to diversify and transform graduate career preparation.

Maurine Neiman

Professor of Biology

Maurine Neiman was a nominee for the Hancher-Finkbine Medallion. The criteria for selection and nomination of this award are based on learning, leadership, and loyalty.

Lily Schaefer

Undergraduate Researcher majoring in Biology and Iowa Sciences Academy student

Lily Schaefer received 1st Place in the Iowa Sciences Academy (ISA) poster competition for her poster, "Effects of Salt and Pathway Inhibitors on Trachea Epithelial Cell Differentiation," at the 2024 Summer Undergraduate Research Conference held at the Iowa Memorial Union on the University of Iowa campus on July 24, 2024.

Bhoomika Shettigar

Undergraduate Researcher majoring in Neuroscience and Iowa Sciences Academy student

Bhoomika Shettigar received Honorable Mention (4th Place) in the Iowa Sciences Academy (ISA) poster competition for her poster, "Relations Between Green Space

Access and Children's Cognitive Performance," at the 2024 Summer Undergraduate Research Conference held at the Iowa Memorial Union on the University of Iowa campus on July 24, 2024.

Danielle Talbot (Tootle Lab)

Ph.D. student in the Cell and Developmental Biology Graduate Program

Danielle Talbot received a [Ballard and Seashore Dissertation Fellowship](#) from the UI Graduate College for the Fall 2024 semester.

Dakota Thompson (new graduate student on rotations)

Ph.D. student in the Integrated Biology (iBio) Graduate Program

Dakota Thompson received an [Iowa Recruitment Scholarship](#) from the UI Graduate College.

Maggie Tinman (Smolikove Lab)

Undergraduate Researcher majoring in Biology

Maggie Tinman, majoring in Biology (B.S. in Genetics and Biotechnology track), was awarded an Independent Creative Research by Undergraduates (ICRU) Fellowship from the Office of Undergraduate Research for the summer of 2024.

Brady Williquett (Manak Lab)

Ph.D. student in the Integrated Biology (iBio) Graduate Program

Brady Williquett received a [Post-Comprehensive Fellowship](#) from the UI Graduate College for the Fall 2024 semester.

Israel Wipf (Tootle Lab)

Ph.D. student in the Cell and Developmental Biology Graduate Program

Israel Wipf received the Best Poster award at the Holden Comprehensive Cancer Center Scientific Retreat (June 2024). The title of Israel's poster was, "The Role of Lipid Droplets and ATGL During In Vivo Collective Cell Migration."

SUMMER 2024 GRADUATES

The following Ph.D. and M.S. students in the Department of Biology graduated in Summer 2024. Congratulations to all of these students on their achievements and hard work!



Abhishiktha Godthi (Prahlad Lab)

Ph.D. in Integrated Biology

Dissertation Title: "Neuronal IL-17 Controls *C. elegans* Developmental Diapause Through CEP-1/p53"



Camille Hanes (Weiner/Dailey Labs)

Ph.D. in Neuroscience

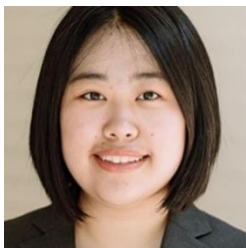
Dissertation Title: "The γ -Protocadherin Family of Cell Adhesion Molecules Regulates Neurodevelopment via Shared and Isoform-Specific Mechanisms"



Ryan Pellow (Comeron Lab)

Ph.D. in Integrated Biology

Thesis Title: "Impact of *de novo* Transposition on the *Drosophila melanogaster* Genome: Effects on the 3D Nuclear Architecture and Telomere Dynamics"



Hanxi Tang (He Lab)

M.S. in Integrated Biology

Thesis Title: "Divergence of Acquired Stress Resistance among Yeast Species and Establishing a Flow Cytometry-based Assay for Post-Stress Survival Quantification"



Emma Thornburg-Suresh (Summers Lab)

Ph.D. in Neuroscience

Thesis Title: "Unraveling the Role of Stathmin-2 Palmitoylation in Maintaining Axon Health"

ALUMNI HIGHLIGHT



Jorge Moreno

Neiman Lab

Jorge Moreno, who earned a Bachelor of Science in Biology (Evolutionary Biology track) in 2018, was recently featured by the University of Iowa on his journey from being a child of migrant laborers to earning his doctorate degree while overcoming many challenges along the way. “My life has been filled with many firsts and unexpected paths, but I’ve learned that success comes from the willingness to challenge ourselves,” says Moreno. Read the [full story](#) by Richard Lewis, Senior Writer/Editor with the UI Office of Strategic Communication.

CONFERENCE PRESENTATIONS

Michelle Giedt (Tootle Lab)

Lab Manager/Assistant Research Scientist

Poster presentation at the FASEB (Federation of American Societies for Experimental Biology) Science Research Conference, Lipid Droplets: From Mechanisms to Disease, St. Paul, MN, July 21-25, 2024.

Title: “Lipid Droplet Proteins Promote Actin Remodeling by Multiple Prostaglandin-Dependent Pathways During *Drosophila* Oogenesis”

Tina Tootle

Chair and Professor, Department of Biology

Oral presentation at the Nuclear Actin Symposium, Abu Dhabi, United Arab Emirates, May 30, 2024.

Title: “*Defining the functions and regulation of actin in the nucleolus.*”

Israel Wipf (Tootle Lab)

Ph.D. student in the Cell and Developmental Biology Graduate Program

Lightning talk and poster presentation at the FASEB (Federation of American Societies for Experimental Biology) Science Research Conference, Lipid Droplets: From Mechanisms to Disease, St. Paul, MN, July 21-25, 2024.

Title: “Lipid Droplet Proteins ATGL and Jabba Promote In Vivo Collective Cell Migration in *Drosophila*”

2024 Summer Undergraduate Research Conference

Several undergraduate students affiliated with the Department of Biology and/or the Iowa Sciences Academy presented at the 2024 Summer Undergraduate Research Conference held on Wednesday, July 24, 2024. For the full list of student presenters, visit <https://grad.uiowa.edu/2024-poster-presentations>.

FACULTY SEMINARS

Alan Kay

Professor of Biology

The Marine Biology Laboratory (Physiology course), Woods Hole, MA

Title: "Late night thoughts on osmosis: a phenomenon that intrigued Jacques Loeb"

Date: July 2024

Maurine Neiman

Professor of Biology

Iowa Immunization Summit, Ankeny, IA

Title: "JJ's Story"

Date: September 9, 2024

Grand Rounds, Children's Minnesota, St. Paul, MN

Title: "Sudden Unexplained Death in Childhood (SUDC), Slowly Unraveling the Mystery"

Date: August 1, 2024

SPECIAL RECOGNITION & NOTEWORTHY EVENTS



Lori Adams

Lori Adams, Professor of Instruction in the Department of Biology and Director of the [Iowa Sciences Academy](#) (ISA), will serve as a Provost Faculty Fellow. Dr. Adams was selected as [one of five faculty fellows](#) for 2024-2025 from the UI Office of the Provost to work on various faculty and student success projects related to the [UI 2022-2027 Strategic Plan](#). In her role, Dr. Adams will enhance faculty and student success initiatives, such as developing a Teaching Portfolio Toolkit and collaborating on projects to enhance

support and incentives for teaching excellence. She will also develop a mentoring framework for faculty and increase formal mentor training opportunities on campus.

Dr. Adams joined the University of Iowa in 2009. She directs several undergraduate research programs and is the instructor-designer for several student scientist development courses. Her work focuses on enhancing undergraduate biology education through research experience opportunities, mentoring, and scientific teaching. She has also spent more than a decade championing the importance of mentorship in academia for faculty, staff, and students.



Faculty Spotlight: Sarit Smolikove

Sarit Smolikove was recently featured as one of three faculty members in the College of Liberal Arts and Sciences. Learn about Dr. Smolikove and her research [here](#).

Professor Phillips holds Responsible Conduct of Research Workshop



Department of Biology Professor, **Bryan Phillips**, held a workshop on conduct of research, focusing on ethics, rigor, and reproducibility in scientific research. Professor Phillips has extensive expertise in cell and developmental biology utilizing the model organism, *Caenorhabditis elegans*, in his research. He emphasized to the students in attendance the importance of maintaining ethical standards in research involving model organisms. A portion of the workshop was dedicated to discussing the

benefits and challenges of working with animals in research. Dr. Phillips highlighted the ethical considerations and regulatory requirements researchers must adhere to, ensuring the humane treatment and welfare of the animals. He also discussed the importance of transparency and accountability in research practices to uphold public trust and scientific integrity. The event was organized by the [Iowa Sciences Academy \(ISA\)](#), which has a range of programs that support the success of undergraduate students interested in research and scientific communication.

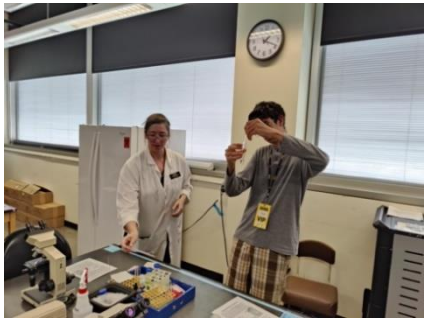
Department of Biology collects most donations for Rival Against Hunger Food Drive Competition

The annual Rival Against Hunger Food Drive Competition between the University of Iowa and Iowa State University was held September 3-13, 2024. The Department of Biology participated in the competition, which supports the Food Pantry at Iowa, and collected the most items across all UI departments/programs. The University of Iowa also won the overall competition collecting 2,558 items (totaling 1,258 lbs) compared to Iowa State's 323 items. Thank you to everyone who participated and for your support of the Food Pantry!



Biology participates in Top Scholar Visit Day

The Department of Biology participated in a Top Scholar Visit Day on July 19, 2024, coordinated by the Office of Admissions. High school students and their guests from across the U.S. visited the University of Iowa to receive a tour of campus and participate in various sessions throughout the day. The Department of Biology offered a session to interested students including a tour of the department, visiting a faculty research lab and learning about undergraduate research opportunities, and performing hands-on activities such as a DNA extraction experiment.



Iowa Sciences Academy Spring 2024 Graduates

The Iowa Sciences Academy (ISA) recognized 13 graduating seniors on May 3, 2024. [Click here](#) for the list of students who graduated. Congratulations to these students!

Summer 2025 REU in Interdisciplinary Evolutionary Sciences

The National Science Foundation Research Experiences for Undergraduates (NSF REU) program offers research opportunities to undergraduate students in any of the research areas funded by NSF. The REU site at the University of Iowa, organized by **Andrew Forbes**, Professor of Biology, focuses on training in evolutionary science with students working on research projects across multiple disciplines. Several academic departments, including the Department of Biology, offer research projects that span a range of topics such as evolution of behavior, cancer evolution, origin of species, evolution of sex, paleontology, and the evolution of disease. Students in the program receive training in research best practices, participate in career workshops, create a digital exhibit, and make formal research presentations. Housing, a meal allowance, a stipend of \$6,250, and a travel allowance are provided to students in the program. Students accepted into the program must be a U.S. citizen or permanent resident enrolled at a U.S. college or university, be majoring in a STEM field, have a grade-point average of 3.0 or higher, among other requirements. Applications are accepted through February 15, 2025. The program runs for 10 weeks from May 25 through August 2, 2025. For more information and to apply, visit <https://biology.uiowa.edu/reu>



Fabiola Castaneda-Santiago, an Iowa Sciences Academy student majoring in Biology and an undergraduate researcher in the Forbes Lab in the Department of Biology, is highlighted in this [article](#) with her experience in the REU program this past summer.

FALL 2024 EVENTS

Fall Undergraduate Research Conference

Several undergraduate students affiliated with the Department of Biology and/or the Iowa Sciences Academy presented at the Fall 2024 Fall Undergraduate Research Festival on Wednesday, November 6, from 3:30-6:00pm in the University Capitol Centre/Old Capitol Town Center. [Click here](#) for more information and a list of student presenters.

iBio Graduate Program Information Session



INTEGRATED BIOLOGY (iBIO) GRADUATE PROGRAM INFORMATION SESSION WITH FACULTY & STUDENTS

Members of Biology's Graduate Recruiting and Admissions Committee will provide information about the Ph.D. and M.S. programs in Integrated Biology (iBio), including the admissions process, faculty lab affiliation, and degree requirements.

Tuesday, November 12 | 3:30-4:30pm
Room 101 (Kollros Auditorium), Biology Building East (BBE)



If you cannot attend, feel free to
subscribe from this link to receive
<https://portal.uiowa.edu/ibio>

For more information, visit
<https://portal.uiowa.edu/ibio>



Tuesday, November 12
3:30-4:30pm
Room 101 (Kollros Auditorium),
Biology Building East (BBE)

Members of Biology's Graduate Recruiting and Admissions Committee will provide information about the Ph.D. and M.S. programs in Integrated Biology (iBio) including the admissions process, faculty lab affiliation, and degree requirements. For more information about the iBio Graduate Program, visit

<https://biology.uiowa.edu/ibio>.

Iowa Sciences Academy Scholar Symposium

Saturday, December 7

10:00am-12:00pm

Room 101 (Kollros Auditorium), Biology Building East (BBE)

This event features short talks by undergraduate students about their research who are currently in Iowa Sciences Academy (ISA) programs. ISA is home to a range of programs that support the success of undergraduate students interested in research and scientific communication. For more information about ISA programs, visit

<https://isa.uiowa.edu>.

NEW PUBLICATIONS

Andrew Forbes

Professor of Biology

Hippee AC, Beer MA, Norrbom AL, **Forbes AA**. 2024. Stronger interspecific sexual differences may be favored when females search for mates in the presence of congeners. *Current Research in Insect Science*, Volume 5, 2024, Article 100084.

<https://www.sciencedirect.com/science/article/pii/S2666515824000143>

Alaine Hippee (B.S. in Biology with Distinction, M.S. in Integrated Biology, Ph.D. in Integrated Biology); Marc Beer (B.S. in Biology with Highest Distinction).

Steven Green

Professor of Biology

Sriram Hemachandran, Ning Hu, Catherine J. Kane, and **Steven H. Green**. Cyclic AMP signaling promotes regeneration of cochlear synapses after excitotoxic or noise trauma. *Frontiers in Cellular Neuroscience*, Volume 18, 2024.

<https://doi.org/10.3389/fncel.2024.1363219>

Sriram Hemachandran (Ph.D. in Integrated Biology)

Douglas Houston

Professor and Developmental Studies Hybridoma Bank (DSHB) Director

Richard A Kahn, Harvinder Virk, Carl Laflamme, **Douglas W Houston**, et al.
Science Forum: Antibody characterization is critical to enhance reproducibility in biomedical research. *eLife*. <https://doi.org/10.7554/eLife.100211>

Alan Kay

Professor of Biology

Aminzare Z, **Kay AR**. Mathematical modeling of intracellular osmolarity and cell volume stabilization: The Donnan effect and ion transport. *Journal of General Physiology*, Volume 156, Issue 8, 2024. <https://doi.org/10.1085/jgp.202413554>.

Maurine Neiman

Professor of Biology

The following paper is published online in preprint:

Bryan Lamberto Guevara, Nadia Patel, Yi Tu, **Maurine Neiman**. Phthalate exposure influences mating behavior and sperm morphology in an aquatic ecotoxicology model system. *bioRxiv* preprint. August 21, 2024.

<https://doi.org/10.1101/2024.08.20.608834>

Bryan Guevara (B.S. in Biology); Nadia Patel and Yi Tu were high school students in the Secondary Student Training Program (SSTP) offered through the Belin-Blank Center at the University of Iowa.

Sarit Smolikove

Professor of Biology

Hicks, T., Silva, N., Smolikove, S. Temporal Analysis of DSB Repair Outcome in *Caenorhabditis elegans* Meiosis. *Methods in Molecular Biology*, Volume 2818, 2024, Pages 195-212. https://doi.org/10.1007/978-1-0716-3906-1_13
Tara Hicks (Ph.D. in Integrated Biology)

Christopher Stipp

Professor of Biology

Mary E Herndon, Mitchell Ayers, Katherine N Gibson-Corley, Michael K Wendt, Lori L Wallrath, Michael D Henry, **Christopher S Stipp**. The highly metastatic 4T1 breast carcinoma model possesses features of a hybrid epithelial/mesenchymal phenotype. *Disease Models & Mechanisms*, Volume 17, Issue 9, September 2024. <https://doi.org/10.1242/dmm.050771>

A time-lapse video from the publication cited above was selected for highlighting as the “Biomedical Picture of the Day” on September 26, 2024. (<https://bpod.org.uk/archive/2024/9/26>)

Croushore, Emma E., **Christopher S. Stipp**, and David J. Gordon. EWS-FLI1 and Activator Protein-1 (AP-1) Reciprocally Regulate Extracellular-Matrix Proteins in Ewing sarcoma Cells. *International Journal of Molecular Sciences*, Volume 25, 2024. <https://doi.org/10.3390/ijms25168595>

Chen, J., Ding, Y., Jiang, C., Qu, R., Wren, J. D., Georgescu, C., Wang, X., Reuter, D. N., Liu, B., Giles, C. B., Mayr, C. H., Schiller, H. B., Dai, J., **Stipp, C. S.**, Subramanian, B., Wang, J., Zuo, H., Huang, C., Fung, K.-M., ... Zhang, X. A. CD151 Maintains Endolysosomal Protein Quality to Inhibit Vascular Inflammation. *Circulation Research*, Volume 134, Issue 10, May 2024, Pages 1330–1347. <https://doi.org/10.1161/circresaha.123.323190>

Tina Tootle

Professor and Chair, Department of Biology

The following paper is published online in preprint:

Nicole M. Green, Danielle Talbot, **Tina L. Tootle**. Nuclear actin is a critical regulator of *Drosophila* female germline stem cell maintenance. *bioRxiv* preprint. August 28, 2024. <https://doi.org/10.1101/2024.08.27.609996>

Elizabeth Walker

B.S. in Biomedical Sciences and Neuroscience (Spring 2024) and former Iowa Sciences Academy student

Groux, A.R.; **Walker, Elizabeth S.**; Shemirani, F.; Lee, J.E.; Irish, A.K.; Rubenstein, L.M.; Snetselaar, L.G.; Darling, W.G.; Wahls, T.L.; Titcomb, T.J. Diet-Induced Changes in Functional Disability among People with Multiple Sclerosis: A Secondary Pooled Analysis of Two Randomized Controlled Pilot Trials. *Sclerosis*, Volume 2, Issue 3, September 2024, Pages 156-165. <https://doi.org/10.3390/sclerosis2030011>

Joshua Weiner

Professor of Biology; Associate Dean for Research and Infrastructure, College of Liberal Arts and Sciences

Hanes CM, Mah KM, Steffen DM, Marcucci CG, Fuller LC, Burgess RW, Garrett AM, **Weiner JA**. A C-terminal motif containing a PKC phosphorylation site regulates γ -Protocadherin-mediated dendrite arborization in the cerebral cortex in vivo. *Developmental Neurobiology*, Volume 84, Issue 3, July 2024, Pages 217-235. <https://doi.org/10.1002/dneu.22950>

Camille Hanes (Ph.D. in Neuroscience); Kar Men Mah (Ph.D. in Biology); David Steffen (Ph.D. in Integrated Biology); Charles Marcucci (B.S. in Biology with Highest Distinction); Andrew Garrett (Ph.D. in Neuroscience).