

**Hannah H. Chu***(she/her)*[hchu036@ucr.edu](mailto:hchu036@ucr.edu) // [www.hannahhchu.com](http://www.hannahhchu.com)**EDUCATION**

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- PhD University of California, Riverside (UCR)**  
 Entomology Exp. May 2025  
*Community and molecular ecology of southern California blow flies (Diptera: Calliphoridae)*  
 Drs. Amy C. Murillo (Chair), Jessica Purcell, Alec C. Gerry
- B.S. John Jay College of Criminal, City University of New York**  
 Forensic Science/Molecular Biology Track (Hons.), *summa cum laude* June 2019

**TEACHING**

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- University of California, Riverside** *Teaching Assistant/Lab Instructor*  
 Guest Lectures
  - Invertebrate Biodiversity (Organisms in Their Environment; Winter 2024)
  - How to use and create Infographics (Intro Evolution, Med/Vet Entomology; Winter 2023)
 Insect Physiology (ENTM 173, hybrid), Spring 2021  
 Medical and Veterinary Entomology (ENTM 126, virtual), Winter 2021
- John Jay College of Criminal Justice, CUNY** *Teaching Lab Assistant*  
 General Biology, General Chemistry, Organic Chemistry II, Physics I, Physics II
  - *Facilitated laboratory sessions for groups of up to 25 students, ensuring hands-on learning and facilitating a deeper understanding of experimental techniques.*
- Additional Training & Experience**  
 Forensic Fire Death Investigation Course, *San Luis Obispo Fire Investigation Strike Team (2024)*
  - *Instructed students in fire-related death investigations through a comprehensive learning experience, including field exercises with real scenarios, guided by recognized experts.*
 University Teaching Week, UCR (2024)
  - *Participated in a week-long pedagogical training in emerging technologies in the classroom.*
 Career Mentoring of Underrepresented STEM Students for the Professoriate, UCR (2024-2025)
  - *Professional development for graduate students interested in becoming professors.*
 Communicating Science in the Misinformation Age Workshop, *Virtual (2020)*  
 ComSciCon National Science Communication Workshop, *Virtual (2020)*

**RESEARCH**

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- University of California, Riverside** July 2019 – June 2025  
 Murillo Research Group October 2021 – June 2025  
*Community ecology, population genetics, thermal tolerance, forensic entomology*
- Yamanaka Laboratory July 2019 – October 2021  
*Insect physiology, endocrinology, molecular biology*
- John Jay College of Criminal Justice, CUNY** August 2016 – August 2019  
 Rosati Laboratory; *Forensic entomology, entomotoxicology*
- University of Florida – Summer Research Program** May – August 2018  
 Hahn Laboratory; *Insect physiology and metabolism, thermal tolerance*

**Cornell University – Summer Research Program**

May – August 2017

Wang Laboratory; *Insect biochemistry and physiology, pesticide resistance***MENTORSHIP AND ADVISING**

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**University of California, Riverside**

December 2020 – June 2025

*Educational Success Mentoring*

Leon Kataw – new UCR graduate student

Jordyn Neal – California State University, Fullerton Master's to PhD Bridge Program

*Research Mentoring (Undergraduates)*

Indigo Talley

AJ Arsalane

Anthony Sarmiento

Helena Levin

Alec Wrightson

Gabriella Moussa

**John Jay College of Criminal Justice, CUNY***Peer Tutor, Math and Science Resource Center*

September 2017 – January 2019

*Peer Advisor, Academic Advisement Center*

August 2016 - January 2018

**AWARDS**

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- 2023** Earle C. Anthony Graduate Student Travel Award, *UCR Graduate Division*  
 Outstanding Student Award, *Entomology Graduate Student Association*  
 GWIS Fellowship Honorable Mention, *Graduate Women in Science*  
 Lauren and Mildred Anderson Immature Insects Award, *UCR Entomology*  
 Best PhD Student Talk, *North American Forensic Entomology Association*  
 NAFEA Travel Award, *North American Forensic Entomology Association*  
 RADCamp Travel Award, *Columbia University*  
 Graduate Student Association Travel Award, *UCR Graduate Division*
- 2022** MUVE Student Travel Award, *Entomological Society of America*  
 Public Health Entomology for All Travel Grant, *Entomological Society of America*  
 First Place Riverside Insect Fair Booth, *City of Riverside*
- 2021** Exceptional Remote Teaching Award, *UCR Entomology*  
 Presidential Membership Award, *Genetics Society of America*
- 2020** Lauren and Mildred Anderson Immature Insects Award, *UCR Entomology*

**GRANTS AND FELLOWSHIPS (\$202,000)**

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- 2023** California Institute of Biodiversity Student Research Rapid Grant (\$599)  
 Carl Strom/Western Exterminator Scholarship, *Western Exterminator* (\$700)
- 2022** Carl Strom/Western Exterminator Scholarship, *Western Exterminator* (\$500)  
 Graduate Research Grant Program, *Joshua Tree National Park Association* (\$5000)
- 2021** Graduate Research Fellowship Program (**GRFP**), *National Science Foundation* (\$134,000)
- 2019** Chancellor's Distinguished Fellowship, *UCR Graduate Division* (\$29,702)  
 Jonas E. Salk Scholarship, *City University of New York* (\$8000)
- 2015** Honors Program Scholarship, *John Jay College of Criminal Justice, CUNY* (\$4,000)  
 Hecht Scholarship, *John Jay College of Criminal Justice, CUNY* (\$7,500)  
 Presidential Scholarship, *John Jay College of Criminal Justice, CUNY* (\$12,000)

*Not awarded:*

- NIFA AFRI EWD Predoctoral Fellowship (2023, Ranked High Priority) PI: H. Chu  
Assessing Blow Flies (Diptera: Calliphoridae) As Sustainable Pollinators for Strawberry Crop;  
Total Costs: \$118,204
- NIJ Graduate Research Fellowship (2023) PI: H. Chu  
Determining Thermal Limits of Blow Flies (Diptera: Calliphoridae) in Southern California's  
Desert Regions for Improved Post-Mortem Interval Estimations; Total Costs: \$151,873
- NSF Biodiversity on a Changing Planet (2023) Co-PIs: A. Murillo and L. Weidner;  
Key Grant-Writing Collaborator: H. Chu  
Collaborative Research: Impact of a Changing Planet on Blow Fly Functional Biodiversity and  
Distribution; Total Costs: \$1,278,681

**PUBLICATIONS (Peer-Reviewed)**

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5. **Chu H.H.** and Murillo, A.C., "Species-sorting and mass effects primarily drive blow fly (Diptera: Calliphoridae) community assembly in southern California," *Ecology*, (2025, in prep)
4. Gerry, A., Wilson, S., **Chu, H.H.**, Lemus, K., Murillo, A.C., "Evaluation of bacterial treatments (*Bacillus* spp.) for control of immature house flies," *Arthropod Manag Tests*, (2024, in review)
3. **Chu H.H.** and Murillo, A.C., "Variation in the community composition of blow flies (Diptera: Calliphoridae) in contrasting desert ecosystems within Joshua Tree National Park," *Environ Entomol*, (2024, accepted)
2. Masterson M, Bittar R, **Chu H**, Yamanaka N, Haga-Yamanaka S. 2022. Rapid Assessment of Insect Steroid Hormone Entry Into Cultured Cells. *Front Physiol.* 12:816058. doi:10.3389/fphys.2021.816058.
1. Yang X, Chen W, Song X, Ma X, Cotto-Rivera RO, Kain W, **Chu H**, Chen Y-R, Fei Z, Wang P. 2019. Mutation of ABC transporter ABCA2 confers resistance to Bt toxin Cry2Ab in *Trichoplusia ni*. *Insect Biochem Physiol.* 112:103209. doi:10.1016/j.ibmb.2019.103209.

**PUBLICATIONS (Education and Science Communication)**

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9. **Chu, H.** "Preliminary insights into the blow flies (Diptera: Calliphoridae) of Joshua Tree National Park", *Joshua Tree Science* (2024)
8. **Chu, H.** "#UCSciCommSeries Presents: Teresa Ortner", *UC Davis Science Says* (2022)
7. **Chu, H.** "#UCSciCommSeries Presents: Megan Varvais", *UC Davis Science Says* (2022)
6. **Chu, H.** and Maccaro, J. "[California Native Bee Zoom](#)", Interactive educational website (2021)
5. **Chu, H.** "Premature blowfly egg development leads to inaccurate time since death estimations", *ForensicBites* (2021)
4. **Chu, H.** "Charlene the Chuon: A new way to communicate the wave-particle duality ... to kids!", *SciComm@UCR Blog* (2020)
3. **Chu, H.** "From Murder Cases to Insect Puberty", interviewed by *You Better Werk, Amy Shakespeare* (2020)
2. **Chu, H.** and Sankovitz, M. "Our experience at ComSciCon: the perspectives of two entomology Ph.D. students", *SciComm@UCR Blog* (2020)
1. **Chu, H.** "My Short Tenure as a Forensic Entomologist", *Entomology Graduate Student Association at the University of California, Riverside Blog* (2020)

## INVITED PRESENTATIONS

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10. **Chu, H.** "From Data to Delivery: How to give scientific presentations". *RISE Summer Undergraduate Research Workshop*. Riverside, CA. (Jul 2024)
9. **Chu, H.** "Visual Storytelling in Science: Communicating science through posters and infographics". *Science Communication Workshop*, University of Illinois Urbana-Champaign. Virtual. (Mar 2024)
8. **Chu, H.** and Murillo, A.C. "Thermal ecology of southern California blow flies (Diptera: Calliphoridae)". *Entomological Society of America National Meeting*. National Harbor, MD. (Nov 2023)
7. **Chu, H.** "Maggot Masterpieces: An Artistic Exploration of Blow Fly Diversity in Joshua Tree National Park". *Science in the Park Series*. Joshua Tree, CA. (Oct 2023)
6. **Chu, H.** "From Data to Delivery: Crafting Effective Oral Presentations". *RISE Summer Undergraduate Research Workshop*. Riverside, CA. (Aug 2023)
5. **Chu, H.** and Murillo, A.C. "From the desert to the sea: An inventory of blow flies in southern California". *Entomological Society of America Pacific Branch Meeting*. Seattle, WA. (Apr 2023)
4. **Chu, H.** "Infographics 101: Techniques for Effective Visual Communication". *Entomological Society of America Webinar*. Virtual. (Apr 2023)
3. **Chu, H.** "All About Forensic Entomology". *Science Nights in Riverside*. Riverside, CA. (Mar 2023)
2. **Chu, H.** "Putting the graphic in infographic". *Entomological Society of America National Meeting*. Vancouver, BC. (Nov 2022)
1. **Chu, H.** "Putting the graphic in infographic". *UCR Entomology Department Seminar*. Riverside, CA. (Nov 2022)

## PROFESSIONAL PRESENTATIONS AND POSTERS

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19. **Chu, H.** and Murillo, A.C. "Decomposers in Joshua Tree National Park: Blow fly (Diptera: Calliphoridae) communities across the Mojave and Sonoran deserts." *Ecological Society of America*. Long Beach, CA. (Aug 2024)
18. **Chu, H.** and Murillo, A.C. "Thermal limits of two blow fly (Diptera: Calliphoridae) species from the Sonoran desert". *Student Seminar Day*. Riverside, CA. (Sep 2023)
17. **Chu, H.** and Murillo, A.C. "A survey of blow flies in Joshua Tree National Park". *North American Forensic Entomology Association*. Glendale, AZ. (Jun 2023)
16. **Chu, H.** and Murillo, A.C. "Blow Fly (Diptera: Calliphoridae) Community Structure Across Urban-Natural Landscapes in Southern California". *UCR Urban Pest Management Conference*. Riverside, CA. (Mar 2023)
15. **Chu, H.** and Murillo, A.C. "Blow flies (Calliphoridae) of Joshua Tree". *Entomological Society of America National Meeting*. Vancouver, BC. **International** (Nov 22)
14. **Chu, H.** and Murillo, A.C. "Where are the Calliphorids?: an inventory of blow flies in Southern California". *Student Seminar Day*. Riverside, CA. (Sep 2022)
13. **Chu, H.** and Murillo, A.C. "An Evaluation of Trapping Methodology for a Southern California Blow Fly Survey". *UCR Urban Pest Management Conference*. Riverside, CA. (Mar 2022)
12. **Chu, H.** and Murillo, A.C. "The Distribution and Diversity of Calliphoridae in Southern California". *Student Seminar Day*. Virtual. (Jan 2022)

11. **Chu, H.** and Yamanaka, N. "When Puberty Hits Different: abnormal juvenile hormone signaling in hemimetabolous and holometabolous insects". *Entomological Society of America National Meeting*. Denver, CO. (Nov 2021)
10. **Chu, H.** and Yamanaka, N. "A novel strategy to study loss of juvenile hormone signaling in *Drosophila melanogaster*". *Student Seminar Day*. Virtual. (Oct 2021)
9. **Chu, H.** "The Case of the Perplexing Phenotypes: Juvenile Hormone Signaling in *Drosophila melanogaster*". *Entomological Society of America National Meeting*. Virtual. (Nov 2020)
8. **Chu, H.** and Yamanaka, N. "Identifying and Characterizing a Juvenile Hormone Transporter in *Drosophila melanogaster*". *Student Seminar Day*. Virtual. (Apr 2020)
7. **Chu, H.** and Rosati, J.Y. "Drunk Flies: Oviposition Preferences of the Blow fly *Lucilia sericata* (Meigen) on Ethanol-Treated Mediums". *PRISM Symposium*. New York, NY. (Mar 2019)
6. **Chu, H.** and Yaverbaum, D.M. "Choose Charlene: What's Wrong With You? A New Way to Consider the Core Observation of Quantum Mechanics" *Departmental Seminar*. New York, NY. (Mar 2019)
5. **Chu, H.** and Rosati, J.Y. "Detection of Drug Metabolites in *Lucilia sericata*". *PRISM Symposium*. New York, NY. (May 2018)
4. **Chu, H.**, Paucar, Y., Mehta, V., Fragale, J., and Rosati, J.Y. "The Diversity of Forensically Important Flies in New York City". *Entomological Society of America National Meeting*. Denver, Colorado. (Nov 2017)
3. Wang, P., Yang, X., **Chu, H.**, and Shao, E. "Understanding the Molecular Mechanism of Insect Resistance to Bt Toxin Cry2Ab". *USDA NIFA Project Directors Meeting*. Washington, D.C. (Oct 2017)
2. **Chu, H.**, Yang, X., Shao, E., and Wang, P. "Analysis of mutations and expression of ABCA1 and ABCA2 genes in cabbage loopers resistant to Bt toxin Cry2Ab". *Undergraduate Research Symposium*. Geneva, NY. (Jul 2017)
1. **Chu, H.**, Paucar, Y., Mehta, V., Fragale, J., and Rosati, J.Y. "The Diversity of Forensically Important Flies in Central Park". *PRISM Symposium*. New York, NY. (May 2017)

## OUTREACH AND COMMUNITY PRESENTATIONS

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8. **Chu, H.** "All About Maggots: Maggot Art & Blow fly behavior". *CNAS Sisters Event*. Riverside, CA. (Mar 2023)
7. **Chu, H.** "Murder & Maggots: Can you solve this crime?". Riverside, CA. (Feb 2023)
6. **Chu, H.** "How to improve your scientific posters". *Dept. Workshop*. Riverside, CA. (Sep 2022)
5. **Chu, H.** "Medical, Urban, and Veterinary Entomology in California". *Riverside Insect Fair*. Riverside, CA. (Apr 2022)
4. **Chu, H.** "Community Science and getting involved". *Riverside Insect Fair*. Riverside, CA. (Apr 2022)
3. **Chu, H.** "How to present your research creatively". *MARC U STAR Undergraduate Research Program*. Riverside, CA. (Apr 2021)
2. **Chu, H.** "How to read a research paper and not cry". *Skype a Scientist*. Virtual. (Oct 2020)
1. **Chu, H.** "How to read a research paper and not cry". *Skype a Scientist*. Virtual. (Oct 2020)

## ACADEMIC AND PROFESSIONAL SERVICE

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### **InsectaBio, LLC.**

Chief Marketing Officer, 2022-present

### **California Governor's Office of Precision Medicine**

Science Communication and Graphic Design Policy Fellow, 2021-2022

### **SciComm @ UCR**

President, 2020-22

Social Media and Marketing Chair, 2019-20, 2022-2024

### **ComSciCon**

Organizing Committee Member, National Conference 2021

Organizing Committee Member, LA-Regional Conference 2021

### **Entomology Graduate Student Association (EGSA)**

Riverside City Insect Fair Co-Chair, 2023 (Downtown Riverside Event Award-Winning Year)

Vice President, 2022-23

Social Events Committee Member, 2022-present

Diversity, Inclusion, & Equity Committee Member, 2020-present

Co-Chair of "Careers in Entomology: Academia and Beyond" Seminar Series, 2021

Secretary, 2020

Social Media and Technology Committee Member, 2019-present

Entomology Games Team, 2019-present

Outreach Team, 2019

### **UCR Entomology Department**

Student Representative for Genetics/Genomics of Vectors Faculty Search, 2024

Newsletters and Technology Representative, 2022-23

Youth Summer Camp Curriculum Committee, 2022-23

Twitter Manager, 2019-present

Outreach Student Representative, 2021-22

Seminar Committee Representative, 2019-21

### **University of California, Riverside (UCR)**

Graduate Academic Integrity Committee Student Member, 2020-present

## PROFESSIONAL ORGANIZATIONS

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Society for the Advancement of Biology Education Research

Ecological Society of America

North America Forensic Entomology Association

North American Dipterists Society

Entomological Society of America

## REFERENCES

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**Dr. Amy Murillo**, Dissertation Advisor and Instructor for Med/Vet Entomology

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**Dr. Richard (Rick) Redak**, Department Chair

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**Dr. Naoki Yamanaka**, Professor and Instructor for Insect Physiology

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