

Hannah H. Chu

(she/hers)

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EDUCATION

University of California, Riverside – Riverside, CA **Expected Grad: May 2025**
Entomology, Ph.D.

Dissertation: “*Community and molecular ecology of southern California blow flies (Diptera: Calliphoridae)*”

John Jay College of Criminal Justice, CUNY – New York, NY 2015-2019

Forensic Science, B.S. (Hons.), Summa cum laude

- concentration in Molecular Biology
- minor in Mathematics

Honors Thesis: “*The effects of fentanyl and its metabolites on Lucilia sericata larval development*”

RESEARCH EXPERIENCE

University of California, Riverside

MURILLO LAB – Amy Murillo, PhD

October 2021 – present

“*Community and molecular ecology of southern California blow flies (Diptera: Calliphoridae)*”

YAMANAKA LAB – Naoki Yamanaka, PhD

July 2019 – October 2021

“*Identifying a Juvenile Hormone Importer in Drosophila melanogaster*”

John Jay College of Criminal Justice, CUNY

ROSATI LAB – Jennifer Rosati, PhD

August 2016 – August 2019

“*The Effects of Drug Metabolites on Dipteran Larval Development*”

“*The Diversity of Forensically Important Blow Flies in Manhattan*”

“*The Effect of Tissue Type on the Development of Two Forensically Important Blow Fly Species, Phormia regina (Meigen) and Lucilia sericata (Meigen)*”

YAYERBAUM LAB – Daniel M. Yaverbaum

February 2017 – June 2019

“*Mental Models for Galilean Relativity*”

University of Florida – Summer Research Program

HAHN LAB – Daniel Hahn, PhD

May 2018 – August 2018

“*Effects of metabolic rate on the lifespan of the apple maggot Rhagoletis pomonella*”

“*What is the arrangement of the genetic architecture of thermal performance?*”

Cornell University – Summer Research Program

WANG LAB – Ping Wang, PhD

May 2017 – August 2017

“*Analysis of mutations and expression of ABCA1 and ABCA2 genes in cabbage loopers resistant to Bt toxin Cry2Ab*”

PROFESSIONAL PUBLICATIONS (Peer-Reviewed)

Hannah H. Chu and Amy C. Murillo, "Variation in the community composition of blow flies (Diptera: Calliphoridae) in contrasting desert ecosystems within Joshua Tree National Park," *Environmental Entomology*, (2024, submitted)

Mitchell Masterson, Riyan Bittar, **Hannah Chu**, Naoki Yamanaka, Sachiko Haga-Yamanaka, "[Rapid assessment of insect steroid hormone entry into cultured cells](#)," *Frontiers in Invertebrate Physiology*, 103389. (2022)

Xiaowei Yang, Wenbo Chen, Xiaozhao Song, Xiaoli Ma, Wendy Kain, **Hannah Chu**, Yun-Ru Chen, Zhang jun Fei, Ping Wang, "[Mutation of ABC transporter ABCA2 confers resistance to Bt toxin Cry2Ab in *Trichoplusia ni*](#)," *Insect Biochemistry and Molecular Biology*, 103209. (2019)

OTHER PUBLICATIONS AND WORKS

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

AWARDS

- 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

- California Institute of Biodiversity Student Research Rapid Grant
Term Awarded: 2023; Awarded Amount: \$599
- Carl Strom/Western Exterminator Scholarship, *Western Exterminator*
Term Awarded: 2023; Awarded Amount: \$500
- Carl Strom/Western Exterminator Scholarship, *Western Exterminator*
Term Awarded: 2022; Awarded Amount: \$500
- Graduate Research Grant Program, *Joshua Tree National Park Association*
Term Awarded: 2022-2023; Awarded Amount: \$5000
- Graduate Research Fellowship Program (GRFP), *National Science Foundation*
Term Awarded: 2021-2024; Awarded Amount: \$134,000
- Chancellor's Distinguished Fellowship, *UCR Graduate Division*
Term Awarded: 2019; Awarded Amount: \$29,702
- Jonas E. Salk Scholarship, *City University of New York*
Term Awarded: 2019-2023; Awarded Amount: \$8000
- Honors Program Scholarship, John Jay College
Term Awarded: 2015-2019; Awarded Amount: \$4,000
- Hecht Scholarship, John Jay College
Term Awarded: 2015-2019; Awarded Amount: \$7,500
- Presidential Scholarship, John Jay College
Term Awarded: 2015-2019; Awarded Amount: \$12,000

TEACHING EXPERIENCE

University of California, Riverside

Teaching Assistant

Guest Lectures

- Invertebrate Biodiversity (BIOL003; Winter 2024)
- All About Infographics and How to Create One (Winter 2023)
 - o Gave 3 lectures to a medical and veterinary entomology class and an evolution for non-science majors class

Insect Physiology (ENTM 173), Spring 2021

- Responsible for 60 undergraduate students
- Created new presentation slides for lecture
- Revamped and graded worksheets and assessments

Medical and Veterinary Entomology (ENTM 126), Winter 2021

- Responsible for 40 undergraduate students
- Created new presentation slides for lecture
- Revamped and graded worksheets and assessments
- Assisted primary instructor in development of new infographic project for students

John Jay College of Criminal Justice, CUNY

Teaching Lab Assistant

General Biology, General Chemistry, Organic Chemistry II, Physics I, Physics II

- Responsible for laboratories classes of up to 25 students
- Graded evaluations
- Assisted in class experiments and discussions

PROFESSIONAL PRESENTATIONS (29 presentations, 7 invited, 3 international)

1. **Invited Talk:** "From Data to Delivery: Crafting Effective Oral Presentations". Riverside, CA. *Workshop for 250 students*. July 2024
2. **Invited Talk:** "Visual Storytelling in Science: Communicating science through posters and infographics". Virtual, University of Illinois Urbana-Champaign. *Science Communication Guest Lecture*. March 2024
3. **Invited Talk:** "Thermal ecology of southern California blow flies (Diptera: Calliphoridae)". National Harbor, MD. *Entomological Society of America National Meeting*. November 2023
4. **Poster:** "Thermal limits of two blow fly (Diptera: Calliphoridae) species from the Sonoran desert". Riverside, CA. *Student Seminar Day*. September 2023
5. **Talk:** "A survey of blow flies in Joshua Tree National Park". Glendale, AZ. *North American Forensic Entomology Association*. June 2023
6. **Invited Talk:** "From the desert to the sea: An inventory of blow flies in southern California". Seattle, WA. *Entomological Society of America Pacific Branch Meeting*. April 2023
7. **Invited Talk:** "Infographics 101: Techniques for Effective Visual Communication". Virtual, *Entomological Society of America*. April 2023

8. **Poster:** "Blow Fly (Diptera: Calliphoridae) Community Structure Across Urban-Natural Landscapes in Southern California". Riverside, CA. *UCR Urban Pest Management Conference*. March 2023
9. **Invited Talk:** "Putting the graphic in infographic". Vancouver, BC. *Entomological Society of America National Meeting*. November 2022
10. **Poster:** "Blow flies (Calliphoridae) of Joshua Tree". Vancouver, BC. *Entomological Society of America National Meeting*. November 2022
11. **Invited Talk:** "Putting the graphic in infographic". Riverside, CA. *UCR Entomology Dept. Seminar*. November 2022
12. **Talk:** "Where are the Calliphorids?: an inventory of blow flies in Southern California". Riverside, CA. *Student Seminar Day*. September 2022
13. **Poster:** "An Evaluation of Trapping Methodology for a Southern California Blow Fly Survey". Riverside, CA. *UCR Urban Pest Management Conference*. March 2022.
14. **Invited Talk:** "PRISM Alumni Panel: All About Graduate School". Virtual. *John Jay College of Criminal Justice PRISM Program*. January 2022
15. **Talk:** "The Distribution and Diversity of Calliphoridae in Southern California". Virtual. *Student Seminar Day*. January 2022
16. **Infographic:** "When Puberty Hits Different: abnormal juvenile hormone signaling in hemimetabolous and holometabolous insects". Denver, Colorado. *Entomological Society of America National Meeting*. November 2021
17. **Poster:** "A novel strategy to study loss of juvenile hormone signaling in *Drosophila melanogaster*". Virtual. *Student Seminar Day*. October 2021
18. **Infographic:** "The Case of the Perplexing Phenotypes: Juvenile Hormone Signaling in *Drosophila melanogaster*". Virtual. *Entomological Society of America National Meeting*. November 2020
19. **Talk:** "Identifying and Characterizing a Juvenile Hormone Transporter in *Drosophila melanogaster*". Virtual. *Student Seminar Day*. April 2020
20. **Poster:** "Drunk Flies: Oviposition Preferences of the Blow fly *Lucilia sericata* (Meigen) on Ethanol-Treated Mediums". New York, NY. *PRISM Symposium*. March 2019
21. **Poster:** "Establishing a Protocol for Tissue Differentiation in *Lucilia sericata* (Meigen)". New York, NY. *PRISM Symposium*. March 2019
22. **Talk:** "Choose Charlene: What's Wrong With You? A New Way to Consider the Core Observation of Quantum Mechanics" New York, NY. *Departmental Seminar*. March 2019
23. **Poster:** "Detection of Drug Metabolites in *Lucilia sericata*". New York, NY. *PRISM Symposium*. May 2018
24. **Talk:** "The effect of tissue type on the development of two forensically important blow fly species, *Phormia regina* (Meigen) and *Lucilia sericata* (Meigen)." Vancouver, BC.

Entomological Society of America National Meeting. November 2018

25. **Poster:** "Detection of Drug Metabolites in *Lucilia sericata*". New York, New York. *PRISM Symposium*. May 2018
26. **Talk:** "The Diversity of Forensically Important Flies in New York City". Denver, Colorado. *Entomological Society of America National Meeting*. November 2017
27. **Poster:** "Mapping of Bt Cry2Ab resistant gene in the cabbage looper, *Trichoplusia ni*". Denver, Colorado. November 2017
28. **Poster:** "Understanding the Molecular Mechanism of Insect Resistance to Bt Toxin Cry2Ab". Washington, D.C. *USDA NIFA Project Directors Meeting*. October 2017
29. **Poster:** "Analysis of mutations and expression of ABCA1 and ABCA2 genes in cabbage loopers resistant to *Bt* toxin Cry2Ab". Geneva, New York. July 2017
30. **Poster:** "The Diversity of Forensically Important Flies in Central Park". *Program for Research Initiatives in Math and Science Symposium*. New York, New York. May 2017

OUTREACH PRESENTATIONS

1. **Invited Workshop:** "Maggot Masterpieces: An Artistic Exploration of Blow Fly Diversity in Joshua Tree National Park". Joshua Tree, CA. 2023 October
2. **Invited Talk:** "From Data to Delivery: Crafting Effective Oral Presentations". Riverside, CA. 2023 August
3. **Workshop:** "All About Maggots: Maggot Art & Blow fly behavior". Riverside, CA. 2023 March
4. **Invited Talk:** "All About Forensic Entomology". Riverside, CA. 2023 March
5. **Talk:** "Murder & Maggots: Can you solve this crime?". Riverside, CA. 2023 February
6. **Workshop:** "How to improve your scientific posters". Riverside, CA. 2022 September
7. **Panel:** "Medical, Urban, & Veterinary Entomology in California". Riverside, CA. 2022 April
8. **Panel:** "Community Science & how to get involved". Riverside, CA. 2022 April
9. **Talk:** "How to present your research creatively". Riverside, CA. 2021 April
10. **Talk:** "How to read a research paper and not cry". Skype a Scientist. Virtual. 2020 October
11. **Talk:** "Insects go through puberty too!". Skype a Scientist. Virtual. 2019 October

ACADEMIC AND PROFESSIONAL SERVICE

InsectaBio, LLC.

Chief Marketing Officer, 2022 – present

California Governor's Office of Precision Medicine

Policy Fellow, November 2021 – July 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

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 TRAINING

University Teaching Certificate Program, *University of California, Riverside*, 2024-2025

Career Mentoring of Underrepresented STEM Students for the Professoriate, *UCR CNAS* 2024

Morphological Identification of Blow flies, *Arizona State University, Glendale*. July 2023

Molecular Identification of Blow flies, *Arizona State University, Glendale*. July 2023

RADCamp RadSeq Workshop, *Columbia University, New York City*. May 2023

Science Communication Workshop, *University of California, Riverside*. September 2022

Teaching Assistant Orientation and Training, *University of California, Riverside*. Fall 2021

Communicating Science in the Misinformation Age Workshop, *Virtual*. September 2020

ComSciCon National Science Communication Workshop, *Virtual*. May 2020

PROFESSIONAL ORGANIZATIONS

Ecological Society of America

Entomological Society of America

North America Forensic Entomology Association

North American Dipterists Society