

Hannah H. Chu

(she/hers)

hchu036@ucr.edu // www.hannahhchu.com

EDUCATION

University of California, Riverside – *Riverside, CA*
Entomology, Ph.D.

Expected Grad: 2025

Dissertation: “*The spatiotemporal distribution of Calliphoridae in Southern California and their adaptations to thermal stress*”

John Jay College of Criminal Justice, CUNY – *New York, NY*
Forensic Science, B.S. (Hons.)

2015-2019

- concentration in Molecular Biology
- minor in Mathematics

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

AWARDS

2023 RADCamp Travel Award, *Columbia University*
Graduate Student Association Travel Award, *University of California Riverside*

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

RESEARCH EXPERIENCE

University of California, Riverside
MURILLO LAB – Amy Murillo, PhD **October 2021 – present**
“The spatiotemporal distribution of Calliphoridae in Southern California and their adaptations to thermal stress”

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”

TEACHING EXPERIENCE

University of California, Riverside

Teaching Assistant

Guest Lectures

- 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 40 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 (25 presentations, 5 invited, 3 international)

1. **Invited Talk**: "From the desert to the sea: An inventory of blow flies in southern California". Seattle, WA. April 2023
2. **Invited Talk**: "Infographics 101: Techniques for Effective Visual Communication". Virtual, Entomological Society of America. April 2023
3. **Poster**: "Blow Fly (Diptera: Calliphoridae) Community Structure Across Urban-Natural Landscapes in Southern California". Riverside, CA. March 2023
4. **Invited Talk**: "Putting the graphic in infographic". Vancouver, BC. November 2022
5. **Poster**: "Blow flies (Calliphoridae) of Joshua Tree". Vancouver, BC. November 2022
6. **Invited Talk**: "Putting the graphic in infographic". Riverside, CA. November 2022
7. **Talk**: "Where are the Calliphorids?: an inventory of blow flies in Southern California". Riverside, CA. September 2022
8. **Poster**: "An Evaluation of Trapping Methodology for a Southern California Blow Fly Survey". Riverside, CA. March 2022.

9. **Invited Talk:** "PRISM Alumni Panel: All About Graduate School". Virtual. January 2022
10. **Talk:** "The Distribution and Diversity of Calliphoridae in Southern California". Virtual. January 2022
11. **Infographic:** "When Puberty Hits Different: abnormal juvenile hormone signaling in hemimetabolous and holometabolous insects". Denver, Colorado. November 2021
12. **Poster:** "A novel strategy to study loss of juvenile hormone signaling in *Drosophila melanogaster*". Virtual. October 2021
13. **Infographic:** "The Case of the Perplexing Phenotypes: Juvenile Hormone Signaling in *Drosophila melanogaster*". Virtual. November 2020
14. **Talk:** "Identifying and Characterizing a Juvenile Hormone Transporter in *Drosophila melanogaster*". Virtual. April 2020
15. **Poster:** "Drunk Flies: Oviposition Preferences of the Blow fly *Lucilia sericata* (Meigen) on Ethanol-Treated Mediums". New York, New York. March 2019
16. **Poster:** "Establishing a Protocol for Tissue Differentiation in *Lucilia sericata* (Meigen)". New York, New York. March 2019
17. **Talk:** "Choose Charlene: What's Wrong With You? A New Way to Consider the Core Observation of Quantum Mechanics" New York, New York. March 2019
18. **Poster:** "Detection of Drug Metabolites in *Lucilia sericata*". New York, New York. May 2018
19. **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. November 2018
20. **Poster:** "Detection of Drug Metabolites in *Lucilia sericata*". New York, New York. May 2018
21. **Talk:** "The Diversity of Forensically Important Flies in New York City". Denver, Colorado. November 2017
22. **Poster:** "Mapping of Bt Cry2Ab resistant gene in the cabbage looper, *Trichoplusia ni*". Denver, Colorado. November 2017
23. **Poster:** "Understanding the Molecular Mechanism of Insect Resistance to Bt Toxin Cry2Ab". USDA NIFA Project Directors Meeting. Washington, D.C. October 2017
24. **Poster:** "Analysis of mutations and expression of ABCA1 and ABCA2 genes in cabbage loopers resistant to Bt toxin Cry2Ab". Geneva, New York. July 2017
25. **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. **Workshop:** "All About Maggots: Maggot Art & Blow fly behavior". Riverside, CA. 2023 March

2. **Invited Talk:** “All About Forensic Entomology”. Riverside, CA. 2023 March
3. **Talk:** “Murder & Maggots: Can you solve this crime?”. Riverside, CA. 2023 February
4. **Workshop:** “How to improve your scientific posters”. Riverside, CA. 2022 September
5. **Panel:** “Medical, Urban, & Veterinary Entomology in California”. Riverside, CA. 2022 April
6. **Panel:** “Community Science & how to get involved”. Riverside, CA. 2022 April
7. **Talk:** “How to present your research creatively”. Riverside, CA. 2021 April
8. **Talk:** “How to read a research paper and not cry”. Skype a Scientist. Virtual. 2020 October
9. **Talk:** “Insects go through puberty too!”. Skype a Scientist. Virtual. 2019 October

PROFESSIONAL PUBLICATIONS (Peer-Reviewed)

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

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 - present

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

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

Newsletters and Technology Representative, 2022-23

Twitter Manager, 2019 – present

Outreach Student Representative, 2021-22

Seminar Committee Representative, 2019-21

University of California, Riverside

Graduate Academic Integrity Committee Student Member, 2020-present

PROFESSIONAL TRAINING

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

Entomological Society of America

North America Forensic Entomology Association

North American Dipterists Society