

JOSEPH A. ROSS, PH.D.

Virginia Stammer Eaton Professor of Genetics and Molecular Biology

Department of Biology
California State University, Fresno
2555 E. San Ramon, M/S SB73
Fresno, CA, USA 93740

Office Telephone +1-559-278-4074
jross@csufresno.edu
<http://www.rossbiology.com/>
X & Bluesky: @rossbiology
<https://youtube.com/@JosephRoss>

CONTENTS

I. Education

II. Employment and Appointments

III. Research Communication

[Manuscripts](#)

[My Oral Research Presentations](#)

[My Poster Research Presentations](#)

IV. Teaching & Mentoring

[Courses Taught](#)

[Faculty Professional Development Leadership](#)

[Pedagogy Workshops Led, Presentations, and Media](#)

[Professional Development Activities](#)

[Graduate Research Mentees](#)

[Undergraduate Research Mentees](#)

[Student Oral and Poster Presentations](#)

[Student Funding](#)

[Thesis Committee Membership](#)

[Advising](#)

V. Funding

[Biology Research Funding](#)

[Education Activity and Research Funding](#)

[Professional Development Funding](#)

VI. Awards and Honors

VII. Service & Synthesis

[Society Memberships](#)

[University Service](#)

[Reviewing](#)

[Research Collaborations](#)

[Research Seminar Hosting](#)

[Other Professional Service](#)

[Public Outreach](#)

EDUCATION

- 2002—2008 Ph.D. Molecular and Cellular Biology
University of Washington (Seattle, WA)
“The evolution of sex-chromosome systems in stickleback fishes.”
Dissertation Advisor: Catherine Peichel, Ph.D.
Fred Hutchinson Cancer Research Center (FHCRC)
- 1996—2000 B.A. Biochemistry, *magna cum laude* and Departmental Honors
University of Oregon (Eugene, OR)
“DNA-TATA Binding Protein interactions during transcription initiation.”
Honors Project Advisor: Diane Hawley, Ph.D.

EMPLOYMENT AND APPOINTMENTS

- 2023— Virginia Stammer Eaton Professor of Genetics and Molecular Biology
Department of Biology,
College of Science and Mathematics (CSM),
California State University, Fresno (CSU Fresno)
- 2018—2023 Associate Professor with Tenure, Biology, CSM, CSU Fresno
- 2012—2018 Assistant Professor, Biology, CSM, CSU Fresno
- 2008—2012 Post-Doctoral Research Associate / Fellow
Eric Haag Laboratory, Department of Biology
University of Maryland, College Park (UMCP)
- 2001—2002 Research Technician
Barbara Trask Laboratory
Fred Hutchinson Cancer Research Center (Seattle, WA)
- 2000—2001 Quality Assurance / Quality Control Technician
GeneSpan, Inc. (Bothell, WA) – representing LabTemps

RESEARCH COMMUNICATION

Manuscript Metrics ([Google Scholar](#)); ORCID [0000-0001-6553-2591](#)

Peer-reviewed research manuscripts: 15 h-index: 11 Citations: 2,179

Biology Research Publications († undergraduate author, †† graduate author)

- 2024 Hernandez E††, **Ross JA** and Dejean L. “Evidence of compensation for mitochondrial reactive oxygen species increase in *Caenorhabditis briggsae* cytoplasmic-nuclear hybrids.” *microPublication Biology* [10.17912/micropub.biology.001319](#)
- 2024 Helwick K†† and **Ross JA**. “Reciprocal restriction fragment length polymorphism (RFLP) analysis reveals mitochondrial heteroplasmy in *Caenorhabditis briggsae* hybrids.” *microPublication Biology* [10.17912/micropub.biology.001306](#)
- 2022 Velazco-Cruz L† and **Ross JA**. “Genetic architecture and temporal analysis of *Caenorhabditis briggsae* hybrid developmental delay.” *PLoS One* <https://doi.org/10.1371/journal.pone.0272843>
- * Research suspended March–September 2020 due to COVID-19 *
- 2020 Peichel CL, McCann SR, **Ross JA**, *et al.* “Assembly of the threespine stickleback Y chromosome reveals convergent signatures of sex chromosome evolution.” *Genome Biol* **21**:177.
- 2019 Cazares E† and **Ross JA**. “Temperature-dependent mitochondrial-nuclear epistasis.” *microPublication Biology* [10.17912/micropub.biology.000147](#) PMC7252347
- 2018 Haddad R††, Meter B, **Ross JA**. “The genetic architecture of intra-species hybrid mitochondrial-nuclear epistasis.” *Front Genet* <https://www.frontiersin.org/articles/10.3389/fgene.2018.00481/abstract>
- 2016 **Ross JA**, Howe DK, Coleman-Hulbert A, Denver DR, Estes S. “Paternal mitochondrial transmission in intra-species *Caenorhabditis briggsae* hybrids.” *Mol Biol Evol* **33**(12):3158–3160
- 2016 Chang C-C†, Rodriguez J†, **Ross JA**. “Mitochondrial-Nuclear Epistasis Impacts Fitness and Mitochondrial Physiology of Inter-population *Caenorhabditis briggsae* Hybrids.” *G3* **6**:209–219.
- 2011 **Ross JA**, Koboldt DC, Staisch JE, Chamberlin HM, Gupta BP, Miller RD, Baird SE and Haag ES. “*Caenorhabditis briggsae* recombinant inbred line genotypes reveal inter-strain incompatibility and the evolution of recombination.” *PLoS Genet* **7**(7): e1002174.
- 2009 Kitano J, **Ross JA**, Mori S, Kume M, Jones FC, Chan YF, Absher DM, Greenwood J, Schmutz J, Myers RM, Kingsley DM and Peichel CL. “A role for a neo-sex chromosome in stickleback speciation.” *Nature* **461**(7267): 1079–1083.
- 2009 **Ross JA**, Urton JR, Boland J, Shapiro M and Peichel CL. “Turnover of Sex Chromosomes in the Stickleback Fishes (*Gasterosteidae*).” *PLoS Genet* **5**(2): e1000391.
- 2008 **Ross JA** and Peichel CL. “Molecular cytogenetic evidence of rearrangements on the Y chromosome of the threespine stickleback fish.” *Genetics* **179**: 2173–2182.
- 2004 Peichel CL, **Ross JA**, Matson CK, Dickson M, Grimwood J, Schmutz J, Myers RM, Mori S, Schluter D and Kingsley DM. “The master sex-determination locus in threespine sticklebacks is on a nascent Y chromosome.” *Current Biology* **14**:1416–1424.

- 2003 Young JM, Shykind BM, Lane RP, Tonnes-Priddy L, **Ross JA**, Walker M, Williams EM, Trask BJ. “Odorant receptor expressed sequence tags demonstrate olfactory expression of over 400 genes, extensive alternate splicing and unequal expression levels.” *Genome Biology* **4**:R71.
- 2002 Young JM, Friedman C, Williams EM, **Ross JA**, Tonnes-Priddy L, Trask BJ. “Different evolutionary processes shaped the mouse and human olfactory receptor gene families.” *Human Molecular Genetics* **11**:535–546.

Preprint Publications († undergraduate author with Ross; †† graduate author)

- 2019 Adineh S†† and **Ross JA**. “The ebb and flow of heteroplasmy during intra-species hybridization in *Caenorhabditis briggsae*.” *BioRxiv*
<http://biorxiv.org/cgi/content/short/623207v1>

Review Manuscripts

- 2023 Delmore K, Justen H, Kay K, Kitano J, Moyle L, Stelkens R, Streisfeld M, Yamasaki Y and **Ross J**. “Genomic approaches are improving taxonomic representation in genetic studies of speciation.” *Cold Spring Harb Perspect Biol*.
 DOI: 10.1101/cshperspect.a041438

Education and Pedagogy Publications (peer-reviewed)

- 2022 **Ross JA**. “Responsible and Ethical Conduct of Research: Instruction on Plagiarism.” *CourseSource* <https://doi.org/10.24918/cs.2022.18>
- 2016 **Ross JA**. “Predicting and classifying effects of insertion and deletion mutations on protein coding regions.” *CourseSource* **3**. <https://doi.org/10.24918/cs.2016.18>

Other Publications

- 2024 **Ross JA**. Letter. “Advancing research ethics instruction in laboratory courses.” *J Mol Biol Educ* <https://doi.org/10.1128/jmbe.00106-24>
- 2007 **Ross JA**. Correspondence. “Colour-blindness: how to alienate a grant reviewer.” *Nature* **445**:593. <https://www.nature.com/articles/445593c>

Oral Research Presentations (Invited and Submitted)

- 2024 “Genetic incompatibility elicits meiotic nondisjunction in *C. briggsae* hybrids” Bay Area Worm Meeting
- 2021 “The Molecules that Define Species” Fresno State Biology Seminar Series
- 2020 Rodriguez, Velazco, Montgomery, Lauri, Montelongo and Ross. “Temporal and genetic analysis of an intra-species hybrid dysfunction phenotype” Worm Evolution Conference
- 2019 “The Molecules that Define Races, Species, & Everything in Between” Cal. Poly. San Luis Obispo Biology Seminar Series
- 2019 “The Molecules that Define Races, Species, & Everything in Between” Fresno State Biology Seminar Series
- 2018 “Mitochondrial dysfunction influences development and nuclear allele segregation in intra-species hybrids” Society for Integrative and Comparative Biology (San Francisco)

- 2017 “Genetics Course Augmentation with Technology: a framework for enhancing active learning using mobile devices” National Association of Biology Teachers (St. Louis)
- 2017 “If you can’t stand the heat, get your X to the tropics” Evolution 2017
- 2017 “Clues to hybrid developmental dysfunction” West Coast Society for Developmental Biology Meeting
- 2016 “The genetic architecture of hybrid dysfunction in *Caenorhabditis briggsae*” Evolution of *Caenorhabditis* and other Nematodes, Cold Spring Harbor.
- 2015 "A tale of two genomes: Genetic incompatibilities in the nematode *Caenorhabditis briggsae*" University of San Francisco Biology Seminar Series
- 2015 CSU Fresno Plant Health Society research presentation
- 2015 "A tale of two genomes: Genetic incompatibilities in the nematode *Caenorhabditis briggsae*" Cal. Poly. San Luis Obispo Biology Seminar Series
- 2014 "A selection scheme for studying male mitochondrial transmission in *Caenorhabditis briggsae*" Evolution 2014
- 2014 "Who's your daddy? Studying the genetic impact of parents on the fitness of their children using *Caenorhabditis briggsae*." CSU Stanislaus Biology Seminar Series
- 2013 "Elucidating the cellular and genetic basis of hybrid dysfunction between wild isolates of *Caenorhabditis briggsae*," Evolution 2013
- 2012 CSU Fresno Beta Beta Beta Biology Club research presentation
- 2012 “Evolution of Hybrid Genetic Interactions in *Caenorhabditis briggsae*.” Southeast Missouri State University Biology Seminar Series
- 2012 “Evolution of Hybrid Genetic Interactions in *Caenorhabditis briggsae*.” Rice University Biology Seminar Series
- 2012 “Evolution of Hybrid Genetic Interactions in *Caenorhabditis briggsae*.” University of Colorado, Denver Biology Seminar Series
- 2012 “Evolution of Hybrid Genetic Interactions in *Caenorhabditis briggsae*.” Huntingdon College Biology Seminar Series
- 2012 “Evolution of Hybrid Genetic Interactions in *Caenorhabditis briggsae*.” University of North Carolina, Charlotte Biology Seminar Series
- 2012 “Evolution of Hybrid Genetic Interactions in *Caenorhabditis briggsae*.” University of Central Oklahoma Biology Seminar Series
- 2012 “Evolution of hybrid genetic interactions in *Caenorhabditis briggsae*,” Evolution of *Caenorhabditis* and other Nematodes, Cold Spring Harbor.
- 2011 “Non-*elegans Caenorhabditis* species: resources and methods,” Workshop on Ecology & Evolution, 18th International *C. elegans* Meeting.
- 2010 “The rise and demise of sex-chromosome systems in sticklebacks,” University of Maryland, College Park Behavior, Ecology, Evolution & Systematics Seminar.
- 2010 "The rise and demise of sex-chromosome systems in sticklebacks," University of Pittsburgh, Ecology and Evolution Seminar Series.
- 2006 “Evolution of sex chromosomes in stickleback fishes,” Fourth International Symposium on Vertebrate Sex Determination (Kona, HI)

Ross’ Poster Presentations († CSU Fresno undergraduate & †† graduate student)

- 2024 Pereira-Fita††, Lee†, and **Ross** "Genetic incompatibility increases meiotic nondisjunction in intra-species *C. briggsae* hybrids" The Allied Genetics Conference

- 2024 Kendoyan and **Ross** "Integrating Research Ethics Instruction in a Genetics CURE" The Allied Genetics Conference
- 2023 Kendoyan and Ross "Virtual and in-person CUREs for one genetics course Approaches and Student Outcomes" CSUPERB Symposium
- 2022 Pereira-Fita L††, Montgomery J††, Rodriguez J†, Velazco-Cruz L†, Lauri M†, Montelongo M†, and **Ross JA**. "Characterization of hybrid genetic incompatibilities within *Caenorhabditis briggsae*" Evolution 2022.
- 2022 Genetics Society of America: Population, Evolutionary and Quantitative Genetics (PEQG) Conference, Asilomar
- **Ross JA** "Integrating genetic incompatibility research and research ethics training in a course-based undergraduate research experience (CURE)"
 - Montgomery J††, Rodriguez J†, Velazco-Cruz L†, Lauri M†, Montelongo M†, and **Ross JA** "Genetic Architecture and Temporal Analysis of Developmental Delay in intra-species *Caenorhabditis briggsae* hybrids"
- 2020 Haddad R††, Lauri M†, Meter B, Montelongo M†, Montgomery J††, Pavic B†, Rodriguez J†, Takhar S†, Velazco-Cruz L† and **Ross J**. "RILs, NILs, and cybrids: genetic and organismal effects of mitotype." The Allied Genetics Conference (*not presented due to COVID-19*)
- 2020 **Ross J**. "The new 'Rs': An undergraduate genetics lab course for reading, writing, and research replication." The Allied Genetics Conference (*not presented due to COVID-19*)
- 2019 Adineh S, Aguilar A, Chahal G, Jorgensen C, Ortega B and Ross J. "The tempo of paternal mitochondrial transmission in *Caenorhabditis briggsae* hybrids." International *C. elegans* Meeting
- 2019 Haddad R††, Tukhar S†, and **Ross J**. "Effects of mitochondrial-nuclear epistasis & temperature (GxGxE) on intra-species hybrid incompatibility." Gordon Research Conference: Speciation
- 2018 Genetics Society of America: Population, Evolutionary and Quantitative Genetics (PEQG) Conference, Madison WI
- Adineh S†† and **Ross J**. "Fitness benefits of paternal mitochondrial transmission in intra-species hybrids"
 - Haddad R†† and **Ross J**. "Temperature effects on Mendelian inheritance in intra-species hybrids"
- 2018 Adineh S†† and **Ross J**. "Fitness benefits of paternal mitochondrial transmission in intra-species hybrids." Society for Integrative and Comparative Biology (San Francisco).
- 2018 **Ross J**. "A model for course backward design: aligning outcomes and assessments with Bloom's taxonomy and Vision & Change." Society for Integrative and Comparative Biology (San Francisco.)
- 2017 Adineh S†† and **Ross J**. "Fitness benefits of paternal mitochondrial transmission (PMT) in hybrids." Evolution 2017.
- 2015 **Ross J**. "Tablet computer-based active & blended learning in an undergraduate genetics course." Gordon Research Meeting: Undergraduate Biology Education Research
- 2015 Mouanoutoua H†, Chang C-C†, Ortega B††, Velazco L†, and **Ross J**. "Investigation of genetic mechanisms of hybrid dysfunction reveals evidence of male mitochondrial transmission." 20th International *C. elegans* Meeting
- 2015 **Ross J** and Rodriguez J†. "Mitochondrial-nuclear epistasis & hybrid dysfunction in *Caenorhabditis briggsae*." Gordon Research Conference: Speciation

- 2014 **Ross J**, Montgomery J††, and Ortega B††. "Genetic architecture of hybrid less-function in *Caenorhabditis briggsae*." Evolution 2014
- 2011 **Ross J**, Koboldt D, Staisch J, Baird S, Chamberlin H, Gupta B, Miller R and Haag E. "The Evolution of Genetic Incompatibility in *Caenorhabditis briggsae*." Gordon Research Conference: Ecological and Evolutionary Genomics.
- 2011 **Ross J**, Koboldt D, Staisch J, Baird S, Chamberlin H, Gupta B, Miller R and Haag E. "The Evolution of Genetic Incompatibility in *Caenorhabditis briggsae*." 18th International *C. elegans* Meeting.
- 2011 **Ross J**, Dooling R, and Popper A. "Establishing an Association of Post-Docs, by Post-Docs." 9th Annual Meeting of the National Postdoctoral Association.
* Best Poster Award *
- 2010 **Ross JA**, Koboldt DC, Staisch JE, Baird SE, Chamberlin HM, Gupta BP, Miller RD and Haag ES. "High-density genotyping in *Caenorhabditis briggsae* advanced-intercross recombinant inbred lines reveals unexpected inter-strain genomic incompatibilities." Evolutionary Biology of *Caenorhabditis* and Other Nematodes.
- 2005 **Ross JA**, Blahm AM and Peichel CL. "Evolution of genetic sex determination in sticklebacks (*Gasterosteus* spp.)" Northwest Reproductive Sciences Symp. Seattle, WA.
- 2004 **Ross JA** and Peichel CL. "Evolution of sex determination mechanisms and sex chromosomes in stickleback fish." EVO-WIBO (Evolutionary Biology Conference of Washington, Idaho, British Columbia, and Oregon).
* Student Presentation Award *
- 2003 **Ross JA** and Peichel CL. "Evolution of sex determination mechanisms and sex chromosomes in stickleback fish." American Indian Science and Engineering Society National Conference.
* Best Graduate Student Poster Award *

TEACHING & MENTORING

Teaching Experience

2023— Professor, CSU Fresno

2018—2023 Associate Professor with Tenure, CSU Fresno

2012—2018 Assistant Professor, CSU Fresno

Total undergraduates taught as instructor of record: 1,642

Total graduate students taught as instructor of record: 392

Courses and Enrollments

	BIOL 102	BIOL 104	BIOL 105	BIOL 155	BIOL 180/ 280	BIOL 224	BIOL 241	BIOL 248	BIOL 273	BIOL 281
Fall 2012			30 [§] (4.5)				11 [§] (4.8)			
Spr 2013				25 [§] (4.8)	15 [§] (4.7)			14 [§] (4.6)		
Fall 2013	74 [§] (4.4)		41 (4.9)		18 [§] (4.8)					
Spr 2014								16 [§] (4.4)		6 [§] (4.8)
Fall 2014	84* ^{§†} (4.7)	20 [§] (4.5)			15 [§] (4.7)		6 [§] (4.3)			
Spr 2015	95 [†] (4.5)					5 [§] (4.9)			20 ^{§†} (4.5)	12 [§] (4.5)
Fall 2015	75 [†] (4.5)									
Spr 2016	89 [†] (4.7)	CURE	71 [†] (4.4)						8 [†] (4.8)	
Fall 2016		CURE					21 [†] (4.7)			
Spr 2017	85 [†] (4.1)	CURE							24 (4.5)	
Fall 2017	74 [†] (4.5)	CURE								
Spr 2018		CURE							17 (4.7)	

Number of Students Enrolled

(2012–2018: IDEA Center Student Ratings of Evaluation Raw Summary Evaluation Score, maximum 5.0;
2018–: Fresno State Student Ratings of Instruction Overall Score, maximum 5.0)

§ New prep or significant revision effort required each subsequent semester

† DISCOVERe (tablet computer-based instruction) course

* Two sections (enrollments 54 and 30, taught by traditional and tablet-based instruction; both rated 4.7)

I redesigned BIOL 104 as a Course-based Undergraduate Research Experience (CURE) in 2016 and have since coordinated the multiple (5–7) sections of that course each semester

	BIOL 102	BIOL 104	BIOL 105	BIOL 155	BIOL 180/ 280	BIOL 189T/ 260T	BIOL 224	BIOL 241	BIOL 248	BIOL 273	BIOL 281
Fall 2018	<i>sabbatical</i>										
Spr 2019		CURE						15 [†] (4.6)		17 [†] (4.6)	
Fall 2019	60 [†] (4.62)	CURE					10 [†] (4.62)				
Spr 2020		CURE						10 ^{†*} (4.83)		25 ^{†*} (4.8)	
Fall 2020	69 ^{†*} (4.53)	CURE					15 ^{†*} (4.66)				
Spr 2021	72 ^{†*} (4.78)	CURE			70 ^{§*} (4.62)					25 ^{†*} (4.79)	
Fall 2021	63 ^{†*} (4.48)	CURE					11 (4.82)			18 (4.94)	
Spr 2022	70 ^{†*} (4.69)	CURE			75 & 26 ^{§^}					18 (4.67)	
Fall 2022		CURE				5 ^{§.1} (4.8)	14 (4.7)			18 (4.6)	
Spr 2023	60 ^{†*} (4.8)	CURE				23 ^{§.2} (4.7)				9 (5.0)	
Fall 2023	69 ^{†*} (4.6)	CURE					9 (4.9)			9 (4.7)	
Spr 2024	59 ^{†*} (4.8)	CURE				16 ^{§.2} (4.6)				17 (4.7)	
Fall 2024	100 ^{†*} ()	CURE					5 [^]			18 ()	
Total	1,198	20	142	25	219	44	69	63	30	243	18

Number of Students Enrolled

(2012–2018: IDEA Center Student Ratings of Evaluation Raw Summary Evaluation Score, maximum 5.0;
2018–: Fresno State Student Ratings of Instruction Overall Score, maximum 5.0)

§ New prep, or significant revision effort required each semester

† DISCOVERe (mobile device-based instruction) course

* Virtual or HyFlex instruction

^ Not evaluated

I redesigned BIOL 104 as a Course-based Undergraduate Research Experience (CURE) in 2016 and have since coordinated the multiple (3–7) sections of that course each semester

Undergraduate Courses

BIOL 102 Genetics
BIOL 104 Cell Biology & Genetics Lab
BIOL 105 Evolution
BIOL 155 Developmental Biology
BIOL 180/280 Biology Colloquium
(formerly 189T/260T)
BIOL 189T¹ Graphic Design for
Scientists (Fall 2022)
BIOL 189T² Human Genetics
(Spring 2023, 2024)

Graduate Courses

BIOL 241A/B Molecular Biology I/II
BIOL 248 Biotechnology Seminar
BIOL 273 Applied Bioethics (formerly 260T)
BIOL 224 Evol. Development (formerly 270T)
BIOL 281 Biology Seminar
BIOL 260T² Human Genetics (Spring 2023,
2024)

- 2011—2012 Course Assistant, Bioethics (CBMG 688B) Dr. Anne Simon, University of Maryland, College Park
- 2004 Graduate Teaching Assistant, Gene Structure and Function (GS372) Dr. Janet Kurjan, Department of Genome Sciences, University of Washington

Guest Lecturing

- 2023 CSU Fresno CHEM 240T, Dr. Kalyani Maitra (20 November)
- 2017 CSU Fresno BIOL 150, Dr. Alice Wright (5 and 10 April)
- 2016 CSU Fresno PLANT 150, Dr. Bruce Roberts (April 26)
- 2015 CSU Fresno BIOL 1A, Dr. Alejandro Calderón-Urrea (December 9)
- 2014 CSU Fresno BIOL 11, Dr. Ruth Kern (November 20)
- 2014 CSU Fresno CHEM 156, Dr. Laurent Dejean (November 4)
- 2014 CSU Fresno BIOL 104, Dr. Alejandro Calderón-Urrea (October 21)
- 2013 CSU Fresno BIOL 105, Dr. Paul Crosbie (February 8, 22; March 22)

Faculty Professional Development Leadership

- 2024 Led my “Designing Course-based Undergraduate Research Experiences (CUREs)” workshop for the Fresno State “STEAM: Enriched Pathways” US Department of Education grant (13 new participants)
- 2023 Led my “Designing Course-based Undergraduate Research Experiences (CUREs)” workshop for the Fresno State “STEAM: Enriched Pathways” US Department of Education grant (14 new participants)
- 2022 Led my “Designing Course-based Undergraduate Research Experiences (CUREs)” workshop for the Fresno State “STEAM: Enriched Pathways” US Department of Education grant (12 new participants)
- 2021–2 DISCOVERe Cohort Lead (19 faculty participants)
- 2021 Led an advanced version, including regular office hours, of my “Designing Course-based Undergraduate Research Experiences (CUREs)” workshop for the Fresno State “STEAM: Enriched Pathways” US Department of Education grant (13 participants)
- 2021 Designed and led workshop: “Designing Course-based Undergraduate Research Experiences (CUREs)” for the Fresno State “STEAM: Enriched Pathways” US Department of Education grant (56 participants)
- 2020–1 Facilitator, American Council on Undergraduate Education “Effective Online Teaching Practices” course (28 faculty participants)
- 2020 Facilitator, Fresno State “Foundations of Virtual Instruction” course (21 faculty participants)
- 2020 Facilitator, Fresno State “Foundations of Virtual Instruction” course (25 graduate teaching assistant participants)
- 2016–2018 CSU Course Redesign with Technology: Faculty Cohort Proven Lead (invited)

Pedagogy Training/Outreach: Media, Oral and Poster Presentations

- 2023 “Integrating training on the Responsible and Ethical Conduct of Research (RECR) with authentic genetics research in a CURE” CSUPERB Symposium
- 2022 Featured in article on the Fresno State DISCOVERe Program:
<https://www.visaliatimesdelta.com/story/news/2022/08/26/fresno-state-apple-ipad-give-away-for-students-could-level-playing-field-across-california-college/7896702001/>
- 2021 “CSUCCESS iPad Initiative: An Institutional Perspective” panel presentation at Directors of Educational Technology in California Higher Education Conference
- 2021 “The student perspective on A/V design for hyflex” at Directors of Educational Technology in California Higher Education Conference
- 2021 “Integration of research ethics training in a course-based undergraduate research experience” International *C. elegans* Conference
- 2021 Olimpo, Hernandez, Diaz-Martinez, Berry, Imad, Light, Kleinschmit and Ross “Infusing Responsible and Ethical Conduct of Research (RECR) Education into Course-based Undergraduate Research Experiences in STEM” oral presentation at AAC&U STEM Virtual Conference “Reflecting on, Reckoning with, & Re-Engineering Undergraduate STEM Education”
- 2021 “Research replication in undergraduate lab courses” at Bridging Research and Education With Model ORganisms (BREW MOR) National Conference
- 2021 Developed and led Adobe InDesign workshop for faculty through the Fresno State Center for Faculty Excellence
- 2020 Center for Faculty Excellence “Care Package for Virtual Instruction” distributed to faculty included my “Just in Time Videos, for Faculty by Faculty” videos on, “Letter Grading, Cheating, & Online Summative Assessments,” “Hope for the Best, Plan for the Worst,” “Recording a Presentation Using Zoom,” and “Editing YouTube Captions”
- 2020 Ross, Vieira, Blake, Berrett, and Sanchez “Intentional and Rapid Faculty Training in Virtual Instruction at Scale” panel presentation at Directors of Educational Technology in California Higher Education Conference
- 2020 “Unforeseen benefits of a virtual CURE: the student perspective” presentation at OLC Ideate Labs for Online STEM: Innovating STEM Education
- 2020 “Getting to know Panopto” workshop leader, Center for Faculty Excellence
- 2020 Foundations of Virtual Instruction optional modules leader: “Assignments, discussions, and grading in Canvas,” “Google collaboration and assignments in Canvas,” and “Panopto”
- 2020 “Unforeseen benefits of the transition to a virtual CURE from the student perspective” at the CSUPERB Virtual CURE Mini-Symposium
- 2020 “Use of videos” presentation at the Fresno State Provost’s webinar on Good Practices for Online Instruction
- 2020 “Surviving Spring and Anticipating Autumn” panelist for Fresno State Center for Faculty Excellence
- 2020 “Facets of Photoshop” workshop for Fresno State Center for Faculty Excellence
- 2020 “Exploring Faculty-Generated Open Educational Resources” workshop for Fresno State Center for Faculty Excellence

- 2019 “Open Educational Resources” to the Zero Cost Course Materials fellows program at CSU Fresno
- 2019 “Designing Authentic Undergraduate Experiences in Research” workshop, co-presented with Michael Ailion, International *C. elegans* Meeting
- 2019 DISCOVERe Summer Insititute breakout sessions (2) “Instructor-created class videos”
- 2019 Featured in article on effective teaching with technology at CSU Fresno: <http://fresnostate.edu/magazine/teaching-with-tech/>
- 2019 Adobe Creative Cloud presentations to Fresno State Academic Affairs Leadership Team; College of Health and Human Services Dean’s Council
- 2019 “Canning the canned classroom presentation” oral presentation at CSU Symposium on Teaching and Learning
- 2019 “Supporting Classroom Innovations by Faculty: Insights from the CSU Course Redesign with Technology (CRT) Program” oral presentation at CSU Symposium on Teaching and Learning
- 2018 Featured in article on the DISCOVERe instruction initiative at CSU Fresno: <http://www.fresnostatenews.com/2018/11/09/discovere-technology-program-transforms-learning-for-12000-students/>
- 2018 “DISCOVERe Mobile Learning” oral presentation at Directors of Educational Technology in California Higher Education Conference
- 2018 “Benefits of Summiting Bloom's Taxonomy in the Cloud” oral presentation at Directors of Educational Technology in California Higher Education Conference
- 2018 Panel presentation at the CSU Technology Conference (Sacramento), “Course Redesign with Technology”
- 2018 CSM Donor Appreciation Reception poster “BIOL 104: Cell Biology and Genetics Lab”
- 2018 CSU Symposium on University Teaching workshops “A: Myth of Content Mastery of the Top Ten Percent” and “Course Augmentation with Technology”
- 2018 “A: myth of content mastery of the top ten percent,” CSU Fresno President’s Showcase of Excellence
- 2018 CSU Course Redesign with Technology: arranged cohort workshop presented by Daniel Ferguson on student group management using the CATME tool
- 2018 CSU Course Redesign with Technology: led cohort workshop on making interactive videos
- 2017 “Putting Video in its Place: Everywhere” oral presentation at Directors of Educational Technology in California Higher Education Conference
- 2017 CSU Course Redesign with Technology: led cohort workshop on the effective use of videos in classes
- 2017 “Course Augmentation with Technology for Dogs” CSU Fresno New Faculty Orientation
- 2017 CSU Course Redesign with Technology Summer Institute: break-out session on lecture capture and the flipped classroom approach
- 2017 CSU Course Redesign with Technology Summer Institute: STARS presentation
- 2017 “A day in the life of a DISCOVERe class” presentation, and panel Q&A, CSU Fresno DISCOVERe Faculty Fellow Summer Institute (presented twice)
- 2017 “Course audio/video capture” Webinar Presentation to CSU Course Redesign with Technology Professional Learning Community

- 2017 “Course Augmentation with Technology: Practices for Enhancing Engagement,”
CSU Fresno President’s Showcase of Excellence
- 2017 Presentation about DISCOVERe (Tablet Instruction) to the CSU Fresno
University Advisory Board
- 2017 CSU Fresno Provost’s Award for Innovation seminar
- 2016–2017 CSU Course Redesign with Technology: Faculty Cohort Proven Lead (invited)
- 2016 Developed and presented CV/resumé-writing workshop to CSM undergraduates
- 2016 Break-out session leader: Technology, Innovation and Teaching workshop,
"Lecture capture, dissemination, and formative assessment best practices"
- 2016 New Faculty Orientation panelist, "Excelling in your first year of teaching"
- 2016 Presented three break-out sessions on the SAMR Model and Educational
Technology, CSU Fresno DISCOVERe Faculty Summer Institute
- 2016 Co-organized (with R. Pun and H. Jones) CSU Fresno Untenured Faculty
Organization workshop on Digital RTP Asset Management
- 2016 DISCOVERe Presentation to CSU Chancellor White
- 2016 Featured in article on the DISCOVERe tablet instruction initiative at CSU Fresno
<https://campustechnology.com/articles/2016/05/10/transforming-teaching-at-fresno-state-with-tablets.aspx>
- 2016 Feature article with video on DISCOVERe in the Fresno State Journal
<http://www.fresnostatejournal.com/vol19no7/feature3.html>
- 2015 DISCOVERe Presentation on YouTube Analytics to USF Delegation
- 2015 Panel presentation, DISCOVERe Faculty Summer Institute
- 2015 “An Apple a Day Keeps the Doctor at Play,” CSU Fresno President’s Showcase
of Excellence
- 2015 Panel presentation, CSU Fresno Student Success Summit
- 2015 Guest presenter at DISCOVERe tablet instruction faculty learning community
(April 6)
- 2015 "Take one tablet and call me in the morning: Blended learning with mobile
technology," Cal. Poly. San Luis Obispo
- 2015 Presentation at CSU Fresno Technology Innovations and Pedagogy Conference
on Engaging Learners
- 2014 Guest presenter at DISCOVERe tablet instruction faculty learning community
(November 6)
- 2014— Writing Tablet Pedagogy blog (<http://tabletpedagogy.blogspot.com>);
subsequently also CurXpert (<http://curxpert.blogspot.com>) and EduProffer
(<http://eduproffer.blogspot.com>)
- 2014 Faculty Panel on Tablet Computer Instruction, CSU Fresno Technology
Innovations and Pedagogy Conference
- 2014 Panel Presentation on Teaching, New Faculty Orientation, CSU Fresno

Professional Development Activities

- 2021—3 Ethics Network for Course-based Opportunities in Undergraduate Research
(ENCOUR) peer mentor
- 2021 Advanced QLT Course in Teaching Online
- 2021 HyFlex training: Fresno State Flexible Course Institute

2020—1 American Council on Undergraduate Education certificate in Effective Online Teaching Practices

2020—1 ENCOUR Fellow: integrating Responsible Conduct of Research training into CUREs

2020 Introduction to Quality Matters course completion

2019 CSU Ideas Lab participant

2018, 9 Course-based Undergraduate Research Experience (CURE) workshop by Erin Dolan

2017 Pedagogy Workshop by Kimberly Tanner (SFSU)

2017 Undergraduate Educator Professional Development Workshop, Evolution 2017

2017 Apple Distinguished Educator Academy

2017 CSU Course Redesign with Technology Summer Institute

2017 CSU Course Redesign with Technology Mid-Year Conference

2016 NSF RUI grant workshop, CSU Fresno

2016 CSU Course Redesign with Technology Summer Institute

2016 NSF WIDER Active Learning Workshop, CSU Fresno

2015, 6 NSF WIDER Grant faculty summer institute participant, CSU Fresno

2015 CSU Fresno ORSP NSF CAREER grant workshop

2015 Education Resource Writing Workshop, 20th International *C. elegans* Meeting

2014—6 FLOCK course redesign member, CSU Fresno NSF WIDER grant

2014— Faculty Fellow, CSU Fresno DISCOVERe (tablet instruction) initiative

2014 NIH RIMI Fellow Manuscript-Writing Workshop

2014 Quality Education for Minority students (QEM) NSF CAREER grant workshop

2014 NIH RIMI Fellow Grant-Writing Workshop

2014 CSU Fresno ORSP NSF CAREER grant workshop

2014 NIH RIMI Fellow Faculty Development Workshop

2013 Active Learning Workshop by Edward Prather

Graduate Research Student Masters Advisor (13; 10 graduated) (*selected accomplishments*)

2023— K. Reyes Barajas (*MS Biology pending*)

2022— S. Cantu-Gutierrez (*MS Biology pending*)

2021— L. Huerta Mora (*MS Biology pending*)

2021—2024 J. Proctor (*MS Biology, employed at EuroFins*)

2019—2022 K. Helwick (*MS Biology, employed at E&J Gallo Wineries*)

2019—2022 L. Pereira-Fita (*MS Biology*)

2018 B. Meter (*research intern from University of Rennes, France; subsequently Ph.D. at Charles U., Prague*)

2017—2019 S. Saini (*PSM Biotechnology, employed at BioMarin*)

2015—2018 E. Johnson (*PSM Biotechnology, employed at APPL Labs, Clovis CA*)

2014—2016 R. Materum (*née Haddad*) (*PSM Biotechnology, 2017 CSM Outstanding Graduate Project Award; Scientist working with Dr. Min Hyung Kang, Doudna Lab, Berkeley*)

2014—2016 S. Adineh (*MS Biology; Ph.D. program at W. Michigan U.*)

2013—2016 B. Ortega (*PSM Biotechnology; Biological Science Technician for Lindsey Burbank, USDA ARS, Parlier CA*)

- 2013—2015 J. Montgomery (*PSM Biotechnology, 2016 Biology Department Outstanding Graduate Project Award; Senior Scientist at PPD*)
- 2012—2014 K. Pham (*PSM Biotechnology, 2015 College of Science and Mathematics Outstanding Graduate Project Award, 2014 Division of Graduate Studies Outstanding Graduate Student Award; Catalent Pharma Solutions, Madison*)

Undergraduate Research Student Mentoring (50) (selected accomplishments)

- 2025— J. Topete Sanchez
- 2025— M. Iraheta
- 2024— A. Hernandez
- 2024— S. Kamboj
- 2024— C. Irasusta
- 2024— K. Galicia Estrada
- 2024— A. Stone
- 2024— E. Nguyen
- 2024 E. Grove
- 2024 H. Saccoccia
- 2024 K. Takahashi
- 2023—2024 V. Sheth
- 2023—2024 K. Lee
- 2023—2024 K. Brown
- 2023—2024 A. Mariscal
- 2023 J. Hibner
- 2023 B. Rocha
- 2023 J. Murray
- 2021—2024 A. Grieco (*Biology Honors Program*)
- 2022—2023 G. Brar
- 2022—2023 L. Qamar
- 2021—2023 K. Reyes Barajas
- 2021—2022 A. Yousaf (*Medical Student at CHSU*)
- 2021—2022 J. Terriquez
- 2019—2022 A. Mallory (*Biology Honors Program*)
- 2019—2022 E. Kim
- 2019—2021 N. Aceves (*Biology Honors Thesis; Rice University doctoral program*)
- 2019—2020 I. Adame (*MS Biology program, Fresno State*)
- 2019—2020 M. F. Balane
- 2017—2020 S. Takhar
- 2017—2019 M. Kalomiris (*NIH Postbac IRTA; UC Santa Cruz science communication graduate program*)
- 2017—2019 A. Aguilar
- 2017—2019 G. Chahal
- 2016—2017 M. Montelongo (*California Health Sciences University, Pharmacy School*)
- 2016—2017 N. Harp
- 2016—2018 E. Cazares-Navarro (*Biology Honors Thesis; Louis Stokes Alliance for Minority Participation*)

- 2016—2017 E. Pano (*2016-7 President, CSU Fresno SACNAS Chapter, Louis Stokes Alliance for Minority Participation, NSF iREU in France with Dr. Christel Carles*)
- 2016—2019 L. Pereira-Fita
- 2016—2019 K. Helwick
- 2015—2017 B. Pavic (*Biology Honors Thesis; UCLA M.D. Primer program*)
- 2015 R. Gabriel
- 2014—2017 M. Lauri (*Biology Honors Thesis; Southern California College of Optometry*)
- 2014—2016 A. Contreras (*Louis Stokes Alliance for Minority Participation*)
- 2014—2015 H. Mouanoutoua (*D.O. school: A.T. Still Univ.*)
- 2014—2015 N. Reetz (*Research Technician, USDA*)
- 2014—2015 J. Hobby
- 2013—2015 H. Salas
- 2013—2015 J. Rodriguez (*Research Technician and Supervisor, APPL Labs*)
- 2012—2016 L. Velazco-Cruz (*Louis Stokes Alliance for Minority Participation; 2014 participant in Washington University's Opportunities in Genomics Research for underrepresented students; 2014-5 President, CSU Fresno SACNAS chapter; 2016 Biology Department Outstanding Undergraduate Student; WUSTL doctoral program*)
- 2012—2015 C-C. Chang (*Downing Scholarship, CSU Fresno College of Science and Mathematics Dean's Medalist, Delegate to 2015 CSU Student Research Competition; U.C. San Francisco Medical School*)

Mentee Poster Oral and Presentations (presenting; † undergraduate; †† graduate student)

- 2024 CSU Fresno High-Impact Practice (HIP) Symposiums from BIOL 104 Fall 2024:
- Poster: Hernandez A†, Chafe D†, Shahinian P†, Kendoyan S and Ross J. "The fecundity of tropical and temperate *C. briggsae* hybrids vs. self-fertilizing hermaphrodites"
 - Poster: Irasusta C†, Reynoso E†, Dion C†, Kendoyan S and Ross J. "Fecundity of tropical and temperate *Caenorhabditis briggsae* in caffeine"
 - Poster: Gill S†, Gill S†, and Saccoccia H†. "The fitness of tropical and temperate strains of *Caenorhabditis briggsae* and temperature"
- 2024 Kendoyan and Ross "Structures and Outcomes of Virtual Human Genomics and In-Person *Caenorhabditis* Genetics CUREs" The Allied Genetics Conference
- 2024 Proctor††, Helwick†† and Ross "Pervasive paternal mitochondrial transmission (PMT) in *C. briggsae* hybrids" The Allied Genetics Conference
- 2024 CSU Fresno High-Impact Practice (HIP) Symposiums from BIOL 104 Spring 2024:
- Poster: Her MK†, Westcott A†, and Kue V† "Measuring fecundities of tropical and temperate strains of *Caenorhabditis briggsae* under UV exposure"
- 2024 Grieco A† and Ross J "Assessing temperature dependence of developmental delay frequencies within intra-species hybrids of *Caenorhabditis briggsae*" Central California Research Symposium
- 2024 CSU Biotechnology Symposium (Santa Clara)
- Poster: Barajas K†† and Ross J "Measuring the Efficacy of Hermaphrodite Self-sperm Depletion in *Caenorhabditis briggsae*"
 - Grieco A† and Ross J "Assessing temperature dependence of developmental delay frequencies within intra-species hybrids of *Caenorhabditis briggsae*"

- 2023 CSU Fresno High-Impact Practice (HIP) Symposiums from BIOL 104 Fall 2023:
- Poster: Ocampo† and Yang† “Measuring Fecundities of Tropical and Temperate Strains of *Caenorhabditis briggsae* in the Presence of *Bacillus subtilis*”
 - Poster: Alvarez†, Diaz†, Hernandez-Rojo†, Puga† “Fecundities of Tropical and Temperate Strains of *Caenorhabditis briggsae* in Caffeine”
- 2023 Grieco† and Ross “Assessing Temperature Dependence of Developmental Delay Frequencies within Intra-species Hybrids of *Caenorhabditis briggsae*” Fresno State Biology Seminar Series
- 2023 CSU Fresno High-Impact Practice (HIP) Symposium from BIOL 104 Spring 2023:
- Poster: Pacudan M†, Buddiga N†, Kendoyan S, Ross J. “Hybrid vigor: effect on fitness”
 - Poster: Figueroa B†, Salha M†, Gonzalez Y†. “Self-fecundity of tropical vs. temperate strains of *Caenorhabditis briggsae* in the presence of different water types.”
 - Recorded talk: Chaidez M†, Elnaggar A†. “Risk of Rheumatoid Arthritis”
<https://youtu.be/-6AdoudoD6o>
 - Recorded talk: Kahlon S†, Rubalcaba J†, Carranza S†. “SNP rs2736990 + Increased risk of Parkinson's Disease” <https://youtu.be/dCUOfI3IrX8>
- 2023 Pereira-Fita†† and Ross J (2022) “Genetic incompatibilities affect fecundity and X-chromosome nondisjunction in *Caenorhabditis briggsae* hybrids” CSUPERB Symposium
- 2022 CSU Fresno High-Impact Practice (HIP) Symposium from BIOL 104 Fall 2022:
- Poster: Rocha B†, Hibner J†, Murray J†, Ross J and Kendoyan S. “Does Temperature Affect Reproductive Fitness in *Caenorhabditis elegans*?”
 - Recorded talk: Lopes K†, Kaur H†, Hedden N†, Gonzalez J† and Kropp J†. “Interpretation of Human Genotype Data: Prostate Cancer”
<https://youtu.be/Ncf8Ih-Nk1k>
 - Recorded talk: Davis A†, Gonzalez Y†, Torres A†, and Biggs C†. “Obesity Risk”
<https://youtu.be/xQbzmkXr36c>
- 2022 CSU Fresno High-Impact Practice (HIP) Symposium from BIOL 104 Spring 2022:
- Johal†, Mueller†, Van†, Kendoyan, “Effects of Caffeine Exposure on Fecundity of *Caenorhabditis briggsae* strains AF16 and HK104”
 - Keobounnam†, Yousaf†, McMills† “Increased risk of psoriasis”
 - Sarieddine†, Kaur†, Youssef†, Ross & Kendoyan, “Temperature effects on fecundity in tropical and temperate strains of *Caenorhabditis briggsae*”
- * Certificate of Distinction *
- 2021 CSU Fresno High-Impact Practice (HIP) Symposium from BIOL 104 Fall 2021:
- Hall†, Thomas† and Ocampo† “Temperature effects on fecundity rates in tropical and temperate strains of *Caenorhabditis briggsae*”
 - Kim†, Moyer† and Ayala Chavez† “Rheumatoid arthritis clinical case: interpreting ancestry data”
- 2021 CSU Fresno High-Impact Practice (HIP) Symposium from BIOL 104 Spring 2021:
- Aldama†, Gill†, Swan†, Kendoyan and Ross “Hemochromatosis”
- 2020 CSU Fresno High-Impact Practice (HIP) Symposium from BIOL 104 Fall 2020:
- Alvarez†, Reusch†, Robles†, Kendoyan and Ross “Multiple Sclerosis: A Look Into The Control of Dopamine In The Brain”
- 2020 Aceves†, Balane MF† and Ross J (2020) “Efficacy of Paternal Mitochondrial Transmission after Fertilization with Male and Female Sperm” CSM Virtual Research Showcase

- 2020 Takhar† and Ross J (2020) “Quantifying Developmental Delay in Intra-Species Hybrids” CSM Virtual Research Showcase
- 2020 Takhar† and Ross. “Quantifying Developmental Delay in Intra-Species Hybrids” Central California Research Symposium (not presented due to COVID-19)
- 2019 CSU Fresno High-Impact Practice (HIP) Symposium from BIOL 104 Fall 2019:
- De Vera†, Nguyen†, Shin†, Kendoyan and Ross “Sensitivity of fecundity and longevity to varying ethanol concentrations in two populations of *Caenorhabditis briggsae*”
 - Dhesi†, Gonzalez†, Kendoyan and Ross “Heat stress and reproductive recovery in HK104 *Caenorhabditis briggsae*”
 - Alvarez†, Lona†, Rajasekaran†, Whalen and Ross “Temperature-dependent effects on male-hermaphrodite offspring production associates with temperate versus tropical specific strain habitats in *Caenorhabditis briggsae*”
 - Vidal†, Krikorian†, Shepard†, Whalen and Ross “Analyzing the self-fecundity of *Caenorhabditis briggsae* strains AF16, HK104 and the AF16xHK104 hybrid”
- 2019 Kalomiris and Ross “Expression of developmental delay in *C. briggsae* hybrids.” CSM Celebration of Student Research
- 2019 Saini and Ross “Monitoring the fecundity recovery of cybrids in *Caenorhabditis briggsae*.” CSM Celebration of Student Research
- 2019 Saini†† and Ross. “The genetic architecture and tempo of hybrid fitness recovery” Central California Research Symposium
- 2019 Kalomiris† and Ross. “Expression of developmental delay in *C. briggsae* hybrids” Central California Research Symposium
- 2019 Takhar† and Ross. “Mitochondrial-nuclear epistasis affects development in *C. briggsae* hybrids.” Central California Research Symposium
- 2019 CSU Fresno Course-based Undergraduate Research Experience (CURE) Symposium from BIOL 104 Spring 2019:
- Gomez†, O'Keefe†, Lichtenstein†, Martinez†, Raquenio†, Machado†, Shank†, Adineh and Ross. “The effect of hybridization on *C. briggsae* and the arising *him* frequency”
 - Princesa†, Camara†, Kaur†, Sanchez†, Sanchez†, Adineh and Ross. “Trends in the allele frequencies of *C. briggsae* temperate-tropical hybrids”
 - Adame†, Aujla†, Gill†, Leon†, Ricablanca†, Takhar†, Adineh and Ross. “Expression of tropical and temperate strains in *Caenorhabditis briggsae* hybrids”
 - Chavez†, Paniagua†, Saechao†, Adineh and Ross. “The effects of hybridization on temperate and tropical *Caenorhabditis briggsae* strains at 20°C”
- 2019 Takhar† and Ross. “Mitochondrial-nuclear genetic incompatibility causes hybrid developmental delay.” CSUPERB Symposium.
- 2019 Saini†† and Ross. “The genetic architecture and tempo of hybrid fitness recovery.” CSUPERB Symposium.
- 2018 CSU Fresno Course-based Undergraduate Research Experience (CURE) Symposium from BIOL 104 Spring 2018:
- Taha A†, Blanco J†, Grootendorst K†, Castenada V†, Adineh S and Ross J. “Analysis of Development Rate in Cybrids Originating from HK104 and AF16 *C. briggsae* Strains”
 - Sanchez LG†, Vang G†, Kanwar P†, Adineh S and Ross J. “Comparison of *Caenorhabditis briggsae* Hybrid FV64 Size to Control Strains, HK104 and AF16”
 - Madrigal E†, Purwaha K†, Bajwa B†, Adineh S and Ross J. “Using *Caenorhabditis briggsae* as model systems to observe mitochondrial transmission via growth rates”

- Chavez AB†, Glasser C†, Gonzalez S†, Heu N†, Mohsin G†, Soares G†, Stearns J†, Adineh S and Ross J. “Growth Analysis of *C. briggsae* Mitochondrial and Nuclear Genome Hybrids”
 - Espinoza†, Ordaz†, Sciaroni†, Prieto†, Navarrette†, Ko†, Ross and Adineh. “Effects of temperature on fecundity in *C. briggsae* regional holotypes.”
 - Paulsen†, Holm†, Sekhon†, Warnert†, Zavala†, Yang†, Perez†, Ross and Adineh. “Temperature adaptability in *C. briggsae*.”
 - Cortez†, Helwick†, Kaur†, Nakai†, Tafoya†, Terriquez†, Tokhi†, Ross and Adineh. “Temperature dependence in successive nematode succession.”
 - Martinez†, Acosta†, Rivas†, Moriyama†, Nagi†, Nagi†, Rodriguez†, Ross and Adineh. “Adaptations of tropical and temperate *C. briggsae* species at 20°C and 25°C.”
- 2018 CSM Celebration of Student Research:
- Pereira-Fita L†, Jorgenson C†† and Ross J. “Genetic effects on fitness recovery of dysfunctional hybrids”
 - Cazares-Navarro E† and Ross J. “Temperature effects on genetic inheritance in *Caenorhabditis briggsae*”
 - Rawson M†, Johnson E††, Ross J and Dejean L. “Altered function in mitochondrial nuclear hybrid nematode”
- 2018 Fita L†, Jorgensen C and Ross J. “Genetic effects on fitness recovery of dysfunctional hybrids.” CSUPERB Symposium (Santa Clara)
- 2018 Johnson E††, Dejean L and Ross J. “Altered function in mitochondrial-nuclear hybrid nematodes.” CSUPERB Symposium (Santa Clara)
- 2018 CSM Donor Appreciation Reception:
- Macedo†, Phillips†, Lee†, Adineh and Ross, "Assessment of the phylogenetic relatedness of BW287 to HK104-5 and AF16"
 - Brisco†, Diaz†, Cunningham†, Adineh and Ross, "Genetic comparisons between tropical and temperate *C. briggsae*"
- 2017 CSM CURE Symposium posters from BIOL 104 Fall 2017:
- Macedo†, Phillips†, Lee†, Adineh and Ross, "Assessment of the phylogenetic relatedness of BW287 to HK104-5 and AF16"
 - Hobson†, Crooker†, O'Callaghan†, Adineh and Ross, "Tropical Strain JU725 of *C. briggsae* compared to other tropical and temperate strains"
 - Chauhan†, McGee†, Adineh and Ross, "Assessing the effects of different primers on tropical and temperate strains of *C. briggsae*"
 - Brisco†, Diaz†, Cunningham†, Adineh and Ross, "Genetic comparisons between tropical and temperate *C. briggsae*"
- 2017 Adineh S†† and Ross J. “Quantifying paternal mitochondrial transmission in *Caenorhabditis briggsae* hybrids.” International *C. elegans* Meeting.
- 2017 Pavic B† and Ross J. “Fitness recovery of *Caenorhabditis briggsae* hybrids.” CSM Celebration of Student Research, CSU Fresno
- 2017 Lauri M† and Ross J. “Reactive Oxygen Species and Developmental Delay in *Caenorhabditis briggsae*.” CSM Celebration of Student Research, CSU Fresno
- 2017 Pavic B† and Ross J. “Fitness recovery of *Caenorhabditis briggsae* hybrids.” Bay Area Worm Meeting.
- 2017 Montelongo M†, Pano E†, Rodriguez J†, Jorgensen C and Ross J. “*Caenorhabditis briggsae* hybrid developmental delay is caused by mitochondrial-nuclear mismatch.” Central California Research Symposium

- 2017 Johnson E††, Ross J, Dejean L, Goto J. “Assessing Mitochondrial Function in Experimental *Caenorhabditis briggsae* Hybrids” Central California Research Symposium
- 2017 Lauri M† and Ross J. “Reactive Oxygen Species and Developmental Delay in *Caenorhabditis briggsae*.” Central California Research Symposium
- 2017 Lauri M† and Ross J. “Reactive Oxygen Species and Developmental Delay in *Caenorhabditis briggsae*.” CSUPERB Symposium (Santa Clara)
- 2017 Montelongo M†, Pano E†, Rodriguez J, Jorgensen C and Ross J. “*Caenorhabditis briggsae* hybrid developmental delay is caused by mitochondrial-nuclear mismatch.” CSUPERB Symposium (Santa Clara)
- 2016 Haddad R†† and Ross J. “Investigating adaptability to climate change by monitoring temperature effects on genetic inheritance patterns in *Caenorhabditis briggsae*.” Evolution 2016 (Society for the Study of Evolution).
- 2016 Ortega B†† and Ross J. “Investigating the genetic basis of delayed development with *Caenorhabditis briggsae* recombinant inbred lines.” CSM Celebration of Student Research, CSU Fresno
- 2016 Haddad R†† and Ross J. “Investigating adaptability to climate change by monitoring temperature effects on genetic inheritance patterns in *Caenorhabditis briggsae*.” CSM Celebration of Student Research, CSU Fresno
- 2016 Adineh S†† and Ross J. “Quantifying paternal mitochondrial DNA transmission in *Caenorhabditis briggsae* hybrids.” CSM Celebration of Student Research, CSU Fresno
- 2016 Lauri M† and Ross J. “Reactive oxygen species and developmental delay in *Caenorhabditis briggsae*” CSM Celebration of Student Research, CSU Fresno
- 2016 Contreras A† and Ross J. “A potential impact of climate change on fitness in *Caenorhabditis briggsae*” CSM Celebration of Student Research, CSU Fresno
- 2016 Ortega B†† and Ross J. “Investigating the genetic basis of delayed development with *Caenorhabditis briggsae* recombinant inbred lines.” CSU Fresno Graduate Research and Creative Activities Symposium
- 2016 Haddad R†† and Ross J. “Investigating adaptability to climate change by monitoring temperature effects on genetic inheritance patterns in *Caenorhabditis briggsae*.” CSU Fresno Graduate Research and Creative Activities Symposium
- 2016 Adineh S†† and Ross J. “Quantifying paternal mitochondrial DNA transmission in *Caenorhabditis briggsae* hybrids.” CSU Fresno Graduate Research and Creative Activities Symposium
- 2016 Lauri M† and Ross J. “Reactive oxygen species in *Caenorhabditis briggsae* mitochondria.” Central California Research Symposium
Provost’s Outstanding Undergraduate Poster Award
- 2016 Contreras A† and Ross J. “A potential impact of climate change on fitness in *Caenorhabditis briggsae*” Central California Research Symposium
- 2016 Stanboulia S†, Kendoyan S†, Ross J and Calderón-Urrea A. “Introgression of the *him-5* mutation into the GFP strains ST65 and PD4251 of *Caenorhabditis elegans*.” Central California Research Symposium
- 2016 Contreras A† and Ross J. “A potential impact of climate change on fitness in *Caenorhabditis briggsae*.” CSUPERB Symposium (Garden Grove)
- 2015 Velazco L† and Ross J. “Genetic mapping of developmental delay phenotype in *Caenorhabditis briggsae* tropical x temperate hybrids.” Fresno State WASC Accreditation Site Visit Student Poster Session

- 2015 Montgomery J†† and Ross J. "Genetic mapping of hybrid developmental delay with novel near-isogenic lines of *Caenorhabditis briggsae*." 20th International *C. elegans* Meeting.
- 2015 Ortega B†† and Ross J. "Investigating the genetic basis of delayed development with *Caenorhabditis briggsae* recombinant inbred lines." CSU Fresno Graduate Research and Creative Activities Symposium
- 2015 Chang C-C† and Ross J. "Exploration of mitochondrial dysfunction in nematodes through fat content." CSM Celebration of Student Research, CSU Fresno
- 2015 Hobby J† and Ross J. "Measuring male sperm motility in mitochondria-deficient *Caenorhabditis briggsae* hybrids." CSM Celebration of Student Research, CSU Fresno
- 2015 Reetz N† and Ross J. "Embryonic lethality in hybrid crosses of *Caenorhabditis briggsae*." CSM Celebration of Student Research, CSU Fresno
- 2015 Rodriguez J† and Ross J. "Early onset of speciation by hybrid nuclear-mitochondrial dysfunction in *Caenorhabditis briggsae*." CSM Celebration of Student Research, CSU Fresno
- 2015 Mouanoutoua H† and Ross J. "Who's your daddy? Detecting mitochondrial inheritance in *Caenorhabditis briggsae* using polymerase chain reaction." CSM Celebration of Student Research, CSU Fresno
- 2015 Chang C-C† and Ross J. "Exploration of mitochondrial dysfunction in nematodes through fat content." Central California Research Symposium
- 2015 Hobby J† and Ross J. "Measuring male sperm motility in mitochondria-deficient *Caenorhabditis briggsae* hybrids." Central California Research Symposium
- 2015 Reetz N† and Ross J. "Embryonic lethality in hybrid crosses of *Caenorhabditis briggsae*." Central California Research Symposium
- 2015 Rodriguez J† and Ross J. "Early onset of speciation by hybrid nuclear-mitochondrial dysfunction in *Caenorhabditis briggsae*." Central California Research Symposium
- 2015 Mouanoutoua H† and Ross J. "Who's your daddy? Detecting mitochondrial inheritance in *Caenorhabditis briggsae* using polymerase chain reaction." Central California Research Symposium
- 2015 Velazco L† and Ross J. "Genetic mapping of developmental delay phenotype in *Caenorhabditis briggsae* tropical x temperate hybrids." CSUPERB Symposium (Santa Clara, CA)
- 2015 Chang C-C† and Ross J. "Exploration of mitochondrial dysfunction in nematodes through fat content." CSUPERB Symposium (Santa Clara, CA)
- 2015 Montgomery J†† and Ross J. "Genetic mapping of hybrid developmental delay with novel near-isogenic lines of *Caenorhabditis briggsae*." CSUPERB Symposium (Santa Clara, CA)
- 2015 Nwangwu A††, Ross J, Cheng D, Bhardwaj E, Bushoven J. "Genetic Variability in a Representative 'Kerman x Peters' Population of Pistachio, *Pistacia vera* L." American Society for Agronomy
- 2014 Nwangwu A††, Ross J, Cheng D, Bhardwaj E, Bushoven J. "Genetic Profiling and Variability Study in Representative 'Kerman x Peters' Populations of Pistachio Plants, *Pistacia vera* L." American Society of Agronomy, Crop Science Society of America and Soil Science Society of America International Annual Meeting, Long Beach

- 2014 Velazco L† and Ross J. "Polymerase chain reaction genotyping of developmental delay phenotype in *Caenorhabditis briggsae* hybrids." CSM Celebration of Student Research, CSU Fresno
- 2014 Chang C-C† and Ross J. "Quantification of Fat Levels with Hybrid Dysfunction." CSM Celebration of Student Research, CSU Fresno
- 2014 Rodriguez J† and Ross J. "Exploring speciation in *Caenorhabditis briggsae* through mitochondrial dysfunction in hybrids." CSM Celebration of Student Research, CSU Fresno
- 2014 Pham K†† and Ross J. "Elucidating the cellular and genetic basis of hybrid dysfunction between wild isolates of *Caenorhabditis briggsae*." CSM Celebration of Student Research, CSU Fresno
- 2014 Montgomery J†† and Ross J. "Genetic mapping of hybrid developmental delay with novel near-isogenic lines of *Caenorhabditis briggsae*." CSM Celebration of Student Research, CSU Fresno
- 2014 Pham K†† and Ross J. "Elucidating the cellular and genetic basis of hybrid dysfunction between wild isolates of *Caenorhabditis briggsae*." Central California Graduate Research and Creative Activities Symposium
- 2014 Montgomery J†† and Ross J. "Genetic mapping of hybrid developmental delay with novel near-isogenic lines of *Caenorhabditis briggsae*." Central California Graduate Research and Creative Activities Symposium
- 2014 Chang C-C† and Ross J. "Quantification of Fat Levels with Hybrid Dysfunction." Central California Research Symposium
- *Best Undergraduate Poster Award*
- 2014 Rodriguez J† and Ross J. "Exploring speciation in *Caenorhabditis briggsae* through mitochondrial dysfunction in hybrids." Central California Research Symposium
- 2014 Pham K†† and Ross J. "Elucidating the cellular and genetic basis of hybrid dysfunction between wild isolates of *Caenorhabditis briggsae*." CSUPERB Symposium
- 2013 Velazco-Cruz L† and Ross J. "Assessing the onset of speciation using *Caenorhabditis briggsae* hybrids." Louis Stokes Alliance for Minority Participation Research Program Posterboard Symposium, California State University, Fresno
- 2013 Pham K†† and Ross J. "Testing for a mitochondrial basis of intraspecific genetic incompatibility in *Caenorhabditis briggsae* cytonuclear hybrids." 19th International *Caenorhabditis elegans* Meeting
- 2013 Pham K†† and Ross J. "Elucidating the cellular and genetic basis of hybrid dysfunction between wild isolates of *Caenorhabditis briggsae*." College of Science and Mathematics Celebration of Student Research and Achievements, California State University, Fresno

Competitive Student Research & Travel Funding (total \$41,227.32)

- 2024 V. Sheth: CSM Faculty Sponsored Student Research Award (\$1,000)
- 2022 A. Grieco: Fresno State Undergraduate Research Grant (\$1,500)
- K. Reyes-Barajas: Fresno State Undergraduate Research Grant (\$1,500)
- 2022 L. Pereira Fita: CSUPERB Faculty-Graduate Student Research Collaboration Program (\$10,000)
- 2020 L. Pereira-Fita: CSM Faculty Sponsored Student Research Award (\$1000)
- K. Helwick: CSM Faculty Sponsored Student Research Award (\$1000)
- 2018 S. Saini: CSM Faculty Sponsored Student Research Award (\$972)

- 2017 E. Johnson: CSU Fresno Graduate Research Grant (\$1,000)
- 2016 M. Lauri: CSU Fresno research grant (\$976.32)
B. Pavic: CSU Fresno research grant (\$1,000)
R. Haddad: CSUPERB Conference Travel Award (\$1,500)
- 2015 M. Lauri: CSM Faculty Sponsored Student Research Award (\$714)
S. Haji Adineh: CSM Faculty Sponsored Student Research Award (\$714)
B. Ortega: CSM Faculty Sponsored Student Research Award (\$714)
R. Haddad: CSM Faculty Sponsored Student Research Award (\$1,000)
J. Montgomery: CSUPERB Conference Travel Award (\$1,275)
- 2014 N. Reetz: CSM Faculty Sponsored Student Research Award (\$600)
J. Hobby: CSM Faculty Sponsored Student Research Award (\$1,000)
C-C. Chang: CSM Faculty Sponsored Student Research Award (\$990)
H. Mouanoutoua: CSM Faculty Sponsored Student Research Award (\$780)
H. Salas: CSM Faculty Sponsored Student Research Award (\$850)
N. Reetz: CSU Fresno research grant (\$970)
H. Mouanoutoua: CSU Fresno research grant (\$1,000)
L. Velazco: CSU Fresno research grant (\$972)
- 2013 K. Pham: CSUPERB Conference Travel Award (\$1,200)
C-C. Chang: CSM Faculty Sponsored Student Research Award (\$1,000)
J. Rodriguez: CSM Faculty Sponsored Student Research Award (\$1,000)
K. Pham: CSU Fresno NIH RIMI Faculty-Initiated Student Award (\$5,000)

Masters Committee Membership (65) *(including 13 of my primary advisees)*

- 2012— M. Abou-Naoum, K. Alkhalifah, A. al Subhi, C. Amaya, S. Aucar, M. Aujla, N. Avery, P. Azami, P. Bekal, M. Bhatia, S. Biswas, E. Braschayko, S. Cantu-Gutierrez, S. Carpenter, M. Carranza, Y. Chavan, P. Chawla, J. Cheatham, P. Chhina, T. Combs, R. Elizondo, Franke, H. Gangadharan, P. Gil, M. Gonzales, S. Gorle, S. Gunasekara, R. Haddad, S. Haji Adineh, K. Helwick, A. Hernandez, L. Huerta Mora, Y. Ibarra, D. James, E. Johnson, M. Johnson, C. Jorgensen, P. Lakkaraju, B. Mahmood, A. Manion, T. Melkonian, J. Montgomery, A. Nwangwu, C. Olea, B. Ortega, K. Patterson (Duris), L. Pereira-Fita, K. Pham, J. Proctor, B. Ramos, K. Reyes Barajas, S. Saini, Z. Sarkozi, L. Senn, V. Sharma, S. Shetty, M. Smith, S. Stephanie, R. Tamayo, J. Tyson, X. Vaidya, V. Valdez, K. Vander, A. Wakeman-Hill, W. Whalen, H. Willey

Advising

2020—1 Advising and mentoring a senior undergraduate student at Freedom University
 2016 Staffed Biology Masters program table at CSU Fresno Graduate Resource Fair
 2013, 4 CSU Fresno Preview Day
 2013— Dog Days Advising (9 years, multiple sessions)
 2012— College of Science and Mathematics Advising Days (3)

Semester 'Year	Undergrad Advisees Seen	Graduate Advisees Seen	Recommendations Submitted	New Chair or Member of Project/Thesis Committee
Fall '24	1	2	25	1
Spring+Summer '24	0	4	17	1
Fall '23	7	14	24	1
Spring+Summer '23	11	8	16	2
Fall '22	10	9	34	3
Spring+Summer '22	7	6	8	4
Fall '21	16	9	22	3
Spring+Summer '21	9	2	15	2
Fall '20	6	1	36	3
Spring+Summer '20	5	1	22	1
Fall '19	3	2	27	2
Summer '19	1	0	10	0
Academic Year '18-19*	8	7	76	1
Spring+Summer '18	7	5	17	2
Fall '17**	14	1	39	2
Spring+Summer '17	16	3	18	3
Fall '16	19	2	33	0
Spring+Summer '16	16	1	25	1
Fall '15	13	2	20	3
Spring+Summer '15	18	8	39	4
Fall '14	20	11	20	6
Spring+Summer '14	23	16	21	1
Fall '13	34	12	16	1
Spring+Summer '13	3	12	15	8
Fall '12	3	4	5	5

* During Fall 2018 sabbatical, I had no advising duties

** Advising load began to diminish as CSM instituted a centralized academic advising office

FUNDING & AWARDS

Pending Research Funding

N/A

Active Research Funding

N/A

Completed Research Funding

2020 California State University Program for Education and Research in Biotechnology COVID-19 Research Recovery Microgrant (\$1,427)
2017—2020 PI: NIH R15 AREA “Genetic Basis of Sperm Mitochondrial Elimination” 1R15GM126396 (\$100,000 direct costs/year; 3 years + 2 years no-cost extension)
2019—2020 Subcontract: NSF Ideas Lab at CSUPERB (\$5,900)
2017—2018 PI: Research Development Grant, California State University Program for Education in Research and Biotechnology (\$15,000)
2015—2018 PI: NIH SC2 “Identification of genetic mechanisms preventing male mitochondrial inheritance” 1SC2GM113727 (\$100,000 direct costs/year + 1 year no-cost extension)
2013—2014 PI: New Investigator Grant, California State University Program for Education and Research in Biotechnology (\$15,000)
2010—2012 PI: Ruth Kirschstein NRSA Post-Doctoral Fellowship NIH 1F32GM090492 (\$103,516)
2004—2007 Participant: Cell and Molecular Biology Graduate Training Grant NIH NIGMS T32 GM07270

Attempted Research Funding

2022 Co-PI: NSF ER2 (Ethical and Responsible Research) submitted as Co-PI, “Exploring cultural factors that influence undergraduate ethical conduct in data collection and management”
2020 Co-PI: CSU Agricultural Research Initiative Preproposal, “Harnessing the Soil Microbiome for Improved Nutritional Content in California Agriculture”
2020 Co-PI: California Tomato Research Institute “The Abiotic and Biotic Factors Influencing Tomato Quality”
2020 Co-PI: California Department of Food & Agriculture Preproposal “Harnessing the Soil Microbiome to Improve Crop Nutritional Content”
2020 Co-PD: USDA AFRI “Harnessing the Soil Microbiome to Improve Crop Nutritional Content”
2019 Co-PI: JGI CSP new investigator grant, “The geographical structure, community composition, and the metabolism of soil microbial communities associated with tomato agriculture in California”
2019 PI: CSU STEM-NET “Genetic limits on climate change adaptation”
2016 PI: NSF CAREER Grant “Principles of adaptation to climate change: temperature-dependent epistasis”

- 2016 PI: NSF DEB Core Program Grant Preproposal “Mitochondrial dysfunction: the role of intergenomic epistasis between natural variants”
- 2015 PI: NIH MIRA Grant “Intra-species hybrids and the inter-genomic basis of mitochondrial function”
- 2015 PI: NSF CAREER Grant “The dynamics and consequences of mitochondrial-nuclear co-evolution”

Completed Education Funding

- 2022 Fresno State Provost funding to develop and Lead an Apporto “Tequity” (Technology Equity) Faculty Learning Community for Fall 2022 (13 faculty participants; \$16,500 budget)
- 2016–2017 CSU Chancellor’s Office Course Redesign with Technology (CRT) Lead Faculty (>\$15,998)
- 2014 CSU COAST Research Seminar Award (\$700)
- 2014 CSU Fresno Associated Students Inc. Peter Mehas Memorial Grant: PCR machine and micropipettors for BIOL 104 (\$4,997.86)
- 2013 CSU Fresno CSM Lecture Award (with Dr. D. Lent, co-applicant, \$1,500)

Attempted Education Funding

- 2018 Fresno State DISCOVERe Research Grant (\$5,000 offered; declined)
- 2016 HHMI Inclusive Excellence preproposal (PI Lynnette Zelezny; written by Ross)
- 2016 Society for the Study of Evolution Outreach Grant (\$435)
- 2015 HHMI Inclusive Excellence preproposal (PI CSM Interim Dean Lawson; drafted by Ross, Goto and Chung; submitted 12/1/2015)
- 2015 Phi Kappa Phi Excellence in Innovation Award preproposal (contributed content; submitted by CSU Fresno December 2015)

Professional Development Funding

- 2021 CSU Fresno CSM Scholarly and Creative Activity Award (3 WTU)
- 2021 CSU Fresno Chancellor’s Scholarly and Creative Activity Award (\$5,000)
- 2017 Fresno State Biology Department Minor Travel Award (\$500)
- 2017 Registration Waiver to attend Directors of Educational Technology in California Higher Education conference
- 2017 CSU Fresno CSM Faculty Professional Development Award (\$1,200)
- 2016 CSU Fresno CSM Scholarly and Creative Activity Award (\$5,000)
- 2015 CSUPERB Faculty Travel Grant (\$1,318)
- 2015 CSU Fresno CSM Scholarly and Creative Activity Award (\$5,000)
- 2015 CSU Fresno CSM Faculty Professional Development (Travel) Award (\$1,200)
- 2014 CSU Fresno CSM Faculty Professional Development (Travel) Award (\$1,195)
- 2014 CSU Fresno CSM Scholarly and Creative Activity Award (\$5,000)
- 2014 California State University Program for Education and Research in Biotechnology (CSUPERB) Faculty Travel Grant (\$1,500)
- 2013 CSU Fresno CSM NIH RIMI Faculty Development Award (\$7,000)
- 2012 CSU Fresno CSM Performance Award (\$961)

Attempted Professional Development Funding

2019	CSU Fresno CSM Scholarly and Creative Activity Award (\$5,000)
2016	CSUPERB Faculty Travel Grant (\$1,000)

Awards, Honors, Certifications, and Recognition

2021	American Council on Undergraduate Education certificate in Effective Online Teaching Practices
2021	Advanced QLT Course in Teaching Online certificate
2021	Honorary Faculty Initiate, <i>Phi Kappa Phi</i> Honor Society
2020	Introduction to Quality Matters certificate
2017	Apple Distinguished Educator
2017	Biology Department Outstanding Faculty Publication, Henry Madden Library, CSU Fresno
2016	CSU Fresno Provost's Award for Innovation in Teaching
2015	Nominated to deliver a Fresno State Talks address
2014–2016	Nominated by student trainees for Fresno State Outstanding Advisor award

SERVICE AND OUTREACH

Professional Society Memberships

2024—	American Genetics Association
2023—	Research Ethics Association
2018—	Society for Molecular Biology and Evolution
2017—	National Association of Biology Teachers
2012—	Society for the Study of Evolution
2011—	Genetics Society of America

University Committee Service

2024—	Advisor, Genetic Counseling Club (Associated Students Incorporated)
2024—	Department of Biology: Scholarships and Assessment Committee, Curriculum Committee
2024	Fresno State Biology Department <i>ad hoc</i> Chair: student scholarship application reviewing
2023—4	Department of Biology: Staffing and Scheduling Committee, Graduate/Research Committee, Curriculum Committee
2023	Fresno State Provost's Award Committee
2023	Fresno State Biology Department student scholarship application reviewing
2022—	Cal State Innovate Advisory Council (CSU Office of the Chancellor) member
2022—3	Department of Biology Budget, Space and Facilities Committee
2022	Fresno State Biology Department <i>ad hoc</i> Chair: student scholarship application reviewing
2021—	CSU Chancellor's Office CSUCCESS Evaluation Committee member
2021—2	Biology Department Assessment Committee
2021—3	Fresno State Academic Senate Personnel Committee Student Ratings Subcommittee member
2021	Fresno State Chief Information Officer search committee
2021	Equal Employment Opportunity Designee on the Instructional Designer Search Committee for the Center for Faculty Excellence
2020	Equal Employment Opportunity Designee on the Speech Language Pathologist Faculty Search Committee for Communicative Science and Deaf Studies
2020—	Biology Department Curriculum (and Assessment) Committee
2019—	University Faculty Advisor to CSU STEM-NET affinity group
2019—2	Chair, CSM Curriculum Committee
2019	Hosted U.S. Representative Jim Costa on a research facilities tour at CSU Fresno
2019	Equal Employment Opportunity Designee training
2017—8	Co-Lead, Digital Literacy Faculty Learning Community (Fresno State)
2017	Co-organized (with R. Pun and H. Jones) CSU Fresno Untenured Faculty Organization workshop on Digital RTP Asset Management
2016—2019	CSM Curriculum Committee member (bi-weekly meetings)
2016—2023	Advisor, Fresno State chapter of the Society for the Advancement of Chicanos and Native Americans in Science (SACNAS)

2016—8 Co-Chair, DISCOVERe Task Force Assessment Committee. Monthly meetings.
 2016—2017 Co-Lead, Advanced DISCOVERe Faculty Learning Community. Hosted a DISCOVERe Faculty Cohort 1 and 2 reception, monthly FLC meetings, and two brown-bag lunch workshops
 2015—2018 Member, Fresno State Information and Educational Technology Coordinating Council (IETCC); now Technology Steering Committee)
 2015—8 Member, Fresno State DISCOVERe (Tablet Teaching Initiative) Task Force
 2015—2016 Biology Dept. Tenure-Track Faculty Search Committee: Population Biology
 2014—2015 Biology Dept. Tenure-Track Faculty Search Committee: Population Genetics
 2014 CSM Representative, Academic Information Technology Subcommittee
 2013—2018 Biology Scholarship Committee (Chaired for four years)
 2012—2018 Biology Graduate/Research Committee
 2012—2013 Biology Assessment, Scholarships, Awards and Library Reps. Committee

Professional Reviewing

2024 Manuscript peer review: *BMC Ecol Evol* (3)
 2023 *ad hoc* grant proposal review: National Science Foundation
 2022 Student/Faculty Travel Grant Reviewer, CSUPERB
 2022 *ad hoc* grant proposal review: National Science Foundation
 2021 Promotion and Tenure External Review for University of New Orleans
 2021 Manuscript peer review: *J Heredity* (2)
 2021 *ad hoc* grant proposal review: National Science Foundation
 2021 Curriculum Development Grant Reviewer, CSUPERB
 2020 Manuscript peer review: *Molecular Biology and Evolution*
 2020 Two *ad hoc* grant proposal reviews: National Science Foundation
 2019 Austrian Academy of Sciences *ad hoc* fellowship review
 2019 Leverhulme Trust *ad hoc* grant review
 2019 Responded favorably to CSUPERB request to review travel grants; not seated
 2019 Manuscript peer review, *Evolution*
 2019 Manuscript peer review, *Integrative and Comparative Biology* (& re-review)
 2019 New Investigator Grant Reviewer, CSUPERB
 2019 *ad hoc* Grant proposal review, Human Frontier Science Program
 2018 Manuscript peer review: *Frontiers in Genetics*
 2018 Student/Faculty Travel Grant Reviewer, CSUPERB
 2017 Manuscript peer review: *CourseSource*
 2017 *ad hoc* Grant proposal review: National Science Foundation
 2017 Manuscript peer review: *Biology Letters*
 2017 Manuscript peer review: *J Heredity* (2)
 2017 President's Commission Scholars reviewer, CSUPERB
 2016 Responded favorably to CSUPERB request to review travel grants; not seated
 2016 Manuscript peer review: *J Heredity* (2), *Reviews in Fish Biology and Fisheries*
 2016 Research Development Grant Reviewer, CSUPERB
 2015 *ad hoc* Fellowship reviewer, Sigma Delta Epsilon (Graduate Women in Science)
 2015 New Investigator Grant Reviewer, CSUPERB
 2014 Student/Faculty Travel Grant Reviewer, CSUPERB
 2014 Manuscript peer review: *PLoS Genetics*, *Genetics*, *Mol Biol Evol*

2012 Manuscript peer review: *PLoS One*, *Evolution*, *Mitochondrion*, *Amer. Naturalist*
 2012 *ad hoc* Grant proposal review: National Science Foundation
 2011 Manuscript peer review, *Evolution*
 2010 Manuscript peer review, *Ichthyological Research*
 2010 *ad hoc* Grant proposal review, National Science Foundation

Research Collaborations

2023— Dr. Jeff Olimpo, NSF SEISMiC grant
 2023— Dr. Rosa Alcazar, CURE development at Clovis Community College
 2019—22 CSU Ideas Lab, Food-Health-Ecosystem Trilemma, multi-campus soil microbiome project
 2017 Dr. Julin Maloof, UC Davis
 2017 Dan Santi (Looking Glass Genomics)
 2017 Drs. Arjun Patra and Delwar Hussain: fluorescence microscopy of breast cancer cell lines (California Health Sciences University)
 2016–8 Dr. Laurent Dejean (CSU Fresno, Chemistry): co-advisor for E. Johnson (PSMBt)
 2016–7 Dr. Joy Goto (CSU Fresno, Chemistry): effects of BMAA on *C. elegans* physiology, with Biology student M. Montelongo

Research Seminar Hosting

2022 Dr. Reade Roberts (April 29)
 Dr. Cori Cahoon (April 22)
 Dr. Diego Calderon (April 8)
 Dr. Chris Willett (March 4)
 2021 Dr. Kim Cooper, UCSD (April 23)
 Dr. Kate Laskowski, UC Davis (April 16)
 Dr. Steven Hart, UC Merced (April 9)
 Dr. Michelle Hays, Stanford (March 12)
 Dr. Allie Graham, U. Utah (March 5)
 Dr. Jeff Ross-Ibarra, UC Davis (January 29)
 2014 Dr. Jonathon Stillman, San Francisco State University (November 14)
 Dr. Miriam Barlow, UC Merced (November 7)
 Dr. Julin Maloof, UC Davis (October 24)
 Dr. Elena Keeling, Cal. Poly. San Luis Obispo (October 17)
 Dr. Amber Stokes, CSU Bakersfield (October 3)
 Dr. Lars Tomanek, Cal. Poly. San Luis Obispo (September 26)
 Dr. James Sikes, U. of San Francisco (September 19)
 Dr. Michael Cleary, UC Merced (September 5)
 Dr. Valerie Williamson, UC Davis (August 29)
 Dr. Harmit Malik, Fred Hutchinson Cancer Research Center (March 21)
 2013 Dr. Joel Atallah, UC Davis (October 11)
 Dr. Ron Burton, UC San Diego (March 8)
 Dr. Susannah Tringe, DOE JGI (March 15)
 Dr. Anna Greenwood, Fred Hutchinson Cancer Research Center (April 26)
 Dr. Christopher Kitts, Cal. Poly. San Luis Obispo (3 May)

Other Professional Service

2024	Sabbatical Review Committee for Fresno State Computer Science Dept.
2024	Faculty peer evaluations for J. Slade, Julie Constable
2024	<i>ad hoc</i> Institutional Review Board member for B. Tsukimura
2024	Poster Judge, Bay Area Worm Meeting
2024	Department of Biology <i>ad hoc</i> committee for FSSRA reviews
2024	<i>ad hoc</i> Institutional Review Board member for E. Walter, A. Hansen
2024	Faculty peer evaluations for E. Walter, S. Kendoyan, J. Slade
2024	<i>ad hoc</i> Exceptional Service review committee, Department of Biology
2023	Sponsored Fresno State career events (2) in Genetic Counseling
2023	<i>ad hoc</i> Exceptional Service review committee, Department of Biology
2023—	Faculty mentor for Assistant Professor Dr. Hyunjin Shim
2023	<i>ad hoc</i> Institutional Review Board member for A. Hansen
2023	Faculty peer evaluations for E. Walter, K. Waselkov
2023—	CSU Biotechnology CUREs Leadership Team Member
2023—	Fresno State Faculty Liaison to the Building Bridges to the Professoriate (BB2P) Advisory Committee
2023—	Advisory Board Member for the Fresno State Nutritional Sciences program
2023	MS Biology <i>ad hoc</i> admissions committee member
2023	Peer Evaluation/Review Committee for J. Constable and A. Hovhannisyan
2022	Department of Biology Fall Retreat organizing committee
2022	Department of Biology <i>ad hoc</i> committee for FSSRA reviews and MS Biology application reviews
2022—3	Department of Biology faculty search committee: microbiology
2022—3	<i>C. elegans</i> Community Mentor Match: mentoring Dr. Eillen Tecle, new Assistant Professor at CSU Dominguez Hills
2022	Peer Evaluation/Review Committee for R. Tamayo
2022	Faculty peer evaluations for J. Slade, A. Mujic, S. Kendoyan, A. Hansen, F. Arroyo
2022	Peer Evaluation/Range Elevation Committee for A. Mohan
2022	Fresno State CSM Research Infrastructure Task Force member
2022	Helped develop and lead a bioinformatics and sequence analysis workshop series for Fresno State students in support of the CSM RISE grant
2021	Faculty-sponsored student research award evaluation for the Department of Biology
2021	Workshop panelist “Getting hired at, and navigating, a PUI,” International <i>C. elegans</i> Conference
2021	Mentoring discussion with Computer Science 191T (Dr. Pirouz) students in the NSF Noyce Scholars program
2021	Recorded video statement for Department of Biology commencement
2021	Faculty panel discussion with Fresno State Learning Center tutors on “Storytelling in the Age of Technology”
2021	Faculty peer evaluations for C. Miles, K. Waselkov, A. Mujic, A. Reece
2021	Promotional video for Fresno State Student Ratings of Instruction taskforce
2021	“Applying for Fresno State Scholarships” workshop for CSM Scholarships event
2021	Breakout room host, “Federal Funding Workshop,” CSUPERB Symposium

2021 *ad hoc* Institutional Review Board member for A. Hansen

2020 Faculty peer evaluations: J. Slade, E. Walter (2x), R. Telemeco (2x), A. Mujic

2020 Mentoring discussion with Computer Science 68 students in the NSF Noyce Scholars program

2020 Department of Biology *ad hoc* sabbatical request review committee

2020 Peer Evaluation/Review Committee for Julie Constable

2020 CV preparation workshop for Fresno State Bridges to Doctorate fellows

2020 Two resume/CV preparation workshops for Fresno State SACNAS and other students

2020 “Applying for Fresno State Scholarships” workshop for Fresno State SACNAS and other CSM students

2020 Faculty panelist, CSM BOND (FYE) class: advice on engaging in research

2019—23 Dr. A. Hansen mentoring committee chair

2019—21 Mentoring committee, Dr. E. Walter (Chaired promotion and tenure review)

2019—21 Mentoring committee member, Dr. K. Waselkov

2019 Hosted CSM lab tour for Narain Naidu

2019 Department of Biology Sabbatical/DIP review committee

2019 Faculty peer evaluations for K. Waselkov, A. Hovhannisyan

2019 Responded favorably to CSU Fresno Academic Senate request for self-nominations to serve on the Technology Steering Committee; not seated

2019 Faculty panelist, CSM BOND (FYE) class: advice on engaging in research

2019 Fresno State Open Educational Resources (OER) Taskforce member

2019 Poster session judge, International *C. elegans* Meeting

2019 Summer signatory authority, Department of Biology

2019 Biology Department *ad hoc* committee on Assigned Time for Exceptional Levels of Service to Students, Fresno State (twice)

2019 Resume/CV preparation workshop for Fresno State SACNAS and other students

2019 Faculty peer evaluations for: A. McClelland, A. Reece, K. Gousset, T. Van Laar

2018 *ad hoc* Institutional Review Board member for A. Hansen

2018 Mentor and Presenter at the CSM High Impact Practices (HIP) Bootcamp, including workshop on “Research at a Comprehensive University” and “Work-Life Balance” panelist

2018 Faculty Peer Evaluation for A. Reece

2018 Presented two workshops on “Applying for Fresno State Scholarships” to SACNAS chapter and other CSM students

2018 Faculty panelist to CSM BOND (FYE) student class: advice on engaging in undergraduate research

2017 Hosted CSM Molecular/Genetics/Biochemistry Donor Announcement tour of my research laboratory

2017 Day of Giving Ambassador (raised >\$125 for Fresno State)

2017 Hosted research laboratory tour for Fresno State Board of Governors member Joan Eaton

2017 Attended SACNAS National Conference as Fresno State Chapter Advisor

2017 Resume/CV preparation workshop for Fresno State SACNAS and other students

2017 Host, lunch student discussion table, “Translating Research Experience into a Resumé or C.V.,” CSUPERB Symposium

2016 *ad hoc* Institutional Review Board member for E. Walter
 2016 Peer Evaluation/Review Committee for W. Menefee, A. McClelland
 2016 Applied to be a Genetics Society of America mentor for Promoting Active Learning & Mentoring (PALM)
 2015 Poster Session Judge, 20th International *Caenorhabditis elegans* Meeting
 2015–7 Host, “Graduate school information” topic table, CSUPERB Symposium
 2014 Oral Presentation Judge for the Hamilton Award, Evolution 2014
 2014 California Math and Science Partnership: Next Generation Science Standards Teacher Assessment Question Review
 2013 Judge, American Society of Human Genetics' DNA Day Student Essay Contest
 2013 Host, "How to get a job in academia" post-doc lunch, Int'l *C. elegans* Meeting
 2013 Poster Session Judge, 19th International *Caenorhabditis elegans* Meeting
 2013 Oral Presentation Judge for the Hamilton Award, Evolution 2013
 2008—10 Founding President, UMD College of Chemical & Life Sciences Post-Doc Assn.

Public Outreach

[YouTube Channel](#): 8,002 subscribers · 1,008,886 views

2024 STEM Carnival, CSM, Fresno State Vintage Days
 2023 Guest on KFCF science radio show “Science: A Candle in the Dark”
 2023 Discussion leader for Girl Scout Troop 3046 “College Knowledge” badge
 2021 Led a strawberry DNA extraction activity for Girl Scout Troup 3076
 2021 Guest panelist for UCSD Biological Sciences Student Association meeting, “Diversity in STEM”
 2021 Videography interview and lab research taping for 360° tour website, Fresno State CSM
 2020 Oral presentation to the Osher Lifelong Learning Institute (Fresno State): “GMO: Friend or Foe?”
 2020 Interviewed by Kaile Hunt (KSEE24/CBS47) for a package on virtual instruction at Fresno State <https://www.yourcentralvalley.com/news/fresno-state-anticipating-record-amount-of-first-time-students/>
 2020 Interviewed by *Chronicle* (Becky Supiano) for an article on instruction during COVID-19
 2020 Presentation on the creation and use of videos for instruction to the Fresno Macintosh Users Group
 2020 Developed and led a Girl Scout “Think Like a Citizen Scientist” journey
 2020 ABC30 televised interview on the COVID-19 transition to online instruction
 2019 Videography interview and lab research taping, Fresno State CSM
 2019 Panelist, Bioethics, hosted by CSU Fresno Philosophy Department
 2019 Panelist, “Jurassic Frankenstein: a discussion about maintaining ethical research,” Café Scientifique (Fresno, CA)
 2018 Organized (obtained institutional funding and space for, and advertised) Baba Brinkman performance of the “Rap Guide to Consciousness”
 2018 Presentation “Clips and DISCOVERe” to the Fresno Mac Users Group
 2018 Girl Scout Detective Badge leader (topic: forensic science and DNA)

- 2017 Research feature in Fresno State Campus News
<https://campusnews.fresnostate.edu/november-20-2017/dr-ross-looks-at-gene-therapy-as-cure-for-some-diseases>
- 2017 Feature article on Ross lab research in CSUPERB Annual Report
<https://www2.calstate.edu/impact-of-the-csu/research/csuperb/news-announcements/Pages/AY-16-17-Annual-Report.aspx>
- 2017 Oral presentation to the Osher Lifelong Learning Institute (Fresno State):
 “Embrace your mutations”
- 2017 Interviewed and quoted in Madhusoodanan, “When disease disrupts a degree”
<http://www.sciencemag.org/careers/2017/02/when-disease-disrupts-degree>
- 2016 Interviewed by ABC30 anchor Graciela Moreno for a TV package on genetic testing, aired November 21:
<http://abc30.com/health/dna-testing-offers-window-into-family-ancestry/1618839/>
- 2016 Submitted “Active Learning Day” video to AAC&U, which was featured on the STEM Central website:
<https://stem-central.net/announcements/144/- .WH1VcLGZOu4>
- 2016 Organized (obtained institutional funding and space for, and advertised) Baba Brinkman performance of the “Rap Guide to Climate Chaos”
- 2015 Advising local high school student B.M. on an evolution class project
- 2015 Girl Scout Detective Badge leader (topic: forensic science and DNA)
- 2013 Girl Scout Home Scientist Badge leader (topic: kitchen chemistry)
- 2013 Quoted in *The Collegian* about evolution and genetics of love in “My chemical romance: The science behind love,” by Dalton Runberg (13 February)
- 2010 Judge, Prince George’s County (MD) Kids for Science STEM Fair
- 2007 Seminar: “Sex chromosome degeneration: fish and the future of men.”
 “Science for Life” public seminar series, Fred Hutchinson CRC
- 2007 External Affairs Outreach committee member, Fred Hutchinson CRC
- 2004—2007 Activity Coordinator for “Hutch High”, Fred Hutchinson CRC
- 2006 Seminar: “Love sees no color: how discriminating fish choose mates.”
 Fred Hutchinson CRC Administrative Managers’ Forum
- 2005 Seminar: “Embrace diversity by aiding discrimination: Color-blindness, science and society.” “Science Friday” seminar, Fred Hutchinson CRC
- 2005 University of Washington, Molecular and Cell Biology Student Representative, Society for the Advancement of Chicanos and Native Americans in Science Annual Meeting.
- 2004 University of Washington, Molecular and Cell Biology Student Representative, Annual Biomedical Research Conference for Minority Students.
- 2003 Cancer Info Service Volunteer, “Cancer 101,” Fred Hutchinson CRC
- 2003 University of Washington, Molecular and Cell Biology Student Representative, American Indian Science and Engineering Society Annual Meeting.