JOSEPH A. ROSS, PH.D.
Associate Professor of Biology

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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

2018—	Associate Professor with Tenure Department of Biology College of Science and Mathematics (CSM) California State University, Fresno (CSU Fresno)
2012—2018	Assistant Professor Department of Biology, CSM, CSU Fresno
2008—2012	Post-Doctoral Research Associate / Fellow Eric Haag Laboratory, Department of Biology University of Maryland, College Park (UMCP) "The evolution of genetic incompatibility in *Caenorhabditis briggsae*."
2001—2002	Research Technician Barbara Trask Laboratory Fred Hutchinson Cancer Research Center (Seattle, WA) "Mouse olfactory epithelium cDNA library screen."
2000—2001	Quality Assurance / Quality Control Technician GeneSpan, Inc. (Bothell, WA) – representing LabTemps

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

Peer-reviewed manuscripts: 12 h-index: 10 Citations: 1,704

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

** Note: lab 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.

2018 Haddad R††, Meter B, Ross JA. "The genetic architecture of intra-species hybrid mito-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, Grinwood 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.

Short-Format Publications († undergraduate author with Ross; †† graduate author)

2019 Cazares E† and Ross JA. "Temperature-dependent mitochondrial-nuclear epistasis." *MicroPublication Biology* 10.17912/micropub.biology.000147 PMC7252347

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

Education and Pedagogy Research Publications

2016 **Ross JA**. "Predicting and classifying effects of insertion and deletion mutations on protein coding regions." *CourseSource* **3**. http://coursesource.org/courses/predicting-and-classifying-effects-of-insertion-and-deletion-mutations-on-protein-coding

Other Publications

2007 **Ross JA**. Correspondence. *Nature* **445**:593.

Publications in review († undergraduate author with Ross; †† graduate author)

2021 Ross JA. "Responsible and Ethical Conduct of Research: Instruction on Plagiarism." *CourseSource*

2021 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." *G3*

Oral Scientific Research Presentations (Invited and Submitted)

2021 "Integration of research ethics training in a course-based undergraduate research experience" International *C. elegans* Conference

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)

2020 Haddad R††, Lauri M†, Meter B, Montelongo M†, Montgomery J††, Pavic B†, Rodriguez J†, Takhar S†, Velazco-Cruz L† and **Ross J**. (2020) "RILs, NILs, and cybrids: genetic and organismal effects of mitotype." The Allied Genetics Conference (not presented due to COVID-19)
2020 **Ross J**. (2020) "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 Experience

2018— Associate Professor with Tenure, CSU Fresno
2012—2018 Assistant Professor, CSU Fresno

Total undergraduates instructed: 1,082
Total graduates instructed: 277

	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)		71[†] (4.4)						8[†] (4.8)	
Fall 2016							21[†] (4.7)			
Spr 2017	85[†] (4.1)								24 (4.5)	
Fall 2017	74[†] (4.5)									
Spr 2018									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)

	BIOL 102	BIOL 104	BIOL 105	BIOL 155	BIOL 180/ 280	BIOL 224	BIOL 241	BIOL 248	BIOL 273	BIOL 281
Fall 2018	*sabbatical*									
Spr 2019							15† (4.6)		17† (4.6)	
Fall 2019	60† (4.62)					10† (4.62)				
Spr 2020							10†* (4.83)		25†* (4.8)	
Fall 2020	69†* (4.53)					15†* (4.66)				
Spr 2021	72†* (4.78)				70* (4.62)				25†* (4.79)	
Fall 2021	Pending					Pending			Pending	
Total	**777**	**20**	**142**	**25**	**118**	**30**	**63**	**30**	**136**	**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 subsequent semester
† DISCOVERe (mobile device-based instruction) course
* Virtual instruction

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)

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

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

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

2021 Designed and led workshop: "Designing Course-based Undergraduate Research Experiences (CUREs)" for 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: Presentations & Media

2021 "Research replication in undergraduate lab courses" at Bridging Research and Education With Model ORganisms (BREWMOR) 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—2	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 (12; 8 graduated) *(accomplishments)*

2021—	J. Proctor (*MS Biology pending*)
2021—	L. Huerta Mora (*MS Biology pending*)
2019—	K. Helwick *(MS Biology pending)*
2019—	L. Pereira-Fita *(MS Biology pending)*
2018	B. Meter (*research intern from University of Rennes, France; subsequently Ph.D. program 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. Haddad (*PSM Biotechnology, 2017 CSM Outstanding Graduate Project Award; Molecular Scientist at Biodiagnostic Labs, Inc*)
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 (27) *(accomplishments)*

2021— A. Yousaf
2021— K. Reyes Barajas
2021— J. Terriquez
2019— A. Mallory *(Biology Honors Program)*
2019— 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)*

Student Poster Presentations (presenting; † CSU Fresno undergraduate; †† graduate student)

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 Stanboulian 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 $27,227.32)

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 (49) *(including my own primary advisees)*

2012—	M. Abou-Naoum, A. al Subhi, C. Amaya, S. Aucar, N. Avery, P. Azami, P. Bekal, E. Braschayko, S. Carpenter, Y. Chavan, P. Chawla, J. Cheatham, P. Chhina, R. Elizondo, 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, T. Melkonian, J. Montgomery, A. Nwangwu, C. Olea, B. Ortega, K. Patterson (Duris), L. Pereira-Fita, K. Pham, J. Proctor, B. Ramos, S. Saini, L. Senn, V. Sharma, S. Shetty, M. Smith, R. Tamayo, J. Tyson, K. Vander, A. Wakeman-Hill, W. Whalen

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 (5 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
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*

Pending Research Funding

Active Research Funding

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)
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)
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

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

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 ($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, *Phi Kappa Phi* 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

Professional Society Memberships

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

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 Curriculum Committee
2019—	University Faculty Advisor to CSU STEM-NET affinity group
2019—	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—2018	CSM Curriculum Committee member (bi-weekly meetings)
2016—	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—	Biology Scholarship Committee (Chaired for four years)
2012—2018	Biology Graduate/Research Committee
2012—2013	Biology Assessment, Scholarships, Awards and Library Reps. Committee

Grant and Manuscript Reviewing

2021 Manuscript peer review: *J Heredity*
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

2019— 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

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

2012	Workshop panelist "Getting hired at, and navigating, a PUI," International *C. elegans* 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
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
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—	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 evalutions 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—2010 Founding President, UMD College of Chemical & Life Sciences Post-Doc Assn.

Outreach

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.