Jonathan Clark

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PROFESSIONAL APPOINTMENTS

Visiting Scholar (sabbatical leave) 2016 (Spring)	South Australian Museum, Adelaide Australia *http:// http://www.samuseum.sa.gov.au*
Endowed Scholar 2010 – 2013	Weber State University, College of Science *http://weber.edu/COS/*
Visiting Scientist (sabbatical leave) 2009 (Fall)	Smithsonian Institution, National Museum of Natural History *http://entomology.si.edu/*
Professor 2006 –	Weber State University, Department of Zoology *http://weber.edu/zoology/*
Visiting Scholar (sabbatical leave) 2005 (Fall)	University of Valencia (Spain), Department of Genetics *http://www.uv.es/genetica*
Associate Professor 2001 – 2006	Weber State University, Department of Zoology *http://weber.edu/zoology/*
Director 1998 – 2016	Weber State University, DNA Laboratory *The state of Utah's first genetics teaching laboratory*
Assistant Professor 1998 – 2001	Weber State University, Department of Zoology *http://weber.edu/zoology/*
Scientific Member (elected) 1995 – 1998	University of Arizona, Center for Insect Science *http://cis.arl.arizona.edu*
Senior Research Associate 1994 – 1998	University of Arizona, Dept. of Ecology & Evolutionary Biology *http://eebweb.arizona.edu/*
Postdoctoral Fellow 1992 – 1994	University of Arizona, N.S.F.-Research Training Group in the Analysis of Biological Diversification
Postdoctoral Fellow 1990 – 1992	University of Arizona, Center for Insect Science *http://cis.arl.arizona.edu*
Graduate Research Associate 1985 – 1990	Ohio State University, Department of Molecular Genetics *http://www.molgen.osu.edu/*
Graduate Teaching Associate 1983 – 1985	Ohio State University, Department of Molecular Genetics *http://www.molgen.osu.edu/*

AWARDS & RECOGNITION

Certificate of Recognition, 2018. Sigma Xi, scientific research society (www.sigmaxi.org)
Presented by the National Board of Directors for service at the local (W.S.U.) and national level

Outstanding Mentor, 2017. Office of Academic Affairs, Weber State University
The university's highest recognition for mentoring excellence

Certificate of Recognition, 2010. Sigma Xi, scientific research society (www.sigmaxi.org)
Presented by the National Board of Directors for service at the local (W.S.U.) and national level

Endowed Scholar, 2010–2013. College of Science, Weber State University
The college's highest research award, the recipient is nominated by department chairs.

George and Beth Lowe Innovative Teaching Award, 2008. Office of Academic Affairs, Weber State University
Recognizes extraordinary effort to engage students inside and outside the classroom.

Spencer L. Seager Distinguished Teaching Award, 2007. College of Science, Weber State University
The college's highest teaching award, the recipient is nominated by his or her faculty peers.

Putting Students Through Award, Weber State University, Spring semester 2007 (nominated by student Brian Oney)
The PST Program enables WSU graduates to recognize those who have helped make their graduation possible through their personal, moral or financial support. (https://www.weber.edu/StudentInvolvement/puttingstudentthrough.html)

Putting Students Through Award, Weber State University, Spring semester 2001 (nominated by student Christopher Ostler)

National Science Foundation Postdoctoral Fellowship, 1992 – 1994. Research Training Group in the Analysis of Biological Diversification, University of Arizona.

John D. and Catherine T. MacArthur Foundation Postdoctoral Fellowship, 1990 – 1992. Center for Insect Science, University of Arizona.

EDUCATION

Ph.D. – Molecular Genetics
Ohio State University, Columbus, OH

Dissertation: *A Molecular Phylogenetic Analysis of the Intracellular Bacteria Rickettsiae.*
(Advisor: Paul A. Fuerst)

B.S. – Biology
Bowling Green State University, Bowling Green, OH

SIGNIFICANT PROFESSIONAL SERVICE

National & International Service

Member Board of Directors, International Society for Salt Lake Research
5/18 – 5/21 *(http://isslr.org/about/officers-and-board-2/)*

- One of 11 members of the international Board and the only member from the U.S.
- Developed programs to promote the study, management and conservation of saline lakes
- Organized triennial international research conference, including location, scientific program, and logistics

Director Northwest Region, *Sigma Xi* Scientific Research Society *(www.sigmaxi.org)*
4/15 – 5/18

- Directed recruitment and chapter activities of 32 regional chapters in North America
- Reviewed chapter annual reports
- Organized regional group delegate meetings for the 2015, 2016, 2017 annual meetings

Member Board of Directors, Sigma Xi Scientific Research Society
4/15 – 5/18 *(www.sigmaxi.org/about/leadership/board.shtml)*

- One of 15 members of the international Board
- Prioritized programs and initiatives for the 60,000-member international organization
- Reviewed and approved $5,037,572 (FY14) annual budget
- Made strategic plans for maintaining and using $12,980,699 (FY14) endowment

Director Comprehensive Colleges & Universities Constituency Group,
11/08 – 12/10 *Sigma Xi* Scientific Research Society *(www.sigmaxi.org)*

- Directed recruitment and chapter activities of 130 constituency chapters in North America
- Reviewed 130 chapter annual reports
- Organized constituency group delegate meetings for the 2009 and 2010 annual meetings

Member Board of Directors, Sigma Xi Scientific Research Society
11/08 – 12/10 *(www.sigmaxi.org/about/leadership/board.shtml)*

- One of 15 members of the international Board
- Prioritized programs and initiatives for the 60,000-member international organization
- Reviewed and approved $5,448,276 (FY09) annual budget
- Made strategic plans for maintaining and using $8,796,883 (FY09) endowment
- Attended three Board of Directors meetings and participated in eight Board teleconferences

Associate Director Comprehensive Colleges & Universities Constituency Group,
12/07 – 11/08 *Sigma Xi* Scientific Research Society *(www.sigmaxi.org)*

- Reviewed 128 chapter annual reports
- Assisted Director in organizing 2008 annual meeting activities

Each of the above positions was via a national or international election.

SIGNIFICANT PROFESSIONAL SERVICE (continued)

University Service

Chair Department of Zoology, neurosciences faculty search committee
9/17 – 3/18

- Wrote position justification and job description
- Contributed to position request document (7 pages)
- Submitted position description to online job postings
- Reviewed 35 applications for this tenure-track position
- Conducted phone interviews with nine candidates
- Organized campus visits for four candidates
- Completed successful hire of Dr. Elizabeth Sandquist

Director W.S.U., College of Science DNA Laboratory
9/99 – 5/16

- Coordinated faculty and student research activities in this multi-department facility
- Obtained $151,740 in funding for research equipment, including imaging and computing
- Supervised student research projects
- Regularly hosted high school and junior high student groups and designed activities to elucidate the process of science

Member
9/14 – 5/15 W.S.U., Personnel Relations Committee
(http://www.weber.edu/ppm/Policies/3-31_StaffEmpGrievances.html)

- Reviewed cases of grievances filed by non-faculty employees

Chair W.S.U., College of Science Tenure Review Committee
12/12 – 5/15 *(http://www.weber.edu/facultyandstaffresources/Post_Tenure.html)*

- Developed a revised the tenure document used by the College of Science
- Served as liaison between the Dean and college faculty in deliberations regarding tenure decision policies
- Prepared, submitted and presented the documents for review by the Academic, Promotion, Academic Freedom, and Tenure Committee
- Prepared and submitted documents to the Faculty Senate
- For the first time ever, established the criteria and procedures by which faculty in the college are evaluated post-tenure
- Conducted "town-hall" meeting with college faculty to discuss implications of post-tenure review
- Prepared, submitted and presented the documents for review by the Academic, Promotion, Academic Freedom, and Tenure Committee (approved 4/12/2013)
- Prepared and submitted documents to the Faculty Senate (approved 4/19/2013)

Member W.S.U., Faculty Board of Review
9/11 – 6/12 *(http://www.weber.edu/ppm/Policies/1-13_FacSenBylaws.html)*

- Reviewed cases of academic due process with regard to granting of tenure/promotion, salary, work conditions and other pertinent matters of faculty concern

Chair Department of Zoology, genetics faculty search committee
9/07 – 4/08

- Reviewed 29 applications for this tenure-track position
- Submitted position description to online job postings
- Conducted phone interviews with five candidates
- Organized campus visits for three candidates
- Completed successful hire of Dr. Jon Marshall

SIGNIFICANT PROFESSIONAL SERVICE (continued)

University Service

Chair W.S.U., College of Science Ranking & Tenure Committee
10/06 – 5/08

- Evaluated a total of 17 candidates for promotion or tenure
- Reviewed the performance evaluation of the College Dean and worked with the Provost to formulate his final report

Chair W.S.U., Office of Academic Affairs, Science General Education
9/02 – 9/07 Assessment Task Force *(http://www.weber.edu/AcademicAffairs/natural_sciences.html)*

- For the first time ever, wrote a Mission Statement that encompasses both the life sciences and physical sciences
- Identified Learning Outcomes for each general education course in the sciences and articulated outcomes with the curriculum grid
- Established and implemented an assessment plan across four colleges
- Administered and compiled the first ever results of science general education assessment
- Completed a self-study of science general education for 2004 Northwest Accreditation review
- Prepared formal Science Gen Ed proposal, which subsequently received unanimous approval from the Faculty Senate

President W.S.U. chapter, Sigma Xi Scientific Research Society
9/01 – 9/08

- Successfully completed and submitted seven annual reports, which are required for maintaining the chapter in good standing
- Recruited and nominated 38 students for membership in the WSU chapter of *Sigma Xi*
- Organized 22 on-campus seminars, including local, national, and international speakers
- Served as official chapter delegate to the 2002, 2004, 2007 and 2008 national meetings of *Sigma Xi*
- Served as official teller at the 2004 annual meeting of *Sigma Xi*

Chair Department of Zoology, cell biology faculty search committee
9/02 – 4/03

- Submitted position description to online job postings
- Reviewed 31 applications for this tenure-track position
- Conducted phone interviews with six candidates
- Organized campus visits for three candidates
- Completed successful hire of Dr. Barb Trask

Member W.S.U., Office of Academic Affairs, Institutional Review
9/00 – 12/01 Board for Human Subjects *(http://www.weber.edu/IRB)*

- Reviewed 112 proposals from W.S.U. faculty and students for compliance with national and institutional IRB standards

Chair Department of Zoology, Outcomes Assessment Committee
9/00 – 12/03

- Wrote department mission statement and identified learning outcomes
- Articulated learning objectives with the zoology curriculum
- Established and implemented the department's assessment plan
- Reported assessment results to the university's assessment committee

Chair W.S.U., College of Science Curriculum Committee
9/99 – 9/05

- Completed the successful review of 11 program proposals and 32 course proposals
- Streamlined the submission process to include electronic submission of all documents to the Committee

PEER-REVIEWED PUBLICATIONS (mentored students underlined)

Truong A, M Sondossi, and **JB Clark**. 2017. Genetic identification of *Wolbachia* from Great Salt Lake brine flies. *Symbiosis* 72:95-102.

Clark J and S Nguyen. 2014. Genetic analysis of Invertebrates from Great Salt Lake. Acta Geologica Sinica 88:65-68.

Llorens JV, **JB Clark**, I Martínez-Garay, S Soriano, R de Frutos and MJ Martínez-Sebastián. 2008. *Gypsy* endogenous retrovirus maintains potential infectivity in several species of Drosophilids. *BMC Evolutionary Biology* 8:302-310. *[Sabbatical research]*

JS Silva, EL Loreto, and **JB Clark**. 2004. Factors that affect the horizontal transfer of transposable elements. *Current Issues Mol. Biol.* 6:57-72.

> *This paper examines the molecular and host constraints on horizontal gene transfer, and provides a detailed treatment of alternative hypotheses, such as ancestral polymorphism. It also considers the ecological and temporal requirements for horizontal transfer.*

Clark JB, JS Silva, and MG Kidwell. 2002. Evidence for horizontal transfer of *P* transposable elements. In: *Horizontal Gene Transfer*, second edition. M Syvanen and C Kado, eds. pp. 161-171. Academic Press, London.

Colton L and **JB Clark**. 2001. Comparison of DNA isolation methods and storage conditions for successful amplification of *Drosophila* genes using PCR. *Dros. Info. Service* 84:180-182.

García-Planells J, N Paricio, **JB Clark**, R de Frutos and MG Kidwell. 1998. Molecular evolution of *P* transposable elements in the genus *Drosophila*. II. The *obscura* species group. *J. Molec. Evol.* 47:282-291.

Clark JB, P Kim and MG Kidwell. 1998. Molecular evolution of *P* transposable elements in the genus *Drosophila*. III. The *melanogaster* species group. *Mol. Biol. Evol.* 15:746-755.

Clark JB and MG Kidwell. 1998. Evidence for horizontal transfer of the *P* transposable element between *Drosophila* species. In: *Horizontal Transfer*. M. Syvanen and C. Kado, eds. pp. 255-267. Chapman & Hall, London.

O'Grady PM, **JB Clark** and MG Kidwell. 1998. Phylogeny of the *Drosophila saltans* species group based on combined analysis of nuclear and mitochondrial DNA sequences. *Mol. Biol. Evol.* 15:656-664.

Clark, JB and MG Kidwell. 1997. A phylogenetic perspective on *P* transposable element evolution in *Drosophila*. *Proc. Natl. Acad. Sci. USA.* 94:11428-11433.

> *This paper remains one of the most comprehensive phylogenetic investigations of horizontal gene transfer and examines such events in the context of over 60 million years of Drosophila evolution.*

Lee S-H and **JB Clark**. 1997. High-yield method for isolation of lambda DNA. *Biotechs.* 23:598-600.

Clark JB and MG Kidwell. 1996. Molecular biology and evolution of *P* transposable elements. *Evol. Biol.* 9:1-36.

PUBLICATIONS (mentored students underlined)

Clark JB, TK Altheide, MJ Schlosser and MG Kidwell. 1995. Molecular evolution of *P* transposable elements in the genus *Drosophila*. I. The *saltans* and *willistoni* species groups. *Mol. Biol. Evol.* 12:902-913.

Clark JB 1995. Evolution and molecular phylogeny of *P* transposable elements in the genus *Drosophila*. *Tsukuba (Japan) Insect Sci. Pubs.* 8:13-22. *[not peer reviewed]*

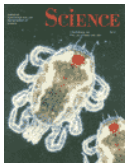
Clark JB, WP Maddison and MG Kidwell. 1994. Phylogenetic analysis supports horizontal transfer of *P* transposable elements. *Mol. Biol. Evol.* 11:40-50.

> *This was the first paper that explicitly used phylogenetics to examine horizontal gene transfer and alternative hypotheses. It is still widely cited and is a staple of textbook considerations of horizontal transfer (e.g.,* Molecular Evolution*, Li, 2007, pp. 374-377).*

Stothard DR, **JB Clark** and PA Fuerst. 1994. The ancestral divergence of *Rickettsia bellii* from the spotted fever and typhus groups of *Rickettsia*, and the antiquity of the genus *Rickettsia*. *Inter. J. Syst. Bacteriol.* 44:798-804.

> *This work established, for the first time, a phylogenetic structure for the remarkable genus,* Rickettsia*. These endosymbiotic bacteria have undergone a severe reduction in genome size as they adapted to an obligate intracellular existence and, are now an important focus for studying the evolution of genome complexity.*

Houck MA, **JB Clark**, KR Peterson and MG Kidwell. 1991. Possible horizontal transfer of *Drosophila* genes by the mite *Proctolaelaps regalis*. *Science* 253:1125-1129.



This landmark paper outlined laboratory techniques for examining horizontal gene transfer, moving the field from the theoretical to the experimental. It remains the most comprehensive investigation of the mechanism of horizontal gene transfer.

PEER-REVIEWED PROFESSIONAL PRESENTATIONS (mentored students underlined)

Wilko T and **J Clark**. 2019. DNA barcoding of economically important insects. SIGMA XI ANNUAL MEETING AND INTERNATIONAL RESEARCH CONFERENCE, Madison, WI, Nov. 14-17.

Haney, S. and **J Clark**. 2019. DNA barcoding of invertebrates from the Great Salt Lake ecosystem. ANNUAL MEETING OF AAAS-PACIFIC DIVISION, Ashland, OR, June 18-21.

Clark J. 2018. Genomic diversity and comparative phylogenetics of the *HeT-A* transposable element in six species of *Drosophila*. THIRD GLOBAL INVERTEBRATE GENOMICS ALLIANCE CONFERENCE, Curaçao, Oct. 19-21.

Clark J, L Mantel, P Stein, and S Saha. 2018. The practice, communication and ethics of Interdisciplinary research. (A multidisciplinary symposium of four speakers). ANNUAL MEETING OF AAAS-PACIFIC DIVISION, Pomona, CA, June 12-15.

O Bedolla and **J Clark**. 2017. DNA Barcoding of Great Salt Lake invertebrates. 7TH INTERNATIONAL BARCODE OF LIFE CONFERENCE, Kruger National Park, South Africa, Nov. 20-24.

Clark J, O Bedolla and S Haney. 2017. Genetic studies of invertebrate diversity in the Great Salt Lake ecosystem. 13TH INTERNATIONAL CONFERENCE ON SALT LAKE RESEARCH, Ulan-Ude, Russia, August 21-25.

Haney S and J **Clark**. 2017. Invertebrate diversity in Great Salt Lake revealed by DNA barcoding. ANNUAL MEETING OF AAAS-PACIFIC DIVISION, Waimea, HI, June 19-23.

Bedolla O and **JB Clark**. 2016. Genetic exploration of invertebrate diversity in Great Salt Lake. SIGMA XI ANNUAL MEETING AND INTERNATIONAL RESEARCH CONFERENCE, Atlanta, GA, Nov. 11-13.

Nguyen S and **JB Clark**. 2015. DNA barcoding of Great Salt Lake invertebrates. SIGMA XI ANNUAL MEETING AND INTERNATIONAL RESEARCH CONFERENCE, Kansas City, MO, Oct. 22-25.

Hunziker K, S Redon, N Berthelemy and **J Clark**. 2015. Genetic characterization of parasites from Great Salt Lake brine shrimp. ANNUAL MEETING OF AAAS-PACIFIC DIVISION, San Francisco, CA, June 14-17.

Hunziker K, N Berthelemey and **J Clark**. 2015. Genetic identification of parasites associated with Great Salt Lake brine shrimp. ANNUAL UNDERGRADUATE RESEARCH SYMPOSIUM, Weber State University, March 30.

Yearsley S, M Sondosssi and **J Clark**. 2015. Assessing Microbial Diversity of Great Salt Lake Microbes Using DNA Sequence Comparisons. ANNUAL UNDERGRADUATE RESEARCH SYMPOSIUM, Weber State University, March 30.

Clark JB. 2014. DNA barcoding of Great Salt Lake invertebrates. GENETICS INTERDISCIPLINARY SEMINAR SERIES, University of Arizona, Tucson, AZ, Nov. 15. [invited speaker]

Nguyen S and **JB Clark**. 2014. Genetic analysis of invertebrates from Great Salt Lake, Utah. 12TH INTERNATIONAL CONFERENCE ON SALT LAKE RESEARCH, Beijing, China, July 14-18.

Nguyen S and J Clark. 2014. Genetic characterization of Great Salt Lake Invertebrates. ANNUAL UNDERGRADUATE RESEARCH SYMPOSIUM, Weber State University, March 31.

PEER-REVIEWED PROFESSIONAL PRESENTATIONS (mentored students underlined)

Hill C, M Sondossi, and J Clark. 2014. Metagenomic characterization of Great Salt Lake microbes. ANNUAL UNDERGRADUATE RESEARCH SYMPOSIUM, Weber State University, March 31.

JB Clark, K Minear and S Nguyen. 2014. Using DNA Barcoding to Identify Great Salt Lake Invertebrates. GREAT SALT LAKE ISSUES FORUM, Salt Lake City, UT, May 7-9.

Nguyen S and **JB Clark**. 2013. DNA barcoding of Great Salt Lake invertebrates. FIFTH INTERNATIONAL BARCODE OF LIFE CONFERENCE, Kunming, China, Oct. 27-31.

Truong A, M Sondossi and **JB Clark**. 2012. Comparative genetics of the *Wolbachia* endosymbiont associated with Great Salt Lake brine flies. SEVENTH INTERNATIONAL *WOLBACHIA* CONFERENCE, St. Pierre d'Oléron, France, June 7-12.

Clark JB and Cox, H. 2012. Expanded phylogenetic analysis of the telomere-associated transposable element, *HeT-A,* in *Drosophila.* SOCIETY FOR MOLECULAR BIOLOGY AND EVOLUTION ANNUAL MEETING, Dublin, Ireland, July 23-26.

Cox H and **JB Clark**. 2012. Comparative molecular genetics of the unusual chromosome telomeres of *Drososphila*. NATIONAL CONFERENCE ON UNDERGRADUATE RESEARCH, Ogden, UT, March 29-31.

Truong A, M Sondossi and **JB Clark**. 2012. Comparative genetics of the *Wolbachia* endosymbiont associated with Great Salt Lake brine flies. NATIONAL CONFERENCE ON UNDERGRADUATE RESEARCH, Ogden, UT, March 29-31.

Cox H and **JB Clark**. 2011. Phylogenetic analysis of the unusual chromosome telomeres in *Drosophila*, a model genetic organism. SIGMA XI ANNUAL MEETING AND INTERNATIONAL RESEARCH CONFERENCE, Raleigh, NC, Nov. 10-13.

Cox H and **JB Clark**. 2011. Comparative genetic analysis of the telomere-associated transposable element, *HeT-A*, in *Drosophila*. SIXTH INTERNATIONAL SYMPOSIUM ON MOLECULAR INSECT SCIENCE, Amsterdam, Netherlands, Oct. 2-5.

Truong A and **JB Clark**. 2011. Genetic analysis of the *Wolbachia* endosymbiont associated with Great Salt Lake brine flies. SOCIETY FOR MOLECULAR BIOLOGY AND EVOLUTION ANNUAL MEETING, Kyoto, Japan, July 26-30.

> *Amanda was one of only ten students worldwide chosen to participate in the Undergraduate Research Mentoring Program sponsored by SMBE.*

Clark JB and BJ Oney. 2011. Molecular population genetic analysis of the brine fly, *Ephydra gracilis*, from Great Salt Lake. 11TH INTERNATIONAL CONFERENCE ON SALT LAKE RESEARCH, Córdoba, Argentina, May 9-14.

Sondossi M, A Truong, and **JB Clark**. 2011. Genetic characterization of the bacterial endosymbiont, *Wolbachia*, in Shore Flies from Great Salt Lake. 11TH INTERNATIONAL CONFERENCE ON SALT LAKE RESEARCH, Córdoba, Argentina, May 9-14.

PEER-REVIEWED PROFESSIONAL PRESENTATIONS (mentored students underlined)

Truong A, M. Sondossi and **JB Clark**. 2010. Characterization of *Wolbachia* in *Cirrula hians* from Great Salt Lake. SIGMA XI ANNUAL MEETING AND INTERNATIONAL RESEARCH CONFERENCE, Raleigh, NC, Nov. 11-14.

Truong A, M Sondossi and **JB Clark**. 2010. Genetic analysis of the *Wolbachia* endosymbiont associated with Great Salt Lake brine flies. NATIONAL CONFERENCE ON UNDERGRADUATE RESEARCH, Ithaca College, March 31-April 2.

Clark JB 2010. Molecular phylogeny of the telomere-associated transposable element, *HeT-A*, in *Drosophila*. SOCIETY FOR MOLECULAR BIOLOGY AND EVOLUTION ANNUAL MEETING, Lyon, France, July 4-8.

Minear KJ and **JB Clark**. 2010. Use of nuclear and mitochondrial genes to distinguish Great Salt Lake shore flies. NATIONAL CONFERENCE ON UNDERGRADUATE RESEARCH, University of Montana, April 15-17.

Minear KJ and **JB Clark**. 2010. DNA barcoding reveals the diversity of shore flies from Great Salt Lake. ANNUAL UNDERGRADUATE RESEARCH SYMPOSIUM, Weber State University, March 29.

Cottrell C, M Sondossi, and **JB Clark**. 2009. Metagenomic identification of bacteria associated with Great Salt Lake brine flies. ANNUAL UNDERGRADUATE RESEARCH SYMPOSIUM, Weber State University, March 23.

Clark JB and KJ Minear. 2009. DNA barcoding of shore flies from Great Salt Lake. THIRD INTERNATIONAL BARCODING OF LIFE CONFERENCE, Mexico City, Nov. 9-13.

Minear KJ and **JB Clark**. 2009. DNA barcoding reveals the diversity of shore flies from Great Salt Lake. SIGMA XI ANNUAL MEETING AND INTERNATIONAL RESEARCH CONFERENCE, Woodlands, TX, Nov. 12-15.

> *Krystle was one of only two nationwide medal winners for her presentation in the area of ecology and evolutionary biology.*

Cottrell C, M Sondoss, and **JB Clark**. 2009. Metagenomic identification of bacteria associated with Great Salt Lake brine flies. SIGMA XI ANNUAL MEETING AND INTERNATIONAL RESEARCH CONFERENCE, Woodlands, TX, Nov. 12-15.

Okazaki RK, NJ Berthelemy, MA Gillins, BJ Duerden, NR Record, BC Trask, and **JB Clark**. 2009. Molecular study on induction of stress proteins in Nermerteans. 7TH INTERNATIONAL CONFERENCE ON NEMERTEAN BIOLOGY, Santa Barbara, CA, June 29-July 3.

Neilsen NJ and **JB Clark**. 2009. An expanded phylogenetic view of the telomere-associated transposable element, *HeT-A*, in *Drosophila*. SOCIETY OF SYSTEMATIC BIOLOGISTS ANNUAL MEETING, Moscow, ID June 12-16.

Cotrell C, M Sondossi and **JB Clark**. 2009. Preliminary metagenomic analysis of bacteria associated with Great Salt Lake brine flies. ANNUAL UNDERGRADUATE RESEARCH SYMPOSIUM, Weber State University, March 23.

Neilsen N and **JB Clark**. 2009. Phylogenetic analysis of the telomere-associated gene, *HeT-A*, in *Drosophila*. ANNUAL UNDERGRADUATE RESEARCH SYMPOSIUM, Weber State University, March 23, 2009.

Clark JB 2007. Extreme sequence divergence of the telomere-associated transposable element, *HeT-A*, in *Drosophila*. SOCIETY FOR MOLECULAR BIOLOGY AND EVOLUTION ANNUAL MEETING, Halifax, NS, June 24-28.

PEER-REVIEWED PROFESSIONAL PRESENTATIONS (mentored students underlined)

Oney B and **JB Clark**. 2007. Genetic variation in natural populations of the Great Salt Lake Brine Fly, *E. cinerea*. ANNUAL UNDERGRADUATE RESEARCH SYMPOSIUM, Weber State University, March 26.

Oney B and **J Clark**. 2007. Genetic variation in natural populations of the Great Salt Lake Brine Fly, *E. cinerea*. NATIONAL CONFERENCE ON UNDERGRADUATE RESEARCH, Dominican University, CA, April 12-14.

Suurmeyer E and **JB Clark**. 2005. Genetic studies of brine fly diversification in the Great Salt Lake. SIGMA XI, ANNUAL MEETING AND STUDENT RESEARCH CONFERENCE, Seattle, WA, November 3-6.

Ellen was the sole medal winner nationwide for her presentation in the area of ecology and evolutionary biology.

Lindley K, J Bambrick, and **JB Clark**. 2005. Molecular phylogeny of the telomere-associated transposable element, *HeT-A*, in *Drosophila*. SOCIETY OF SYSTEMATIC BIOLOGISTS ANNUAL MEETING, Fairbanks, AK, June 11-14.

Gabrielsen EJ and **JB Clark**. 2005. Initial Genetic Characterization of Brine Flies of the Great Salt Lake. COUNCIL ON UNDERGRADUATE RESEARCH, POSTERS ON THE HILL, Washington, DC. April 19.

Eric was one of only 60 students chosen nationwide to present his research to members of Congress.

Gabrielsen EJ and **JB Clark**. 2005. Genetic Characterization of Great Salt Lake Brine Flies. SECOND ANNUAL UNDERGRADUATE RESEARCH SYMPOSIUM, Weber State University, March 28.

Gabrielsen EJ and **JB Clark**. 2004. Initial Genetic Characterization of Brine Flies of the Great Salt Lake. SIGMA XI ANNUAL MEETING AND STUDENT RESEARCH CONFERENCE, Montreal, Canada, November 11-14.

Saxton EA, JN Sonstegard, CK Bauer, **JB Clark**, and M Sondossi. 2004. Microbial isolates from the Great Salt Lake: Initial genetic characterization and range of salt tolerance. UTAH ACADEMY OF SCIENCES ANNUAL MEETING, Cedar City, UT, April 16.

Anderson A and **JB Clark**. 2004. Distinguishing closely-related species of *Drosophila* using DNA Fingerprinting. ANNUAL UNDERGRADUATE RESEARCH SYMPOSIUM, Weber State University, March 29.

Bauer C, JN Sonstegard, EA Saxton, **JB Clark**, and M Sondossi. 2004. Genetic characterization of microbial diversity in the Great Salt Lake. ANNUAL UNDERGRADUATE RESEARCH SYMPOSIUM, Weber State University, March 29.

Nebeker M, **JB Clark**, and SI Zeveloff. 2004. Divergence within the raccoon family, Procyonidae, using mitochondrial DNA sequences. ANNUAL UNDERGRADUATE RESEARCH SYMPOSIUM, Weber State University, March 29.

Sonstegard JN, CK Bauer, EA Saxton, **JB Clark**, and M Sondossi. 2004. Isolation of microbial pure cultures from the Great Salt Lake. ANNUAL UNDERGRADUATE RESEARCH SYMPOSIUM, Weber State University, March 29.

Anderson A and **JB Clark**. 2003. Distinguishing closely-related species of *Drosophila* using DNA Fingerprinting. ANNUAL UNDERGRADUATE RESEARCH SYMPOSIUM, Weber State University, Sept. 26.

PEER-REVIEWED PROFESSIONAL PRESENTATIONS (mentored students underlined)

Nebeker M, **JB Clark**, and SI Zeveloff. 2003. Divergence within the raccoon family, Procyonidae, using mitochondrial DNA sequences. ANNUAL UNDERGRADUATE RESEARCH SYMPOSIUM, Weber State University, Sept. 26.

McKinley K, **JB Clark**, and JF Cavitt. 2003. Seasonal variation of offspring sex ratio in starlings. NATIONAL CONFERENCE ON UNDERGRADUATE RESEARCH, Salt Lake City, UT, March 13-15.

McKinley K, JF Cavitt, and **JB Clark**. 2002. Seasonal variation of offspring sex ratio in starlings. SIGMA XI, ANNUAL MEETING AND STUDENT RESEARCH CONFERENCE Galveston, TX, November 15-17.

Bentley MJ, JW Wilson, and **JB Clark**. 2002. Molecular phylogeny of the *HeT-A* transposable element in the *melanogaster* species subgroup of *Drosophila*. SOCIETY FOR MOLECULAR BIOLOGY AND EVOLUTION ANNUAL MEETING, Sorrento, Italy, June 13-16.

Clark JB 1996. Phylogenetic analysis provides insights into transposable element evolution. PHYLOGENY OF LIFE AND THE ACCOMPLISHMENTS OF PHYLOGENETIC BIOLOGY SYMPOSIUM, Tucson, AZ, Oct. 10-13

Clark JB and MG Kidwell. 1996. Evidence for horizontal transfer of the *P* transposable element between *Drosophila* species. FALLEN LEAF LAKE CONFERENCE ON HORIZONTAL TRANSFER, Lake Tahoe, CA, Sept. 12-15.

Clark JB and MG Kidwell. 1995. Molecular phylogeny of *P* transposable elements in *Drosophila*. SOCIETY FOR MOLECULAR BIOLOGY AND EVOLUTION ANNUAL MEETING, Tucson, AZ, June 8-11.

Clark JB. 1995. Evolution and molecular phylogeny of *P* transposable elements in the genus *Drosophila*. SYMPOSIUM ON MOLECULAR INSECT SCIENCE, ANNUAL MEETING OF THE TSUKUBA INSTITUTE, Tsukuba, Japan, September 1.

Kidwell MG and **JB Clark**. 1995. Horizontal transfer and the evolution of *P* elements in *Drosophila*. SYMPOSIUM ON *DROSOPHILA* EVOLUTION, Kyoto, Japan, August 28-30.

Clark JB and MG Kidwell. 1995. Molecular evolution of *P* transposable elements in *Drosophila*. SOCIETY FOR MOLECULAR BIOLOGY AND EVOLUTION, ANNUAL MEETING, Hyama, Japan, Aug. 21-25.

Clark JB and MG Kidwell. 1995. Evolutionary significance of horizontal transfer of transposable elements among species. Symposium on the evolution of transposable elements, AAAS ANNUAL MEETING, Atlanta, GA. Feb. 16-19.

Clark JB, WP Maddison, TK Altheide, and MG Kidwell. 1993. Molecular phylogenetic analysis of *P* transposable elements in *Drosophila*. INTERNATIONAL CONGRESS OF GENETICS. Birmingham, UK, Aug. 15-21.

PEER-REVIEWED PROFESSIONAL PRESENTATIONS (mentored students underlined)

Clark JB, W Maddison, TK Altheide, and M. Kidwell. 1993. Molecular phylogenetic analysis of *P* transposable elements in *Drosophila*. SECOND INTERNATIONAL SYMPOSIUM ON MOLECULAR INSECT SCIENCE. Flagstaff, AZ, July 17-22.

Clark JB, CI Pretzman and PA Fuerst. 1988. The 16S rRNA gene sequence of *Rickettsia bellii* and the evolution of the Rickettsiae. SEVENTH NATIONAL MEETING, AMERICAN SOCIETY FOR RICKETTSIOLOGY AND RICKETTSIAL DISEASES. Santa Fe, NM, Apr. 14-17.

Clark JB and PA Fuerst. 1987. Evolutionary relationships of rickettsiae revealed by rRNA sequence comparisons. GORDON CONFERENCE ON POPULATION BIOLOGY AND EVOLUTION OF MICROBES AND THEIR ACCESSORY ELEMENTS. Plymouth, NH, Aug. 17-21.

Total Research Presentations

W.S.U. 63
Career 70
Number of countries 14

INVITED PROFESSIONAL PRESENTATIONS

Clark JB. 2016. Great Salt Lake: Genetic Studies of Biodiversity. South Australian Museum, Adelaide. (co-sponsored by the University of Adelaide). March 23.

Clark JB. 2014. DNA Barcoding Reveals the Diversity of Great Salt Lake Invertebrates. Graduate Interdisciplinary Program in Genetics, University of Arizona, Tucson. Nov. 15

COMPETITIVE RESEARCH GRANTS

2022
Weber State University, Academic Resources and Computing Committee. Digital Imaging System for Cell Biology and Genetics $27,729. (**J Clark**, E Sandquist, and B Trask, Project Directors)

2020
Weber State University, Academic Resources and Computing Committee. Digital Imaging System for Cell Biology and Genetics $3,300. (**J Clark**, and E Sandquist, Project Directors)

2019
Weber State University, Hemingway Faculty Vitality grant. Metagenomics of Great Salt Lake Invertebrates. $3035. (**J Clark**, Project Director)

2019
Weber State University, Office of Undergraduate Research. Travel to the Annual Meeting of Sigma Xi. $1350. (**J Clark**, Project Director)

2017
Weber State University, Office of Undergraduate Research. Travel to the Annual Meeting of AAAS. $1909. (**J Clark**, Project Director)

2017
Weber State University, Research, Scholarship and Professional Growth Committee. Travel to the 7th International Barcoding of Life conference. $1000. (**J Clark**, Project Director)

2015
Weber State University, Academic Resources and Computing Committee. Molecular imaging system for teaching and research. $10,890. (**J Clark**, and M Skopec, Project Directors)

2015
Weber State University, Hemingway Vitality Award. Presentation of a Paper at the 96th Annual Meeting of AAAS. $1412 (**J Clark**, Project Director)

2014
Weber State University, Hemingway Vitality Award. Travel to the 12th International Conference on Salt Lake Research. $1466. (**J Clark**, Project Director)

2014
Weber State University, Hemingway Collaborative Research Award. Genetic analysis of *Artemia* parasites. $2800. (N Berthelemy, **J Clark**, and J Fritzler, Project Directors)

2012
Weber State University, Hemingway Collaborative Research Award. Assessing Great Salt Lake microbial diversity. $6025. (**J Clark** and M Sondossi, Project Directors)

2011
Dee Family Technology Grant. Computing and imaging systems for genetic analysis. $2346. (**J Clark**, Project Director)

COMPETITIVE RESEARCH GRANTS (continued)

2011
Weber State University, Research, Scholarship and Professional Growth Committee. Travel to the 11th International Conference on Salt Lake Research. $2415. (**J Clark**, Project Director)

2010
Weber State University, Research, Scholarship and Professional Growth Committee. Analysis of chromosome telomeres in the model organism, *Drosophila*. $2238. (**J Clark**, Project Director)

2009
Weber State University, Research, Scholarship and Professional Growth Committee. Travel to the Third International Barcoding of Life conference. $1400. (**J Clark**, Project Director)

2009
Dee Family Technology Grant. DNA sequence editing and phylogenetic analysis station. $5958. (J Marshall and **J Clark**, Project Directors)

2009
Weber State University, Research, Scholarship and Professional Growth Committee. Travel to the annual meeting of the Society of Systematic Biologists. $1378. (**J Clark**, Project Director)

2008
Weber State University, Office of the Provost. Analysis of gene expression using RealTime PCR. $33,500. (**J Clark**, B Trask and M Skopec)

2008
Weber State University, Hemingway Collaborative Research Award. Metagenomic analysis of Great Salt Lake brine flies. $6100. (**J Clark** and M Sondossi, Project Directors)

2007
Weber State University, Research, Scholarship and Professional Growth Committee. Travel to the annual meeting of the Society for Molecular Biology and Evolution. $1595. (**J Clark**, Project Director)

2006
Weber State University, Hemingway Collaborative Research Award. Isolation and genetic characterization of microorganisms with the capability to metabolize selected aromatic compounds. $5177. (M Sondossi and **J Clark**, Project Directors)

2005
Weber State University, Research, Scholarship and Professional Growth Committee. Travel to the annual meeting of the Society of Systematic Biologists. $1480. (**J Clark**, Project Director)

2002
Weber State University, Research, Scholarship and Professional Growth Committee. Localization of genes associated with chromosome ends in *Drosophila*. $2645. (**J Clark**, Project Director)

2001
Weber State University, Academic Resources and Computing Committee. Computing and imaging technologies for molecular genetics. $9830. (**J Clark**, Project Director)

COMPETITIVE RESEARCH GRANTS (continued)

1999
Weber State University, Research, Scholarship and Professional Growth Committee. Characterization of chromosome ends in *Drosophila* and related organisms. $2859 (**J Clark**, Project Director)

1992-1994
National Science Foundation, Population Biology, #DEB-9119349. Evolution of *P* transposable elements in *Drosophila*. $343,641 (MG Kidwell and **J Clark**)

Total Research Funding **W.S.U. $147,387**
Career $491,478

COMPETITIVE TEACHING GRANTS

2016
Dee Family Technology Grant. Instructional research technology improvement for genetics. $2504. (**J Clark**)

2005
Idaho Technology. DNA thermocycler for genetics and cell biology. $4000. (**J Clark** and B Trask)

2004
W.S.U. Academic Resource and Computing Committee. Projection systems for zoology classrooms. $4414. (D Bernal, **J Clark**, R Okazaki and B Trask)

2003
W.S.U. Academic Resource and Computing Committee. Color laser printer for zoology faculty instruction. $2300. (D Bernal, **J Clark**, J Mull, and R Okazaki)

2002
Willard L. Eccles Charitable Foundation. Enhanced laboratories for cell biology and genetics. $50,000. (**J Clark**, R Okazaki, K Van De Graaff, and S Zeveloff)

2002
W.S.U. Academic Resources and Computing Committee. Laptop computer and projection system for zoology teaching. $5000. (J Cavitt, **J Clark**, R Meyers, and R Okazaki)

2000
W.S.U. Academic Resource and Computing Committee. Notebook computers for teaching and student research $2249. (**J Clark** and R Okazaki)

Total funding to support teaching **$71,267**

UNDERGRADUATE RESEARCH MENTORING

Weber State University

Student	**Accomplishments** [all awards competitive]
[31] MADELEINE SORBONNE 9/20 –	• Research Fellows Program (https://weber.edu/OUR/fellows-overview.html) • one national meeting presentation • Travel to disseminate grant, W.S.U. Office of Undergraduate Research, $1314
[30] TAYLOR WILKO 9/18 –	• one national meeting presentation • Research Fellowship, Ralph S. Nye Charitable Foundation, $3497 • Travel to disseminate grant, W.S.U. Office of Undergraduate Research, $1705
[29] SABRINA HANEY 5/16 – 5/19	• two national meeting presentations • Travel to disseminate grant, W.S.U. Office of Undergraduate Research, $1705
Subsequent Position	**Ph.D. program, Washington State University**
[28] OSCAR BEDOLLA 5/16 – 5/17	• one national meeting presentation • Travel to disseminate grant, W.S.U. Office of Undergraduate Research, $1003
Subsequent Position	**M.D. Program, University of Utah**
[27] SON NGUYEN 5/13 – 5/15	• elected to *Sigma Xi* • three international meeting presentations • Paul and Carolyn Thompson Research Scholarship, $2500 (2) • Research Fellowship, Ralph S. Nye Charitable Foundation, $3259 • Travel to disseminate grant, W.S.U. Office of Undergraduate Research, $931
Subsequent Position	**M.D. (2022) University of Utah**
[26] KELSEY HUNZIKER 5/14 – 5/15	• elected to *Sigma Xi* • one national meeting presentation • Dept. of Zoology Laboratory Research Award, 2015 • Travel to disseminate grant, W.S.U. Office of Undergraduate Research, $882
Subsequent Position	**Research Technician, Great Basin Scientific**
[25] CHRISTOPHER HILL 5/13 – 5/14	• Leon and Frances Staciokis Scholarship, $2500 • Research Fellowship, Denkers Family Foundation, $3494
Subsequent Position	**M.D. (2018) Penn State University**
[24] HAYLIE COX 1/11 – 5/12	• elected to *Sigma Xi* • three national/international meeting presentations • Research Fellowship, Kem and Carolyn Gardner Foundation, $2802 • Travel to disseminate grant, W.S.U. Office of Undergraduate Research, $1036
Subsequent Position	**M.S. (2014) Weber State University**
[23] MICHAL MATYJASIK 1/11 – 5/12	• one peer-reviewed publication (research conducted at University of Alabama)
Subsequent Position	**Ph. D. (2019) University of Colorado**

UNDERGRADUATE RESEARCH MENTORING

Student	**Accomplishments** [all awards competitive]
[22] AMANDA TRUONG 6/09 – 5/12	• elected to *Sigma Xi* • four national/international meeting presentations • one peer-reviewed journal publication • Dept. of Zoology Laboratory Research Award, 2011 • Research Fellowship, Kem and Carolyn Gardner Foundation, $2777 • Cyrus McKell Research Fellowship, $5000 • Travel to disseminate grants (two), W.S.U. Office of Undergraduate Research, $1000; $978 • Society for Molecular Biology & Evolution, Undergraduate Mentoring and Diversity awardee, $2500
Subsequent Position	**M.D./Ph.D. (2021) University of Utah**
[21] KRYSTLE MINEAR 6/09 – 5/10	• elected to *Sigma Xi* • one local and three national/international meeting presentations • Research Fellowship, Ralph Nye Charitable Foundation, $2300 • Travel to disseminate grants (two), W.S.U. Office of Undergraduate Research, $660; $540. • Dept. of Zoology Laboratory Research Award, 2010 • Senior Thesis, Department of Zoology
Subsequent Position	**Research Technician, Great Basin Scientific**
[20] CHRISTY COTTRELL (co-advised with M. Sondossi) 5/08 – 5/10	• elected to *Sigma Xi* • three local and one national/international meeting presentation • Doyle Stephens research scholarship – Friends of Great Salt Lake, $750 • Travel to disseminate grant, W.S.U. Office of Undergraduate Research, $660
Subsequent Position	**Research Technician, Applied Biosciences Corp.**
[19] NATASHA NEILSEN 6/08 – 5/09	• elected to *Sigma Xi* • one local and two national/international meeting presentations
Subsequent Position	**Research Technician, Myriad Genetics**
[18] BRIAN ONEY 6/06 – 5/07	• Research Fellowship, Eccles Foundation, $2100 • Dept. of Zoology Laboratory Research Award, 2007 • one local and two national/international meeting presentation • Senior Thesis, Department of Zoology
Subsequent Position	**M.S. (2011) University of Bayreuth, Germany** **Ph.D. (2016) ETH Zurich, Switzerland**
[17] ELLEN SUURMEYER 5/05 – 8/05	• Fellowship, N.S.F. – Research Experience for Undergraduates • elected to *Sigma Xi* • one national/international meeting presentation
Subsequent Position	**Ph.D. (2011) University of Arizona**

UNDERGRADUATE RESEARCH MENTORING

Student	**Accomplishments** [all awards competitive]
[16] DON ERICSON (co-advised with B. Trask) 5/04 – 5/05	• W.S.U. Undergraduate Research Fellow Award, $2400 • Dept. of Zoology Laboratory Research Award, 2003 • one local meeting presentation
Subsequent Position	**M.D. (2009) University of Utah medical school**
[15] ERIC GABRIELSEN 5/04 – 5/05	• Fellowship, N.S.F. – Research Experience for Undergraduates • selected for Council on Undergraduate's "Posters on the Hill" • one local and one national/international meeting presentation
Subsequent Position	**D.D.S. (2009) Ohio State University dental school**
[14] KENNETH LINDLEY 9/03 – 5/04	• national/international meeting presentation
Subsequent Position	**M.D. (2008) Ohio State University medical school**
[13] CARRIE BAUER (co-advised with M. Sondossi) 9/03 – 5/04	• two local and one regional meeting presentations • *Sigma Xi* undergraduate research award, 2004
Subsequent Position	**Research Technician, Applied Biosystems**
[12] AARON ANDERSON 5/03 – 9/03	• Summer Undergraduate Research Experience in Biology (W.S.U.) • two local meeting presentations
Subsequent Position	**M.D. (2007), University of Cincinnati medical school**
[11] KRISTINA MCKINLEY (co-advised with J Cavitt) 6/01 – 5/03	• Dept. of Zoology Laboratory Research Award, 2003 • elected to *Sigma Xi* • two national/international meeting presentations • Senior Thesis, Department of Zoology
Subsequent Position	**M.D. (2007) University of Utah**
[10] JUSTIN WILSON 5/01 – 5/02	• national/international meeting presentation
Subsequent Position	**M.D. (2006) Penn State University**
[9] MELISSA BENTLEY 1/01 – 5/02	• elected to *Sigma Xi* • national/international meeting presentation • Senior Thesis, Department of Zoology
Subsequent Position	**M.D. (2006) University of Utah**
[8] OLGA FREIDEKIND 5/01 – 7/01	• Diplomate thesis, University of Heidelberg, Germany (research conducted at W.S.U.)
Subsequent Position	**Ph.D. (2008) University of Heidelberg, Germany**

UNDERGRADUATE RESEARCH MENTORING

Student	**Accomplishments** [all awards competitive]
[7] LEAH COLTON 6/00 – 12/01	• Dept. of Zoology Laboratory Research Award, 2002 • elected to *Sigma Xi* • one peer-reviewed publication • EID postgraduate training fellowship, U.S. Centers for Disease Control and Prevention
Subsequent Position	**Ph.D. (2009) Colorado State University**
[6] CHRISTOPHER OSTLER 1/00 – 12/00	• Dept. of Zoology Laboratory Research Award, 2001 • Senior Thesis, Department of Zoology
Subsequent Position	**M.S. (2005) (technology transfer), Westminster College**
[5] JED POLL 6/99 – 12/99	• Dept. of Zoology Laboratory Research Award, 2000
Subsequent Position	**M.D. (2004) Medical College of Wisconsin**

University of Arizona

Student	**Accomplishments** [all awards competitive]
[4] ZAC FORSMAN 6/94 – 2/96	• BRAVO undergraduate fellowship for research at Tsukuba Institute, Japan (funded by the Howard Hughes Medical Institute)
Subsequent Position	**Ph.D. (2004) University of Houston**
[3] PYONG KIM 6/94 – 6/95	• one peer-reviewed publication
Subsequent Position	**M.D. (1999) University of Arizona**
[2] TASHA ALTHEIDE 8/93 – 12/95	• NSF pre-doctoral fellowship • two national/international meeting presentations • one peer-reviewed publication
Subsequent Position	**Ph.D. (2002) University of Arizona**
[1] MICHAEL SCHLOSSER 6/92 – 8/94	• Howard Hughes Medical Institute research fellowship • one peer-reviewed publication
Subsequent Position	**M.D. (1998) Yale University**

UNDERGRADUATE MENTORING SUMMARY (1992 – 2022)

- 24 of 31 students completed post-graduate training:
  1 M.D/Ph.D.; 12 M.D. degrees; 8 Ph.D. degrees; 1 D.D.S. degree; 2 M.S. degrees
- Nine peer-reviewed publications
- 21 peer-reviewed presentations by students at national and international meetings
- Six undergraduate and one Master's theses based on work done at W.S.U.
- $51,491 in competitive fellowships and grants, written by students
- Four national research awards
- 12 students elected to Sigma Xi on the basis of research accomplishments
- W.S.U. Department of Zoology Laboratory Research Awards in 2000, 2001, 2002, 2003, 2005, 2007, 2010, 2011, 2015, 2017, 2018 (11 out of 19 possible)

AWARDS IN RECOGNITION OF MENTORING

Outstanding Mentor, 2017. Assistant Provost for High Impact Programs and Office of Undergraduate Research, Weber State University

– *The university's highest recognition for mentoring excellence*
– *Included monetary award used to fund student research projects*

Putting Students Through Award, Spring semester 2007. Weber State University (nominated by student Brian Oney)

Putting Students Through Award, Spring semester 2001. Weber State University (nominated by student Christopher Ostler)

– *The PST Program enables WSU graduates to recognize those who have helped make their graduation possible through their personal, moral or financial support*

TEACHING EXPERIENCE

Weber State University (1998 – present)

Human Biology (Zoology 1020)
Ten semesters

OVERVIEW
-Approximately 90 students/semester
-Complete responsibility for lectures and demonstrations

INNOVATIONS
-Video and web-based class format
-Extensive treatment of evolution
-Regular written exercises that explore the scientific method

Cell Biology (Zoology 3200)
xx semesters

OVERVIEW
-Approximately 30 students/semester
-Complete responsibility for lectures and laboratories

INNOVATIONS
-Detailed discussion of scientific papers
-Student-led discussions and presentations
-Developed the following new laboratory exercises:
- protein isolation and PAGE
- immunoblotting
- cell culture
- fluorescence microscopy
- polytene chromosome analysis of gene expression

Genetics (Zoology 3300)
xx semesters

OVERVIEW
-Approximately 30 students/semester
-Complete responsibility for lectures and laboratories

INNOVATIONS
-Video and web-based class format
-Genetic database exercises
-Developed the following new laboratory exercises:
- multi-generation *Drosophila* transmission genetics
- DNA barcoding on student collected specimens
- RFLP analysis and gene mapping
- genetic transformation with GFP constructs
- PCR analysis of human genetic variation and population genetic analysis

TEACHING EXPERIENCE (continued)

Research Applications in Genetics (Zoology 4300)
10 semesters

OVERVIEW
-Approximately 10 students/semester
-Laboratory and project-based instruction

INNOVATIONS
-Incorporate independent student research projects
-Extensive sequence analysis component, using GenBank, SwissProt, and other websites
-Developed the following new laboratory exercises:

- DNA quantitation and $C_o t$ analysis
- RFLP analysis and mapping
- DNA cloning and plasmid characterization
- Northern blotting and analysis of gene expression
- DNA sequencing and sequence analysis
- traditional and RealTime PCR
- analysis of gene-knockout mice

Phylogenetic Biology (Zoology 4990-Seminar)
Six semesters

OVERVIEW
-Approximately 14 students/semester
-Complete responsibility for readings and discussion

INNOVATIONS
-Student-led discussions of over 90 research papers covering current applications of phylogenetics to understanding biological diversification, disease and epidemiology, microarrays, speciation, adaptive evolution, phenotypic specialization, and molecular clock estimates.

Ohio State University (1983-1986)

General Biology (Biology 110)
Six quarters

OVERVIEW
-Approximately 80 students per academic quarter
-Complete responsibility for two recitations and three laboratories per week

General Genetics (Genetics 140)
Two quarters

OVERVIEW
-Approximately 30 students per quarter
-Complete responsibility for lectures

PROFESSIONAL MEMBERSHIPS (current memberships only)

Sigma Xi Scientific Research Society *http://www.sigmaxi.org*	1998 – present
Society of Systematic Biologists *http://systbiol.org/*	1996 – present
Society for Molecular Biology and Evolution *http://www.smbe.org/*	1994 – present
American Association for the Advancement of Science *http://www.aaas.org/*	1991 – present
International Society for Salt Lake Research	2010 – present