

## TEXAS STATE VITA

### I. Academic/Professional Background

A. Name: Julie Westerlund

Title: Associate Professor

### B. Educational Background

Degree	Year	University	Major	Thesis/Dissertation
Ph.D.	1996	University of Texas at Austin	Science Education	Reform and Reality: A Two Year Study Observations of Texas Teachers on the Biology I End of Course Examination
M.S.	1988	Univeristy of Minnesota at Minneapolis/St.Paul	Genetics	Effect of mRNA 5' Variable Sequence on the Decay of mRNA in Rabbit Reticulocyte Lysate
B.A.	1985	University of Texas at Austin	Biology	

### C. University Experience

Position	University	Dates
Associate Professor of Biology	Texas State University - San Marcos	2005 to present
Assistant Professor of Biology	Texas State University - San Marcos	1999 –2005
Lecturer in Genetics	Southwest Texas State University	1997 -1999
Lecturer in Genetics	University of Texas at Austin	1996- 1999
Instructor in Biology	Austin Community Collgee	1992-1996

### D. Relevant Professional Experience

Position	Entity	Dates
High School Science Teacher	Austin Independent School District	1988-1996

## II. TEACHING

Courses Taught:

Genetics – BIO 2450

Professional Development - Inquiry Science Teaching – BIO 7100 /MSEC 7100

Earth Science I – BIO 4402, BIO 5402

Earth Science II – BIO 4403, BIO 5403

General Genetics - BIO 3351

Forensic and Human Genetics - BIO 3351

General Science – GS 3310

Supervision of Secondary Science Student Teachers – ED 4681

Problems in Biological Science – BIO 4350

Internship in Biological Laboratory Techniques - BIO 5481

C. Graduate Theses/Dissertations or Exit Committees (if supervisor, please indicate):

Lisa Hanson (current) (Supervisor, thesis)

Wayne Waring (current) (exit committee)

Leslie Dietz (2015) (exit committee)  
 Nicole Shepard (2015) (exit committee)  
 Laura Alberici Da Barbiano (2015) (exit committee)  
 Kristin Sevier (2015) (Supervisor, non-thesis)  
 Alisha Sanders (2015) (exit committee)  
 Matthew Donahue (2014) (exit committee)  
 Lisa Kennedy (2013) (exit committee)  
 Ashley Brooks (2012) (Supervisor, non-thesis)  
 Chase Philips (2012) (Supervisor, non-thesis)  
 Steven Bird (2012) (exit committee)  
 Kristina (Kam) Dame, (2012), (Supervisor, thesis)  
 Craig Handley (2011) (exit committee)  
 Melissa Duran, 2010, (exit committee)  
 Joan Tennison, 2010, (exit committee)  
 Monica Gomez, 2009, (exit committee)  
 Steve Goodman, 2009, (exit committee)  
 Melissa Ponce, 2008, (exit committee)  
 Lisa Gloyna, 2008, (exit committee)  
 Daniel Smith, 2006, (Supervisor, thesis)  
 Chad Cryer, 2006, (Supervisor, non-thesis)  
 Brandy Bagnall, 2005 (Supervisor, non-thesis)  
 Marianne Nicholson, 2005 (Supervisor, non-thesis)  
 Amanda Stephenson, 2003, (exit committee)  
 Nancy Nelson, 2003, (exit committee)

D. Courses Prepared and Curriculum Development:

Undergraduate Degree- Bachelor of Science in Interdisciplinary Science with Composite Science Teaching Certification

Biology 2450 - Genetics

Biology 5100/7100/ MSEC Professional Development - Inquiry Science Teaching

Biology 3351- Forensic and Human Genetics

Guided Field Trips with new curriculum to

1. Llano Region
2. Blanco/ Wimberley Region
3. McDonald Observatory/Davis Mountains
4. Department of Public Safety - DNA Forensics Lab in Austin, TX.

Curriculum Development in inquiry-based science education through formal coursework and workshops (i.e., Lillian McDermot's Physics by Inquiry)

Curriculum Development in the GLOBE (Global Learning and Observations to Benefit the Environment) program - Atmosphere Component

Waco, TX 2/02-5/02 – Teacher Training Workshop

Corpus Christi, TX 6/02 – Trainer of Trainers Workshop

**III. SCHOLARLY/CREATIVE**

## A. Works in Print

## 2. Articles

## Refereed Journal Articles:

Dame, K.K & Westerlund, J.F. (2015). Blind Salamanders beneath and Resident Scientists within our science classroom: Secondary Student Attitudes in NSF Gk-12 Program. *Electronic Journal of Science Education* 19 (7), 1-28.

Goodchild, C.R & Westerlund, J.F & C.R. (In preparation). Building a Summer Genetics Learning Community.

Westerlund, J., Radcliffe, R., Smith, D., Lemke, M., & West, S. (2011). Profiles of US Science Teacher Candidates: Safeguards Amidst the Gathering Storm. *International Journal of Environmental and Science Education*, 6, 213-227.

Westerlund, J.F. (2011). Guest Editorial: Forum on Educational Accountability (FEA) Recommendations for ESEA Reauthorization and Inquiry Science Teaching. *Electronic Journal of Science Education*, 14 (1), 1-3.

Westerlund, J.F. & Fairbanks, D. J. (2010). Gregor Mendel's classic paper and the nature of science in genetics courses. *Hereditas* 147: 293-303.

Schwartz, R., Westerlund, J., Garcia, D., & Taylor, T. (2010). The Impact of Full Immersion Scientific Research Experiences on Teachers' Views of the Nature of Science. *Electronic Journal of Science Education*. 14 (2).

Westerlund, J., & Fairbanks, D., (2004). Gregor Mendel and "Myth-Conceptions". *Science Education*, 88 (5), 754-758.

Stephenson, A.L, West, S.S, Westerlund, J.F., Nelson, N. (2003). An Analysis of Incident/Accident Reports from the Texas Secondary Science Safety Survey, 2001. *School Science and Mathematics*, 103 (6), 293-301.

West, S. S, Westerlund, J.F., Nyland, C.K., Stephenson, A.L, Nelson, N., (Winter, 2003) Safety in Science Classroom: What Research and Best Practice Say. *The Educational Forum*, 67 (2), 174-183.

Westerlund, J.F, Upson, L.K., Barufaldi, J.P., (2002). No time for Venus Flytraps: Effects of End-of-Course Testing on Biology Curriculum in Two States. *Electronic Journal of Science Education* 7 (2).

Westerlund, J.F., & Stephenson, A.L., (2002). Phasing in Future Teachers. A Multidisciplinary Science-Teaching Technique. *Journal of College Science Teaching*, 32 (3), 171-175.

Westerlund, J. F., Garcia, D.M., Koke, J.R., Taylor, T.A., Mason, D. (2002). Summer Scientific Research for Teachers: The Experience and Its Effect. *Journal of Science Teacher Education*, 13 (1): 63-83.

West, S. S, Westerlund, J.F., Nyland, C.K., Stephenson, A.L, (April, 2002). What the Safety Research Says to Texas Science Teachers. *The Texas Science Teacher*. 31 (1) 11-15.

West, S.S., Westerlund, J.F., Stephenson, A.L., Nelson, N.C., Nyland, C.K. (April, 2002). The Secondary Science Safety Profile, 2001. *The Texas Science Teacher*. 31 (1) p. 16-18.

Westerlund, J.F., & West, S.S. (December, 2001). The Use of the National Science Education Standards to Critique a Standardized High School Biology Examination. *Electronic Journal of Science Education*, 6, (2).

Westerlund, J., Ferguson, K., Quintero, E. (October, 2001). Texans in London? A Comparison of Texas and British Science Education Programs through the Eyes of Texas Student Teachers. *The Texas Science Teacher*, 30, (2), 22-26.

Westerlund, J.F. & West, S.S. (April, 1999). The Texas Biology I End of Course Examination: A Critique. *The Texas Science Teacher*, 28 (1), 5-12.

#### b. Non-refereed Articles:

Westerlund, J. (2013) State exams impede inquiry-driven learning” *Austin American Statesman* (4/22/2013, page A8). <http://www.statesman.com/news/news/opinion/westerlund-state-tests-impede-learning/nXQR3/>

Westerlund, J. (2012). *Solutions for Excessive Testing*. Texas ISD.com Homepage for Texas School Officials.

Westerlund, J.F. (1996). How are you going to summarize? Notes and Abstracts in *American and International Education*, 82, pp.6-8.

Westerlund, J.F. (1996). How are you going to summarize? *Vitae Scholasticae Journal of Educational Biography*, 15 (2), 79-81.

#### 3. Abstracts:

Westerlund, J. Fairbanks, D. (July, 2005). An Understanding of Gregor Mendel’s Contributions to Science from a Nature of Science Perspective. Paper presented at the Eighth International History, Philosophy, and Science Teaching (IHPST), Leeds, United Kingdom. p.93.

Westerlund, J.F., Ferguson, K., Quintero, E. (April, 2002). A Comparison between Student Teaching in the United Kingdom and in the United States. *Proceedings of the 2002 National Association for Research in Science Teaching*, New Orleans, LA. p. 250.

Westerlund, J.F. ,Upson, L., (April, 2002). Effects of End-of-Course Testing on Biology Curriculum in Two States. . *Proceedings of the 2002 National Association for Research in Science Teaching*, New Orleans, LA. p. 250.

Westerlund, J.G, Ferguson, K., Quintero, E. (March, 2002). A Comparison between Teaching Practices in the United Kingdom and in the United States: Perceptions From Two Student Teachers. Proceedings of the 105th Annual Meeting of the Texas Academy of Science, Laredo, TX. p. 74.

Stephenson, A.L, West, S.S., Westerlund, J.F., Nelson, N.C. (March, 2002). Results of Incidents/Accidents Reports in Texas Secondary Science Safety Survey, 2001. Proceedings of the 105th Annual Meeting of the Texas Academy of Science, Laredo, TX. p. 74.

Nelson, N.C., West, S.S., Westerlund, J.F. (March, 2002). Conditions of Science Teaching in Texas. Proceedings of the 105th Annual Meeting of the Texas Academy of Science, Laredo, TX. p. 74.

Westerlund, J.F., Koke, J.R., Schwartz, R.S., & N.G., Lederman, (2001, March). Teachers Learning about Nature of Science in Authentic Science Contexts: Modes of Inquiry and Reflection Summer Scientific Research for Teachers. Proceedings of the 2001 National Association for Research in Science Teaching, St. Louis, MO., p. 250.

Stephenson, A.L., & Westerlund, J.F. , (2001, March). Use of the Phasing Philosophy with Pre-Service Teachers – A Two Year Study. Proceedings of the 104th Annual Meeting of the Texas Academy of Science, San Marcos, TX. p. 58.

Westerlund, J.F, Koke, J.R., García, D.M., & Taylor, T. (2000, April). Teachers as Summer Scientific Researchers: Transformative Experiences. Proceedings of the 2000 National Association for Research in Science Teaching, New Orleans, LA. p. 295.

Westerlund, J. F. & Stevenson, A., (2000, March). The Implementation of the Phasing Philosophy with Pre-Service Science Teachers. Proceedings of the 103rd Annual Meeting of the Texas Academy of Science, Kingsville, TX. p. 77.

Westerlund, J. F., Koke, J.R., García, D.M., & Taylor, T. (2000, March). Teachers as Summer Scientific Researchers: Transformative Experiences. Proceedings of the 103rd Annual Meeting of the Texas Academy of Science, Kingsville, TX. p. 78.

West, S.S., & Westerlund, J.F., A Critique of the Biology ExCET. (2000, March). Proceedings of the 103rd Annual Meeting of the Texas Academy of Science, Kingsville, TX. p.78.

Westerlund, J.F. & West, S.S. (1999, March). Application of the National Science Education Standards to the Texas Biology I End of Course Examination. Proceedings of the 1999 National Association for Research in Science Teaching, Boston, MA., p.272.

Westerlund, J.F. & West, S.S. (1999, March). The Application of the National Science Education Standards to the Texas Biology I End of Course Examination. Proceedings of the 1999 102nd Annual Meeting of the Texas Academy of Sciences, Sequin, Texas. p.78.

Westerlund, J.F. (1998, March). Reform and Reality: A Two Year Study Observations of Texas Teachers on a Biology I End-of-Course-Examination [Summary]. Proceedings of the 1998 101st Annual Meeting of the Texas Academy of Sciences, Tyler, Texas. p.63.

Westerlund, J.F. (1998, April). Effects of Biology End of Course Testing in Minority Student Classrooms. Proceedings of the 1998 National Association of Research in Science Teaching. San Diego, CA. p.271.

Westerlund, J. F. (1997, March). Reform and Reality: Observations of Texas Teachers on a Biology End-of-Course Examination [Summary]. Proceedings of the 1997 National Association of Research in Science Teaching Annual Meeting, Oak Brook, Illinois, p.205.

Westerlund, J. F. (1996). Reform and Reality: A Two Year Study. Observations of Texas Teachers on the Biology I End of Course Examination. Dissertation Abstracts International, 58 (01)A, 126. (On-line No. AAG9719516)

#### 5. Book Reviews:

Westerlund, J.F. (Winter, 1997). Review: Human Genetics: Concepts and Applications. Perspectives in Genetic Counseling, 18, (4), p.13.

#### B. Works not in Print

##### 1. Papers Presented at Professional Meetings:

Hanson, L., Westerlund, J. and Dame, K. (January, 2016). *Effects of NSF GK-12 Resident Scientists on Student Attitudes: A Five -Year Study*, Paper presented at the National Association for Science Teacher Education, ASTE, Reno, Nevada.

Hanson, L., Westerlund, J. and Dame, K. (October 2015). *Effects of NSF GK-12 Resident Scientists on Student Attitudes: A Five -Year Study*, Paper presented at the South West Association for Science Teacher Education, Denton, TX.

Goodchild, C. & Westerlund, J. (October 2015). *Building a Summer Genetics Learning Community*. Paper presented at the South West Association for Science Teacher Education, Denton, TX.

Westerlund, J. & Chapman, C. (October, 2014). *Building a Summer Genetics Learning Community*, Paper presented at the North Central Association for Science Teacher Education, NCASTE, Eau Claire, WI.

Westerlund, J. (October, 2014). *Preparing [or Prepared] to Leave? A Professor-Student Dialogue about the Realities of Urban Teaching* by Alyssa Hadley Dunn & Samantha B. Durrance. Round-table discussion presented at the North Central Association for Science Teacher Education, NCASTE, Eau Claire, WI.

Westerlund, J. (October, 2013). *Planting Seeds to Change Texas Science Education Policies*, Poster presented at the North Central Association for Science Teacher Education, (NC-ASTE), Moline, IL.

Westerlund, J. (October, 2013). *NSF GK-12 Project Flowing Waters: Secondary Student Attitudes towards Science and their classroom Resident Scientists over five years*. Poster presented at the North Central Association for Science Teacher Education, (NC-ASTE), Moline, IL.

Westerlund, J. (October, 2012). *Parent-led grass-roots movements to create meaningful science learning for children*, Paper presented at the Southwest Association for Science Teacher Education, (SW-ASTE), Houston, Texas.

Westerlund, J., & Hillman, S. (March, 2012) *Development of a Student Attitude Survey for GK-12 Programs*. Paper presented at National Conference of NSF GK-12 Programs, Washington, D.C.

Westerlund, J., & Megowan-Romanowicz, C. (January, 2012). *The 2011 ASTE Policy and Government Relations Forum Survey: A Representative Voice on National Science Education Policies*. Paper presented at the National Meeting of the Association for Science Teacher Education (ASTE), Clearwater, FL.

Westerlund, J. (October, 2011). *The Cost of High Stakes Testing in Texas*. Paper presented at the South West Association for Science Teacher Education, Lubbock, TX.

Westerlund, J. (October, 2011). *The 2011 ASTE Policy and Government Relations Forum Survey: A Representative Voice on National Science Education Policies*, Round table presented at the South West Association for Science Teacher Education, Lubbock, TX.

Westerlund, J. (October, 2011). *Reauthorization of ESEA (formerly NCLB) and Science Education*. Poster presented at the North Central Association for Science Teacher Education, (NC-ASTE), St. Cloud, MN.

Westerlund, J. (October, 2011). *The 2011 ASTE Policy and Government Relations Forum Survey: A Representative Voice on National Science Education Policies*, Round table presented at the North Central Association for Science Teacher Education, (NC-ASTE), St. Cloud, MN.

Westerlund, J., Hillman, S., & Wieggers, B. (March, 2011). *Building a National Collaboration to Measure Elementary and Secondary Students' Attitudes about Science and Mathematics after GK-12*. Presentation at the Annual NSF GK-12 meeting. Washington, DC

Westerlund, J., Radcliffe, R., Smith, D., Lemke, M., West, S. (January, 2011). *Future Science Teacher Profiles: A Step Toward Combating the Gathering Storm with Ten Thousand Teachers for Ten Million Minds*. A Presentation at the Annual Association for Science Teacher Educators (ASTE). Minneapolis, MN.

Westerlund, J. (January, 2011). *Science Teaching as a Profession by Tobias and Baffert: A Round-Table Discussion of the implications and recommendations*. Round-table presented at the Annual Association for Science Teacher Educators (ASTE). Minneapolis, MN.

Nowlin, WH, J Westerlund, TH Bonner, and R Earl. (August, 2010). *Graduate training through Project Flowing Waters: Challenges at Texas State University*. Ecological Society of America, Pittsburgh, Pennsylvania.

Westerlund, J. & Dame, K. (March, 2010). *Secondary student attitudes towards science after a NSF GK-12 experience*, Presentation at the Annual NSF GK-12 meeting, Washington, DC.

Radcliffe, R., Westerlund, J., Smith, D., Lemke, M. (November, 2009), *Elementary Pre-Service Teachers' Attitudes towards Middle School Teaching*, Paper presented at the Southwest Association for Science Teacher Education, (SW-ASTE), Dallas, TX.

Radcliffe, R., Westerlund, J., Smith, D., Lemke, M. (October, 2009), *Elementary Pre-Service Teachers' Attitudes towards Middle School Teaching*, Paper presented at the North Central Association for Science Teacher Education, (NC-ASTE), Dubuque, IA.

Kam, K., Westerlund, J., Nowlin, W., Bonner, T., Earl, R., (October, 2009) *NSF GK-12: Project Flowing Waters: Resident Scientists in the Secondary School Science Classroom*. Poster presented at the North Central Association for Science Teacher Education, (NC-ASTE), Dubuque, IA

Kam, K., Westerlund, J., Nowlin, W., Bonner, T., Earl, R., (November, 2009) *NSF GK-12: Project Flowing Waters: Resident Scientists in the Secondary School Science Classroom*. Poster presented at the Southwest Association for Science Teacher Education, (SW-ASTE), Dallas, TX.

Westerlund, J.F., Bonner, T.H., Nowlin, W.H., Earl, R.A., (2008, November). *NSF GK-12: Project Flowing Waters*, Paper presented at the Southwest Association for Science Teacher Education, (SW-ASTE), Dallas, TX.

Smith, D., Lemke, M., Westerlund, J., Lien, Violetta, (2008, November). *Last Child in the Texas Woods: Future Elementary Teachers' Childhood Nature Experiences*. Paper presented at the Southwest Association for Science Teacher Education, (SW-ASTE), Dallas, TX.

Westerlund, J.F., Bonner, T.H., Nowlin, W.H., Earl, R.A., (2008, October). *NSF GK-12: Project Flowing Waters*. Paper presented at the North Central Association for Science Teacher Education, (NC-ASTE), Winona, MN.

Westerlund, J. F., Lien., Smith, D.A., Lemke, M.R., (January, 2008) *Last Child in the Texas Woods: Future Science Teachers' Childhood Nature Experiences*, Paper presented at the Annual Meeting of the Association for Science Teacher Education, St. Louis. MO.

Westerlund, J.F, Fairbank, D.J, (January, 2007). *Histories of Scientists in Science Courses for Future Teachers Paradigm: Gregor Mendel*. Paper presented at the Annual Meeting of the Association for Science Teacher Education, Clear Water Beach, FL

Westerlund, J. , Lien, Violetta, (October, 2006), *Last Child in the Texas Woods: Future Science Teachers' Childhood Nature Experiences*. Paper presented at the North Central Association for Science Teacher Education (NC-ASTE), Eau Claire, WI.

Westerlund, J. Fairbanks, D. (October, 2005). *An Understanding of Gregor Mendel's Contributions to Science from a Nature of Science Perspective*. Paper presented at the North Central Association for Science Teacher Education (NC-ASTE), Cedar Falls, Iowa.



Westerlund, J., Lien, V. (October, 2005). NCATE Reform of the Texas State Elementary Science Program. A presentation at the North Central Association for Science Teacher Education (NC-ASTE), Cedar Falls, Iowa.

Westerlund, J. Fairbanks, D. (July, 2005). An Understanding of Gregor Mendel's Contributions to Science from a Nature of Science Perspective. Paper presented at the Eighth International History, Philosophy, and Science Teaching (IHPST), Leeds, United Kingdom.

Westerlund, J. Bagnall, B., Schuemate, J., Henry, C., (2004). GLOBE Aerosol Research Collaboration in Central Texas. A presentation at the 8th Annual GLOBE Conference, Boulder, Colorado.

Westerlund, J.G, Schwartz, R., Garcia, D.G., Taylor, T., (2004) The effects of summer research experiences with or without Nature of Science (NOS) instruction upon the NOS views of secondary science teachers. Paper presented at Annual Meeting of the Education of Teachers in Science (AETS), Nashville, TN. p.19.

Lucy, E., Wilson, J.W., Melear, C. T., Gilmer, P.J., Brown, S., Schwartz, R.S., Westerlund, J.F. (January, 2003) Where is the Science in Science Teacher Education and Science Teaching? Interactive Panel Discussion presented at Annual Meeting of the Association for Education of Teachers in Science (AETS), St. Louis, MO, p. 18.

Westerlund, J.F, Kennedy, T.J., (May, 2003) GLOBE Training Programs for Future Elementary and Secondary School Teachers, Paper presented at the First North American International Organization for Science and Technology Education (IOSTE) Conference, Williamsburg, VA. p.3.

Westerlund, J.F., Schwartz, R., Garcia, D.G., Taylor, T., (July/August, 2003) Explicit / Reflective NOS Instruction and Authentic Science Research: Effects on Teachers' NOS Views, Paper presented at the Seventh International History, Philosophy, and Science Teaching (IHPST) Conference, Winnipeg, Ontario, Canada. p. 5.

Westerlund, J.F. Garcia, D.M, Schwartz, R.S., Taylor, T.A. (October, 2003). Explicit NOS Instruction and Authentic Science Research: Effects on Teachers' NOS Views. Paper presented at the Annual Meeting of the North Central Association for the Education of Teachers in Science (NC-AETS), Rochester, MN. p.3.

Kennedy, P., & Westerlund, J. (April, 2002). Science Component Report – CETP Project-Southwest Texas State University. Paper presented at the Pathways to Change: An International Conference on Transforming Math & Science Education in the K16 Continuum, Arlington, VA.

Westerlund, J.F, Koke, J.R., García, D.M., & Taylor, T., Mason, D. (2000, October). Summer Scientific Research for Teachers: The Experience and its Effects, Paper presented at the North Central Association for the Education of Teachers in Science, Eau Claire, WI.

Westerlund, J.F. & West, S. S. (1999, October) A Critique of the Texas Biology End-of-Course Examination, Paper presented at the meeting of the Conference for the Advancement of Science Teaching, Lubbock, TX.

Westerlund, J. F. & West, S.S. (1999, January) The Use of the National Science Education Standards as a Tool to Critique the Texas Biology I End-of-Course Examination. Proceedings of the 1999 National Association for the Education of Teachers in Science, Austin, TX.

2. Report:

2006/2007 Texas State University Science, Technology, Engineering, Mathematics (STEM) Task Force Report and Strategic Plan

C.

**1. Funded Grants and Contracts**

2008-2013 National Science Foundation - GK-12 Program  
 Awarded **\$2,320,660** Principal Investigator - *Project Flowing Waters*

2011 Texas Pioneer Foundation – *Project Flowing Waters*  
 Awarded **\$15,000** Principal Investigator *Development Initiative*

2010 Texas Pioneer Foundation – *Project Flowing Waters*  
 Awarded **\$96,000** Principal Investigator *Stipends*

2009 Texas Pioneer Foundation – *Project Flowing Waters*  
 Awarded **\$96,000** Principal Investigator *Stipends*

2009 Texas Pioneer Foundation – *Project Flowing Waters*  
 Awarded **\$94,000** Principal Investigator *Stipends*

2008-09 Texas Higher Education Coordinating Board - Co-Principal Investigator  
 Awarded **\$86,999** *Giddings and Waelder Creative Science Instruction (CSI) Teacher Quality Grants Program for Higher Education*

2001 Texas Higher Education Coordinating Board - Principal Investigator  
 Awarded **\$75,000** *A Summer Research Experience for Science Teachers*

2. Submitted, but not Funded, External Grants and Contracts:

(2004-2006) Submission of NSF GK-12 program proposals with the Texas State Depts. of Mathematics and Geography in 2004 and with the Texas State Dept of Geography in 2005 and in 2006 (titled Project Flowing Waters with Co-PIs Dr. Tim Bonner, Dr. Joanna Curran).

D. Fellowships, Awards, Honors:

2000 Southwest Texas State University  
 College of Science Summer Research Fellowship

**IV. SERVICE**

**A. University**

College of Science: 2009-present

1. STEM Committee (Dean Seidman (chair) -College of Science, College of Education) -Current
2. Created a new degree plan with composite science teaching certificate with Drs. Tomasso, Donnelly, Rudzinski, Feakes, and West.

3. Created a new web page with College of Science Advising to recruit and inform students about becoming certified to teach science in the secondary schools
4. Finalized and implemented new Bachelor of Science Major in Interdisciplinary Science with Composite Science Teacher Certification in Fall 2014

College of Education: 2009-13

1. Assisted Dr. Leslie Huling (PI for TRP-Critical Shortage Areas-Dept of Ed Proposal, funded)
2. Assisted Teacher Education Preparation Faculty-Ms. Carolyn McCall, Dr. Liz Stevens on issues related to increasing the number of students certified to teach secondary science
3. Supervised 6 to 10 residents in TRP-Critical Shortage Areas program in local schools

University College: 2015/16

1. Common Experience Book Selection Committee

STEM (Science, Technology, Engineering, Mathematics) Task Force (Chair) (2006-2007)

National Council for Accreditation of Teacher Education (NCATE)

Texas State University NCATE Committee with College of Education (2004 - present)

College of Education, New teacher certification plan committee.

1. 4-8 Science Specialist
2. 4-8 Science/Math
3. 4-8 Generalist
4. Life Science
5. Composite Science

B. Departmental: Biology

I. Administration of NSF *Project Flowing Waters* – Principal Investigator

(Provided eight \$40, 500 NSF fellowships for Biology Department Aquatic Resources PhD students for 5 years)

1. Recruited and selected fellows (doctoral students) and SMCISD teachers
2. Taught inquiry science course, BIO 7100 Professional Development - Inquiry Science Teaching
3. Organized and led executive planning sessions with senior personnel Nowlin and Bonner
4. Designed and conducted 4 meetings, *Headwaters*, *Rivers' End (2 in May)*, *Confluence (August)* and *Mid-Stream (December)* meetings with fellows and teachers
5. Presented *Project Flowing Waters* program to regional and national ASTE meetings.
6. Presented *Project Flowing Waters* program at regional and national NSF GK-12 meetings
7. Revised and analyzed evaluation instruments and student surveys for program improvements
8. Prepared comprehensive annual evaluations in Dec and in May after discussions with external evaluator
9. Prepared proposals and was awarded additional funding from educational foundation (Texas Pioneer Foundation) to supplement NSF funds
10. Checked NSF and TPF budgets monthly and kept budget records with project coordinator
11. Provided Texas Stream Team Training (Water Quality Professional Development for SMCISD teachers)
12. Visited partnership SMCISD schools and new alternative high school program SMCISD Phoenix
13. Attended and participated at the NSF GK-12 National Meetings in Washington, DC in March

14. Maintained the Project Flowing Waters website with biology webmaster
15. Prepared press releases with university and San Marcos communities
16. Maintained partnership relationships with university and San Marcos CISD superintendents, teachers and principals
17. Prepared institutionalization proposals (“white papers”) to work with Texas State Development officers
18. Maintained working relationships with Texas State Geography Department (Dr. Richard Earl and doctoral faculty) as an interdisciplinary partner in *Project Flowing Waters*
19. Collaborated with Texas State University Marketing to create brochures and a promotional short video

II.

Biology Department Committees:

Graduate  
Curriculum,  
Tenure-Tracking  
Biology Chair Search  
Budget  
Personnel  
Awards Day (10/05-2/06)  
Sally Karnau Scholarship committees  
Lecturer Evaluation Committee (Weckerly chair)  
Biology Education Search (Williamson, chair)  
Kristy Daniel Mentoring Committee (Westerlund, chair)

III. Reference letters for students applying to professional schools, seeking employment as science teachers, informal education settings, or field/laboratory settings and scholarships.

D. Professional:

1. Reviewed manuscripts for the Electronic Journal of Science Education
2. Reviewed manuscripts for the International Journal of Science Education
3. Reviewed manuscripts for the International Journal of Environmental and Science Education, Science and Education
4. Served as Associate Editor for Electronic Journal of Science Education-10/09 -present)
5. Completed an external review for Dr. Masha Kazempour (Penn State University) in 9/13
6. Completed an external review for Dr. Audrey Rule (University – Northern Illinois) in 9/13
7. Served as Elections Committee Member for Association for Science Teacher Education – 2013-2015)
8. Completed an external review for Dr. Nicki Hanegan (Brigham Young University) in 9/09
9. Served as Publicity Chair for planning committee of 2011 ASTE National Conference in Minneapolis, Minnesota

Association for Science Teacher Education (ASTE)  
2006-2007 Director – North Central Region  
2005-2006 - Director Elect - North Central  
2005 - Interim Secretary - North Central Region

2004-2006 Professional Development Committee  
2004 -2006 Women in Science Education (WISE) Committee

E. Organizations

1. Professional:

Association for Science Teacher Education (current)  
North Central Association for Science Teacher Education (current)

Astronomical Society of the Pacific  
Association for the Education of Teachers in Science  
National Association for Research in Science Teaching  
National Science Teachers' Association  
National Association of Biology Teachers  
Society for College Science Teachers  
Texas Earth Science Teachers' Association  
Texas Association of Biology Teachers  
Texas Academy of Science