

CURRICULUM VITAE

DALE LYNN VOGELIEN
Professor of Biology

GENERAL INFORMATION

Department of Biology and Physics
Kennesaw State University
1000 Chastain Road, # 1202, Kennesaw, GA 30144-5591
Telephone: (770)423-6507
email: dvogelie@kennesaw.edu

EDUCATION

- 1990 - 1993 Ph.D. in Botany, University of Tennessee, Knoxville, TN. Dissertation title: Physiological Characterization of Selected Salt Tolerant Mutants of the Fern *Ceratopteris richardii*
- 1984 - 1987 M.S. in Plant Physiology and Genetics, University of Tennessee, Knoxville, TN. Thesis title: Assessment of Cell Phenotypes With Respect to Anthocyanin Accumulation in Cultures of Wild Carrot Based on the Ability to Use Intermediates of Anthocyanin Biosynthesis
- 1979 - 1980 B.S. in Biology from the State University of New York at Plattsburgh, Plattsburgh, New York
- 1976 - 1978 A.A.S. in Laboratory Technology, State University of New York at Cobleskill, Cobleskill, New York

PROFESSIONAL EXPERIENCE

- Professor of Biology**, 2004 to present. Department of Biological and Physical Sciences, Kennesaw State University.
- Associate Professor of Biology**, 1998 - 2003. Department of Biological and Physical Sciences, Kennesaw State University.
- Assistant Professor of Biology**, 1993 - 1997. Department of Biological and Physical Sciences, Kennesaw State University.
- Visiting Research Associate**, Summer 1997, 1998, 1999. Department of Biology, Georgia Institute of Technology.
- Visiting Assistant Professor**, January 1997 - June 1997. Department of Biology, Georgia Institute of Technology.
- Visiting Research Associate**, Summer 1994, summer 1995, summer 1996. Department of Botany, University of Tennessee at Knoxville.
- Graduate Teaching Assistant**, 1986 -1988; 1991-1993. Department of Botany, University of Tennessee at Knoxville.
- Research Assistant**, 1982 - 1986; 1988 - 1991. Department of Botany, University of Tennessee at Knoxville.
- Research Assistant**, 1981 - 1982. W. Alton Jones Cell Science Center, Lake Placid, New York.

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

American Society of Plant Physiologists
Association of Southeastern Biologists
Project Kaleidoscope Faculty for the 21st Century Network (PKAL F21)
Sigma Xi, National Scientific Research Society
Beta Beta Beta Biological Society

HONORS, AWARDS, AND FELLOWSHIPS

Scholarship and Creative Activity

Science Alliance Research Award (University of Tennessee at Knoxville); 1986, 1991 & 1992
Monsanto Fellowship (University of Tennessee at Knoxville); 1985, 1986

Service

Georgia Junior Academy of Sciences Appreciation Award (Georgia Academy of Sciences); 2001

Teaching and Mentoring

Nominated for The Distinguished Teaching Award (Kennesaw State University, College of Science and Mathematics) 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2009
Nominated for The Distinguished Advisor Award (Kennesaw State University, College of Science and Mathematics) 2002, 2003 (finalist), 2004, 2010
Nominated Outstanding Teacher of the Year (Kennesaw State University) 1994, 1998
Southern Section of the American Society of Plant Physiologists Graduate Student Award (in recognition of an outstanding research paper; 1993)
Holton Teaching Award (University of Tennessee at Knoxville); 1992

TEACHING, SUPERVISION, & MENTORING

COURSES TAUGHT AT KENNESAW STATE UNIVERSITY

Note: the number of times a given course is taught reflects the number of terms (quarters or semesters) a course was assigned; it does *not* reflect multiple section assignments for a given term.

BIOL 103 General Biology I (number of times taught: 9 quarters)
BIOL 2101 Introduction to the Culture and Methods of Biology (number of times taught: 8 semesters)
BIOL 201/2107 Biological Principles I (number of times taught: 12 quarters/semesters)
BIOL 3300 Genetics (number of times taught: 23 semesters)
BIOL 4420 Plant Physiology (number of times taught: 17 semesters)
BIOL 4400 Directed Study (number of times taught: 12 semesters)
BIOL 4490 Special Topics: Environmental Stress in Plants (number of times taught; 1)
BIOL 4490 Special Topics: Regulation of Gene Expression number of times taught: 2)

BIOL 4490 Special Topics: Gene Expression and Disease (number of times taught: 1)
BTEC 3301 Introduction to Biotechnology (number of times taught: 5)
BTEC 3010 Directed Methods (number of times taught: 1)
SCI 115/1101 Scientific Principles and Processes (number of times taught: 4 quarters)
SCI 116 Scientific Principles and Processes II (number of times taught: 1 quarter)

STUDENT SUPERVISION AT KSU

Directed Study (Undergraduate Research as BIOL 4400)

Maryam Yazdani, 1994
Amber Hendrick, 1994
Ira Pegues, 1996
Andrew Norman, 1998
Kenneth Rodgers, 1998
Dominka James, 1999
Jason Welch, 1999
Michelle Hall, 2000
Kathy Diehl, 2001
Alicia Saran, 2002
David Clements, 2004
Deserah Strand, 2005
Saman Nematbakhsh, 2005
Blake Smith, 2007
James Wright, 2008
Charles Simpson, 2008

Research Supervision (other than BIOL/BTEC 4400)

Mark Hogan, 1999
Adzi Volkhiwa (Kennesaw Mountain High School Senior Project), Jan. 2006 – May 2006
Deborah Gaddis, 2006
Laura Couser, May - Aug 2008
Natalie Dinsmore, May - Aug 2008
Isaac Assan-Mensah, May – Aug 2008
Kim Akridge, May – Aug 2009
Kristin Bell, May – Aug 2009
Laura Couser, May – Aug 2009
Michael Floyd, May – Aug 2009
Kristin Rose, May – Aug 2009
Kyle Harris – May – Aug 2010
Elijah Lee – May – Aug 2010
Aaron Rahn, May – Aug 2010
Jose Baquerizo – May 2010 – Aug 2011
Ann Nemick (*visiting high school science teacher*), June – Aug 2011
Armela Skocic – Jan – May 2013

STUDENT ADVISING AT KSU

Undergraduate students, approximately 40 - 80 per year

Honors Students

Blake Dinsmore, 2006 - 2007

Brandi Black, October 2006 – May 2007

Patrick Black, August 2006 – April 2008

Omotolani Kalejaiye, June 2007 – May 2009

Christopher Metcalf, February 2008 – May 2009

Isaac Assan-Mensah, March 2007 – August 2009

Cameron Bornholm, October 2007 – December 2008

Mariam Nyambura Ali-Mucheru, June 2007 – August 2009

Leah Odom, February 2008 - 2009

Alyse Thacker, August 2008 – 2009

Alan Herrera, August 2008 – May 2010

Andrew Harner, August 2009 – Spring 2012

Jesse Cagle, November 2010 – December 2012

Kaitlin Meade, October 2011 - present

Shanza Paracha, November 2012 - present

RESEARCH AND CREATIVE ACTIVITY

PUBLICATIONS

Refereed Journal Articles:

Dougall, D.K. and D.L. Vogelien (1987) The stability of accumulated anthocyanin in suspension cultures of the parental line and high and low accumulating subclones of wild carrot. *Plant Cell, Tissue and Organ Culture* 8: 113-123.

Vogelien, D.L. and D.K. Dougall (1989) On the nature of variation in yields of phytochemicals observed within plant cell cultures. *In Primary and Secondary Metabolism of Plant Cell Cultures*, Ed. W. Kurz, Springer-Verlag, Berlin, Heidelberg. pp. 53-57.

Vogelien, D.L., G. Hrazdina, S. Reeves and D.K. Dougall (1990) Phenotypic differences in anthocyanin accumulation among clonally related cultured cells of carrot. *Plant Cell, Tissue and Organ Culture* 22: 213-222.

Dougall, D.K. and D.L. Vogelien (1990) Anthocyanin yields of clonal wild carrot cell cultures: Effects of serial cloning plus selection for high or low yield. *Plant Cell, Tissue and Organ Culture* 23: 79-91.

Hickok, L.G., D.L. Vogelien and T.R. Warne (1991) Selection of a mutation conferring high NaCl tolerance to gametophytes of *Ceratopteris*. *Theor Appl Genet* 81: 293-300.

Smith, W.O., H.P. Kelly, D.L. Vogelien and A.R. Close (1992) Phytoplankton sinking rates in the Ross Sea. *U.S. Antarctic J.* 26.

Vogelien, D.L., L.G. Hickok, R.M. Auge A.J.W. Stodola and D.L. Hendrix (1993) Solute analysis and water relations of gametophyte mutants tolerant to NaCl in the fern *Ceratopteris richardii*. *Plant, Cell and Environment* 16: 659-966.

Warne, T.R., D.L. Vogelien and L.G. Hickok (1995) The analysis of genetically and physiologically complex traits using *Ceratopteris*: A case study of NaCl-tolerant mutants. *Int. J. Plant Sci.* 156: 374-384.

Vogelien, D.L., L.G. Hickok and T.R. Warne (1996) Differential effects of Na⁺, Mg²⁺, K⁺, Ca²⁺ and osmotic stress on the wild type and an NaCl-tolerant mutants, *stl1* and *stl2*, of *Ceratopteris richardii*. *Plant, Cell and Environment* 19: 17-23.

Warne, T.R., L.G. Hickok, T.B. Kinraide, and D.L. Vogelien (1996) High salinity tolerance in the *stl2* mutation of *Ceratopteris richardii* is associated with enhanced K⁺ influx and efflux. *Plant, Cell and Environment* 19: 24-32.

Warne, T.R., L.G. Hickok, C.E. Sams, and D.L. Vogelien (1999) Sodium/potassium selectivity and pleiotropy in *stl2*, a highly salt-tolerant mutation of *Ceratopteris richardii*. *Plant, Cell and Environment* 22: 1027 – 1034.

Morgan, M.B., D.L. Vogelien, and T.W. Snell (2001) Assessing coral stress responses using molecular biomarkers of gene transcription. *Environmental Toxicology and Chemistry* 20(3): 537-543.

Bevilacqua, V., J.L. Powers, D.L. Vogelien, R.J. Rascati, C. Tran, S.S. Jain, R. Chabayta, M. Hall and K. Diehl (2002) Collaboration Between Chemistry & Biology to Introduce Spectroscopy, Electrophoresis & Molecular Biology as Tools for Biochemistry. *Journal of Chemical Education* 79(11):1311-1314.

Refereed Abstracts:

Strand, D., D.L. Vogelien and M. Koether. (2006) Selection and Ion Analysis of *C. richardii* Mutants Tolerant to Toxic Levels of Cadmium. *Southeastern Biology* 53 (2): 105.

Smith, B. and D.L. Vogelien. (2008) Use of AFLP to Identify Daylily Cultivars. *Southeastern Biology* 55 (3): 74.

Ghosh, D., D.L. Vogelien, I. Assan-Mensah, L. Couser, N. Dinsmore, A. Rogers, J.B. Weinberg, and J. C. Salerno (2008) Function of the reductase unit of nitric oxide synthase: catalytic model.

PRESENTATIONS AT SCIENTIFIC MEETINGS - Refereed

D.K. Dougall and D.L. Vogelien. The stability of accumulated anthocyanin in suspension cultures of the parental line and high and low accumulating subclones of wild carrot. Presented at the VI International Congress of Plant Tissue and Cell Culture (poster), 1986.

L.G. Hickok, R.M. Auge, T.R. Warne and D.L. Vogelien. Characterization of single and double gene sodium chloride tolerant mutants in the fern *Ceratopteris richardii*. Presented at the American Society of Plant Physiologists National Meeting (poster), 1989.

D.L. Vogelien, L.G. Hickok, R.M. Auge and D.L. Hendrix. Physiological characterization of mutations conferring NaCl tolerance in the fern *Ceratopteris richardii*. Presented at the American Society of Plant Physiologists National Meeting (poster), 1992.

D.L. Vogelien and L.G. Hickok. Ion relations for two mutants conferring tolerance to NaCl in the fern *Ceratopteris richardii*. Presented at the Southern Section of the American Society of Plant Physiologists (paper), 1993.

D.L. Vogelien¹, T.R. Warne, R.M. Auge and L.G. Hickok². Altered K⁺ and Na⁺ uptake may be associated with enhanced salinity tolerance in a highly salt tolerant mutant of *Ceratopteris richardii*. Presented at the ¹American Society of Plant Physiologists National Meeting (poster) and ² the International Botanical Congress (poster), 1993.

T.R. Warne, L.G. Hickok, T.B. Kinraide and D.L. Vogelien. Salt tolerance conferred by the *stl2* mutation of *Ceratopteris richardii* is associated with altered K⁺ transport, growth sensitivity to K⁺, and tolerance to Mg²⁺. Presented at the American Society of Plant Physiologists National Meeting (poster), 1995.

T.R. Warne, D.L. Vogelien and L.G. Hickok. *Ceratopteris richardii*: A model plant system for teaching and research. American Society of Plant Physiologists National Meeting (invited demonstration and display), 1995

T.R. Warne, L.G. Hickok and D.L. Vogelien. The salt tolerant *stl2* mutation of *Ceratopteris richardii* exhibits enhanced selectivity for K⁺ over Na⁺. Presented at the American society of Plant Physiologists National Meeting (poster), 1996.

M. Morgan, D.L. Vogelien and T. Snell. Using differential display PCR to identify molecular biomarkers of mercury stress in sea anemones. Presented at the Society of Environmental Toxicology and Chemistry National Meeting (poster), 1997.

M. Morgan, D.L. Vogelien and T. Snell. Using differential display PCR to identify molecular biomarkers of permethrin stress in staghorn corals. Presented at the Eighth Symposium on

Environmental Toxicology and Risk Assessment National Meeting (paper), 1998.

M. Morgan, D.L. Vogelien, and T. Snell. Assessment of molecular biomarkers identified by differential display PCR for permethrin and copper stress in staghorn corals. Presented at the Society of Environmental Toxicology (paper), 1998.

D.L. Vogelien and M. Hall. Linking Student Scholarship Experiences to Teaching Needs. Presented at the Georgia Academy of Sciences Annual Meeting (paper), 2001.

P.J. Jackson, D.L. Vogelien and H.D. Sutton. Determining parameters useful for the study of hydraulic architecture in sweetgum. Presented at the Georgia Academy of Sciences Annual Meeting (poster), 2002.

D. Strand, D. Clements, D.L. Vogelien and M. Koether. Selection and Preliminary Ion Analysis of *C. richardii* Mutants Tolerant to Toxic Levels of Cadmium. Presented at the Sigma Xi Annual Meeting and Student Research Conference (poster), November 4-5, 2005.

D. Strand, D.L. Vogelien and M. Koether. Selection and Ion Analysis of *C. richardii* Mutants Tolerant to Toxic Levels of Cadmium. Presented at the Association of Southeastern Biologists 67th annual meeting in Gatlinburg, TN (poster), April 2006.

M. Koether, J. Powers, H. Sutton and D. Vogelien. Faculty and Student Experiences and Accomplishments from the Merck-AAAS Undergraduate Science Research Program. Presented at the 2007 American Chemical Society national meeting (poster) in Chicago, IL.

B. Smith and D.L. Vogelien. Use of AFLP to Identify Daylily Cultivars. Presented at the Association of Southeastern Biologists 69th annual meeting in Spartanburg, SC (poster), April 2008.

D. Ghosh, D.L. Vogelien, I. Assan-Mensah, L. Couser, N. Dinsmore, A. Rogers, J.B. Weinberg, and J. C. Salerno. Function of the reductase unit of nitric oxide synthase: catalytic model. Presented at the fifth international conference of Biology, Chemistry, and Therapeutic Applications of Nitric Oxide in Bregenz, Austria (poster), August 2008

I.B. Assan-Mensah, L.M. Couser, N.E. Dinsmore, J.B. Farmer, J.C. Salerno, D.L. Vogelien, and S.M.E. Smith. Nitric oxide synthase catalytic model for reductase function. Presented at the American Society for Biochemistry and Molecular Biology in New Orleans, LA (poster), April 2009

.L. Baquerizo, K.D. Harris, B.L. Hopper, A.L. Nemick, D.L. Vogelien, R. Razdan, and J.C. Salerno. Obligatory Conformation Realignment in Catalysis: NO Synthase and Related Enzymes. Presented at the 242nd American Chemical Society National Meeting in Denver, CO (poster), August 2011

PRESENTATIONS IN THE COMMUNITY – Not Refereed

Dale L. Vogelien, M. Morgan, and T. Snell. The Use of Differential Display PCR for the Detection of Molecular Biomarkers to Hg Stress in Mangrove Sea Anemones. Presented at KSU's First Annual Celebration of Faculty Artists and Scholars (poster), May 1998.

Dale L. Vogelien¹ and Marc Hogan². Cloning the Betty L. Siegel Daylily. Presented at the ¹Celebration of KSU Scholars and Artists (poster), March 2000, and ² KSU's Symposium of Student Scholars (poster), April 2000.

Dominika James, Jason Welch and Dale L. Vogelien,. Use of a PCR-Based Approach to Identify Daylily Cultivars. Presented at KSU's Symposium of Student Scholars (poster) April 2000.

Dale L. Vogelien. Linking Student Scholarship Experiences to Teaching Needs. Presented at KSU's Celebration of Faculty Artists and Scholars (poster) March 2001.

Michelle Hall and Dale L. Vogelien. Determination of Abscisic Acid Content in Water-Stressed Plants. Presented at KSU's Symposium of Student Scholars (poster) March 2001.

Kathy Diehl and Dale L. Vogelien. Examination of Chloroplast Proteins: A Laboratory Exercise Developed for Plant Physiology. Presented at KSU's Symposium of Student Scholars (poster), April 2002.

Alicia Saran and Dale L. Vogelien. Selection and Cloning of Cadmium Tolerant Mutants of C-Fern. Presented at KSU's Ninth Annual Symposium of Student Scholars (poster), April 16, 2004.

David Clements and Dale L. Vogelien. Ion Analysis of the Wild Type and Cadmium Tolerant Strain (*Cdt1*) of *Ceratopteris richardii*. Presented at KSU's Tenth Annual Symposium of Student Scholars (poster), April 8, 2005.

D. Strand, D.L. Vogelien and M. Koether. Selection and Ion Analysis of *C. richardii* Mutants Tolerant to Toxic Levels of Cadmium. Presented at KSU's Eleventh Annual Symposium of Student Scholars (poster), April 7, 2006

Saman Nematbakhsh and Dale Vogelien. Analysis of Phytochelatin Accumulation in the Sensitive Wild Type Strain of *Ceratopteris richardii* Exposed to Cadmium Stress. Presented at KSU's Eleventh Annual Symposium of Student Scholars (poster), April 7, 2006

Deborah Gaddis, Saman Nematbakhsh, Dale Vogelien and Jennifer Powers. Quantification of Phytochelatins in *Ceratopteris richardii* Using Tris-Tricine SDS-PAGE and HPLC. Presented at KSU's Twelfth Annual Symposium of Student Scholars (poster), April 23, 2007

Blake Smith and Dale Vogelien. Use of AFLP to Identify Daylily Cultivars. Presented at KSU's Twelfth Annual Symposium of Student Scholars (poster), April 14, 2008

Dale L. Vogelien. Plant Physiology: Growth and Development. Invited Lecturer for the Metro-Atlanta Master Gardener Program (*annually since* Jan 2002).

GRANTS AND CONTRACTS

Funded Projects as Co-PI or Faculty-Collaborator

NSF-CCLI Grant: Integrating Current Technology Across the Biochemistry Curriculum. V. Bevilacqua (PI), J. Powers, D. L. Vogelien, R. Rascati. \$45,023, 1999-2000.

MERCK/AAAS Grant (Undergraduate Science Research Program). M. Koether (PI), H. Sutton, X. Hauge, J. Powers, D. Vogelien, J. Jaynes, J. Hendrix, and S. Ellermeyer. \$60,000, June 2004 – Aug. 2006.

NIH AREA Grant (R15): Isoform specific effects of the autoinhibitory element and the C-terminus of nitric oxide synthases. J.C. Salerno (PI), D. Ghosh, D. Vogelien, A. Lester. \$201,000, May 2008 – May 2010.

NSF-RUI Domain shuttle mechanisms for catalysis and control in nitric oxide synthases. J.C. Salerno, D. Ghosh, D. Vogelien, A. Lester. \$330,000, Jan. 2010 – Jan. 2013.

Funded Projects as PI

KSU Mentor-Protégé Award (Use of AFLP to Identify Daylily Cultivars); 2008; \$1967.

Merck-AAAS Undergraduate Science Research Program Award, 2004 – 2007; \$60,000 (Co-PI)

KSU Mentor-Protégé Award (Analysis of Phytochelatin Accumulation in the Sensitive Wild Type Strain of *Ceratopteris richardii* Exposed to Cadmium Stress); May 2005; \$1,368

KSU Mentor-Protégé Award (Selection and Ion Analysis of Cadmium Tolerant Mutants of *Ceratopteris richardii*); March 2004; \$1,670

KSU Mentor-Protégé Award (Selection of Cadmium Tolerant Mutants of C-Fern); May 2002; \$1100

KSU Mentor-Protégé Award (The Detection of Abscisic Acid in Extracts of Plants Experiencing Increasing Soil Water Deficit); May 2000; \$1291

KSU Mentor-Protégé Award (The use of PCR to generate molecular fingerprints of daylily cultivars); 1999; \$1079

KSU Mentor-Protégé Award (Propagation of the Betty L. Siegel Daylily Using Tissue Culture); 1998; \$1662.

Georgia Board of Regents Faculty Development Program Award with Georgia Institute of Technology; 1997; \$6,000

Kennesaw State University Faculty Development Grant; 1996; \$2000

KSU SALT Project Award; 2000, 2001

Proposals Submitted but not Funded as Co-PI

2008 NSF: Collaborative Research: Calmodulin activation of a domain mediated electron shuttle in NO synthase. J.C. Salerno, D. Vogelien, J. Hendrix \$237,866

2007 NSF-CCLI: Assessing repetitive biological concepts using hierarchical clustering. E. Albrecht, D. Vogelien, J. Frisch, J. Hendrix. \$123,344

2003 NSF C-RUI: Using Various Aspects of Plant Water Use To Characterize Trees In A

Southeastern Pine-Hardwood Ecosystem And Examine Their Relationship to Ecological Parameters. P. Jackson, L. VanBrackle, H. Sutton, D. Vogelien. \$511,872
2001 NSF C-RUI: Determination of plant functional types as an aid in the prediction of consequences of environmental change. P. Jackson, H. Sutton, D.L. Vogelien, L. VanBrackle. \$463,463

PROFESSIONAL SERVICE

KENNESAW STATE UNIVERSITY

University:

KSU American Medical Association, faculty advisor – 2004 – present
Kennesaw State University's Symposium of Student Scholars – Co-chair (2001), College Representative (2000, 2001)

College (2004 – 2012):

UPCC, member – 2003, 2004
Search Committee for Dean of the College of Science and Mathematics, member – Fall 2011- Spring 2012

Department or Program (2004 – 2013):

Novel Educational Work and Training Committee – 2004 – summer 2008
Strategic Planning Committee – 2007, 2008, 2009
Tenure and Promotion Committee – 2006, 2007, 2008, 2009 (chair), 2010 - present (chair)
Department Faculty Council – 2008, 2009, 2010

Search Committees:

Physics Education, member - 2004
Biology Education, member - 2004
Biology Education Coordinator, member - 2004
Chairperson for the Department of Biology and Physics, member – Fall 2003- Spring 2004
Holmes Neel Distinguished Chair in Biotechnology, chair – Fall 2005- Spring 2006
Evolutionary Developmental Biology, chair – Fall 2006- Spring 2007
Molecular Genetics, chair – Fall 2009 – Spring 2010
Cell Biology, chair – Fall 2010 – Spring 2011
Course Coordinator for BIOL 2101 (Introduction to the Culture and Methods of Biology), spring 2006 to 2009. Responsibilities included standardizing course content and laboratory exercises for multiple sections/instructors and overseeing lab preparation.

Course Coordinator for BIOL 3300 (Genetics), spring 2006 to present. Responsibilities include standardizing course content and laboratory exercises for multiple sections/instructors and overseeing lab preparation.

Course Coordinator for BTEC 3301 (Introduction to Biotechnology), June 2010 to present. Responsibilities include standardizing course content and laboratory exercises for multiple sections/instructors and overseeing lab preparation.

THE PROFESSION

Manuscript Reviews:

Biological Procedures Online – 2004 (1)

Other:

CD-ROM *C-Fern*, reviewer – 2004

THE COMMUNITY

Cobb County Science Advisory Board, member – 2003 - 2006

Georgia Jr. Academy of Sciences Regional Science Bowl, Regional Site Director (1997 – 2003; 2005); volunteer 2004, 2006 – present

Advanced Scientific Internship Program, mentor – 2006 – 2009

Georgia Master Gardener Program, guest speaker – 2004 - present

American Society of Plant Physiologists Grades K-12 Outreach Program (1996 - 1999)

Partners in Science – A Service Learning Project with Big Shanty Elementary – Project Organizer & Faculty Advisor (1999)

Kennesaw State University's Young Scholars Program – Faculty Mentor (summer 1997, 1998)