CURRICULUM VITAE

**2020**

**JON S. MILLER**

**Professor of Biology**

**Presidential Engagement Professor**

**Northern Illinois University**

**DeKalb, IL 60115-2861**

**USA**

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**EDUCATION:**

Doctor of Philosophy, Entomology (Cellular Biochemical Physiology), University of Nebraska-Lincoln, August, 1998.

Master of Science, Entomology (Cellular Biochemical Physiology), University of Nebraska-Lincoln, December, 1994.

Master of Education, Curriculum and Instruction (Secondary Science Education), University of Nebraska-Lincoln, August, 1987.

Bachelor of Science, Secondary Science Education (Biological Science Major, Botany and Zoology Minor), University of Nebraska-Lincoln, May, 1976.

Nebraska Professional Teaching Certificate, Biological Science Endorsement for grades 7 through 12, All Districts.

**PROFESSIONAL EXPERIENCE:**

**Teaching Experience:**

**University and College Teaching in Science**

Professor, Department of Biological Sciences, Northern Illinois University, 2012-present.

Associate Professor, Department of Biological Sciences, Northern Illinois University, 2005-2012.

Assistant Professor, Department of Biological Sciences, Northern Illinois University, 1999-2005.

Instructor, Human Physiology; BIOS 355, Department of Biological Sciences, Northern Illinois University, Fall and Spring semesters, 2018-present.

Lecturer: Human Physiology for the School of Biological Sciences, University of Nebraska-Lincoln. Spring semester of 1998, 1999.

Instructor: Human Anatomy and Physiology for College of Saint Mary, Lincoln Campus, Lincoln, Nebraska. Fall semester, 1998.

Laboratory Instructor: Human Anatomy and Physiology for Southeast Community College, Lincoln Campus, Lincoln, Nebraska. Spring semester, 1997.

Laboratory Instructor: Insect Biochemistry/Physiology for Dr. David W. Stanley, Department of Entomology, University of Nebraska-Lincoln. Fall of odd numbered years 1991-1997.

Laboratory Teaching Assistant: Biology for Dr. Richard Boohar, for the School of Biological Sciences, University of Nebraska-Lincoln, 1975.

**Secondary Science Teaching**

Teacher of Biology, Microbiology, and Chemistry; Lincoln East Senior High School, Lincoln, Nebraska, 1998-1999.

Teacher of Human Anatomy and Physiology, Biology, and Chemistry; Lincoln Northeast Senior High School, Lincoln, Nebraska, 1979-1998.

Teacher of Biology and Chemistry; Ralston Senior High School, Ralston, Nebraska, 1978-1979.

Teacher of Physical Science; Millard Central Junior High School, Millard, Nebraska, 1976-1978.

**Research Experience:**

Principle Investigator in Insect Cellular Biochemical Physiology, Department of Biological Sciences, Northern Illinois University, DeKalb, Illinois, 1999-curently.

Summer Research/Laboratory Assistant in Insect Biochemistry/Physiology under the supervision of Dr. David W. Stanley, Department of Entomology, University of Nebraska-Lincoln, 1992-1998.

Summer Faculty Fellowship in Biochemistry, conducted research in insect biochemistry under the supervision of Dr. David W. Stanley, Department of Entomology/Biochemistry, University of Nebraska-Lincoln, 1991.

Exercise Physiology Laboratory Assistant for Dr. William Thorland, Department of Health, Physical Education and Recreation, University of Nebraska-Lincoln, for a Summer Research Study of Junior Olympic Athletes, 1979.

**Refereed Journal Articles in Science Research**

1. Stanley, D., Haas, E., and Miller, J.S. (2012) Eicosanoids: Exploiting Insect Immunity to Improve Biological Control Programs. *Insects* 3: 492-510; DOI 10.3390/insects3020492.
2. Stanley, D., ****Miller, J.S.****, and Hasan Tunaz. (2009) Eicosanoid Actions in Insect Immunity. Journal of Innate Immunity. 1:282-290; DOI 10.1159/000210371.
3. Merchant, D., Ertl, R.L., Rennard, S.I., Stanley, D.W., and **Miller, J.S.** (2008) Eicosanoids Mediate Insect Hemocyte Chemotaxis. *Journal of Insect Physiology* 54 (1): 215-221*.*
4. Kwon H.S., Stanley, D.W., and **Miller, J.S.** (2007)Bacterial Challenge and Eicosanoids Act in Plasmatocyte Spreading. *Entomologia Experimentalis et Applicata* 124 (3): 285-292
5. Stanley, D.W. and **Miller, J.S.** (2006) Eicosanoid Actions in Insect Cellular Immune Functions.*Entomologia Experimentalis et Applicata*. 119: 1-13. (mini review)
6. **Miller, J.S.** (2005) Eicosanoids Influence *In Vitro* Elongation of Plasmatocytes from the Tobacco Hornworm, *Manduca sexta*. *Archives of Insect Biochemistry and Physiology* 59:42-51.
7. **Miller, J.S.** and Stanley, D.W. (2004) Lipopolysaccharide Evokes Microaggregation Reactions to Hemocytes Isolated from Tobacco Hornworms, *Manduca sexta*. *Comparative Biochemistry and Physiology* 137: 285-295*.*
8. Phelps, P.K., **Miller, J.S.,** and Stanley, D.W. (2003) Prostaglandins, Not Lipoxygenase Products, Mediate Insect Microaggregation Reactions to Bacterial Challenge in Isolated Hemocyte Preparations. *Comparative Biochemistry and Physiology* 136: 409-416.
9. **Miller, J.S.** and Stanley, D.W. (2001) Eicosanoids Mediate Microaggregation Reactions to Bacterial Challenge in Isolated Insect Hemocyte Preparations. *Journal of Insect Physiology* 47: 1409-1417.
10. Stanley, D.W., Hoback, W.W., Bedick, J.C., Tunaz, H., Rana, R.L., Nor Aliza, A.R., **Miller, J.S.** (1999) Eicosanoids Mediate Nodulation Reactions to Bacterial Infections in Larvae of the Butterfly, *Colias eurytheme*. *Comparative Biochemistry and Physiology* 123, 3: 217-223.
11. Tunaz, H., Bedick, J.C., **Miller, J.S.,** Hoback, W.W., Rana, R.L., Stanley, D.W. (1999) Eicosanoids Mediate Nodulation Reactions to Bacterial Infections in Adults of two 17-year Periodical Cicadas, *Magicicada septendecim* and *M. cassini*. *Journal of Insect Physiology* 45: 923-931.
12. **Miller J.S.,** Howard R.W., Rana, R.L., Tunaz, H., Stanley, D.W. (1999) Eicosanoids Mediate Nodulation Reactions to Bacterial Infections in Adults of the Cricket, *Gryllus Assimilis Journal of Insect Physiology* 45: 75-83.
13. Howard, R.W., **Miller, J.S.**, Stanley-Samuelson, D.W. (1998) The Influence of Bacterial Species and Intensity of Infections on Nodule Formation In Insects. *Journal of Insect Physiology* 44, 2: 157-164.
14. Stanley-Samuelson, D.W., Pedibhotla, V.K., Rana, R.L., Rahim, N.A.A, Hoback, W.W, and **Miller, J.S**. (1997). Eicosanoids Mediate Nodulation Response to Bacterial Infections in Larvae of the Silkmoth, *Bombyx mori*. *Comparative Biochemistry and Physiology* 118A: 93-100.
15. **Miller, J.S.** and Stanley-Samuelson, D.W. (1996). The Pharmacology of the Eicosanoid Biosynthesis Inhibitor, Indomethacin, in Larvae of the Tobacco Hornworm, *Manduca sexta. Journal of Insect Physiology* 42, 9: 893-901.
16. **Miller, J.S.**, Howard, R.W., Nyugen, T., Nyugen, A., Stanley-Samuelson, D.W. (1996). Eicosanoids Mediate nodulation responses to bacterial infections in larvae of the tenebrionid beetle, *Zophobas atratus*. *Journal of Insect Physiology* 42: 3-12.
17. Uscian, J.M., **Miller, J.S.**, Sarath, G., and Stanley-Samuelson, D.W. (1995). A Digestive Phospholipase A2 in the Tiger Beetle *Cicindela circumpicta*. *Journal of Insect Physiology* 4, 2: 135-141.
18. **Miller, J.S.**, Nguyen, T., and Stanley-Samuelson, D.W. (1994). Eicosanoids Mediate Insect Nodulation Responses to Bacterial Infections. *Proc. Nat'l. Acad. Sci. USA 91*: 2418-12422.
19. Uscian, J.M, **Miller, J.S.**, Howard, R.W., and Stanley-Samuelson, D.W. (1992) Arachidonic and Eicosapentaenoic Acids in Tissue Lipids of Two Species of Predacious Insects, *Cicindela circumpicta* and *Asilis sp.* *Comparative Biochemistry and Physiology* 103B, No. 4: 833-838.

**Invited Book Chapters**

1. Stanley, D.W. and **Miller, J.S.** (2008) The Role of Eicosanoids in Insect Immunity. In: *Insect Immunology.* (Beckage, N. Ed) Elsevier Inc.
2. Stanley, D.W. and **Miller, J.S.** (1998) Eicosanoids and Reproduction in Animals: What Can We Learn from Invertebrates? In: *Eicosanoids and Related Compounds in Plants and Animals.* (Rowley, AF, Kuhn, JH, and Schewe, T, Eds.) pp 185-198. Portland Press, London.
3. **Miller, J.S.** and Stanley, D.W. (1998) Techniques for Assaying Nodulation in Insects. In: *Techniques in Insect Immunity.* (Wiesner, A, Dunphy, G.B., Marmaras, V.J, Morishima, I., Sugumaran, M., and Yamakawa, M., Eds.) pp 265-270. SOS Publications, Fair Haven, NJ.

**Published Abstracts in Research**

1. Stanley, D.W. and **Miller, J.S.** (2006) Eicosanoids in Invertebrate Immunity: An In Vitro Approach. *IN VITRO, Journal of the Society for In Vitro Biology*, 42: 5A.

**Refereed Journal Articles Related to Science Teaching**

1. **Miller, J.S.** and Toth, R. (2014) The Process of Scientific Inquiry as it Relates to the Creation/Evolution Controversy: I. A Serious Social Problem*. The American Biology Teacher*, Vol. 76, 4: 238-241.
2. Marcus, L., Plumeri, J., Baker, G., and **Miller, J.S.** (2013) A Student-centric Teaching Method to Correctly Visualize the Molecular Basis of Hyperbolic Kinetics in Biological Systems. *Advances in Physiology Education* 37:165-175.
3. **Miller, J.S.** and Windelborn, A.F. (2013) Investigating Diffusion with Technology. *Physics Education* 48: 459-464*.*
4. Naples, V.L., Breed, D. and **Miller, J.S.** (2010) A Skeleton Tells Its Own Story: Forensic Anthropological Analysis for the Science Classroom Laboratory. *The American Biology Teacher,* Vol. 72, 3: 162-171.
5. Naples, V.L. and **Miller, J.S.** (2009) Evolving the Concept of Homology. *Bioscene*: Vol. 35, 1: 43-47.
6. Hubbard, C.J., **Miller, J.S.,** Olson, D. (2005) An Exciting Way to Teach An Old Topic: The Cadaver-Based Anatomy Short-Course for High School Students. The Anatomical Record Part B: *The New Anatomist*. 269:181-193.
7. Naples, V.L. and **Miller, J.S.** (2004) Making Tracks: The Forensic Analysis of Footprints and Footwear Impressions. The Anatomical Record Part B: *The New Anatomist*, 279B: 9-15.
8. **Miller, J.S.** (2004) Insects in the Classroom: A Study of Animal Behavior. *Science Activities*, 41: 24-31*.*
9. **Miller, J.S.,** Wong, S.L., Sass, M., and Nienhuis, J. (2004) Micro-Pipetting: An Important Laboratory Skill for Molecular Biology. *The American Biology Teacher*, Vol. 66: 291-296.
10. **Miller, J.S.** and Naples, V.L. (2002) Forensic Entomology for the Laboratory-based Biology Classroom. *The American Biology Teacher*, Vol. 64, 2: 136-142.
11. **Miller, J.S.** and Stanley, D. W. (2000) Investigating an immune response to bacterial infection. *In: Tested Studies for Laboratory Teaching*, Volume 21 (S.J. Karcher, Ed.). Proceedings of the 21st Workshop/Conference of the Association for Biology Laboratory Education (ABLE), pages 135-145.

**Published Abstract Related to Teaching**

1. Szendrak, E., Read, P., **Miller, J.S.** and Nadaskuti, M. (1998) Teaching Prospects of Plant Biotechnology for High School. Lippay Janos and Vas Karoly Int. Scientific Symposium, pages 114-115.

**Grants Pending or Funded for Math-Science Teacher Education**

1. Illinois Math Science Partnership Grant (ISBE/USDE), I-STEM. Funded 2017-2018 ($49,786).
2. Howard Hughes Medical Institute Inclusive Excellence Program, 2018 HHMI Competition. Preproposal submission, December 6, 2016. Preproposal not accepted.
3. Special Education Research Grant: CFDA #84.324.A (IES), Professional Development with On-Going Support: Impact on Co-Teachers’ Instruction and Student Outcomes. Submitted, Fall 2016 ($1,364,000 over 4 yrs). Not funded.
4. National Science Foundation Grant: Project Summary Improving Collaborative Scientific Argumentation through Teacher Guidance in Science Classrooms. Submitted, Fall 2016 ($450,000 over 3 yrs). Not funded.
5. Illinois Math Science Partnership Grant (ISBE/USDE), I-STEM. Funded 2015-fall 2017 ($750,000 over 3 yrs).
6. Illinois Math Science Partnership Grant (ISBE/USDE), Project ENGINE: Engineering the Next Gen Initiative for Northern Illinois Engagement. Funded 2012-2014 ($320,000 over 2 yrs).
7. Illinois Math Science Partnership Grant (ISBE/USDE), Integrating Math and Science with Content, Pedagogy, and Technology. Funded 2011-2013 ($280,000 over 2 yrs).
8. Illinois Math Science Partnership Grant (ISBE/USDE), Mastering Biology with Content, Pedagogy, and Technology. Funded 2007-2012 ($1,000,000 over 5 yrs).
9. Illinois State Board of Education Eisenhower Grant, Meeting the Needs of Exceptional Students in Science. Funded 2004 ($90,000 for one year).

**Workshops, Technical Reports Related to Teaching:**

**Miller, J.S.** (2015) Protocols, Strategies and Resource Management. Summer (June 22-26, 2015) Workshop for Training Mentor Teachers Breakout Facilitator and Presenter. Office of Educator Licensure and Preparation, Northern Illinois University, DeKalb, IL.

**Miller, J.S.**, Wong, S., Sass, M., Nienhuis, J. (2000) Visualization of Molecular Biological Principles with Wisconsin Fast Plants and PCR Technology. Sponsored by DeKalb High School, DeKalb, IL, and The Department of Biological Sciences, Northern Illinois University, DeKalb, IL in collaboration with the Department of Horticulture, University of Wisconsin, Madison, WI.

**Miller, J.S.**, Bell-Wehr, J., Sass, M., Saar, D., Nienhuis, J. (2000) Broccoli, Cabbage and DNA: A Workshop in Molecular Biology. Sponsored by Oak Park River Forest High School, Oak Park, IL, Triton Community College, River Grove, IL, and Northern Illinois University Department of Biological Sciences, DeKalb, IL, in collaboration with the Department of Horticulture, University of Wisconsin, Madison, WI.

**Miller, J.S.**, Johns, M., Sass, M., Saar, D., Nienhuis, J. (2000) Pilot Workshop in Molecular Biology. Sponsored by Northern Illinois University Department of Biological Sciences, DeKalb, IL, in collaboration with the Department of Horticulture, University of Wisconsin, Madison, WI.

**Miller, J.S**. and Thornton, R. (1999). Summer workshop for Elementary School Teachers. “Butterflies, Bugs, and Biology.” Sponsored by Lincoln Public School District, Lincoln, Nebraska, Department of Entomology, University of Nebraska, Lincoln Nebraska, Math and Science Area of Strength.

Szendrak, E., Read, P., **Miller, J.S.,** and Nadaskuti, M. (1998) Teaching Prospects of Plant Biotechnology for High School. Lippay Janos and Vas Karoly Int. Scientific Symposium.

**Miller, J.S.** and Merritt, D, (1997). Procedure for Student Health Care Skills Licensure, for the School-to-Work Program for the Lincoln Public School District.

**Miller, J.S.** (1988). Course Learnings Curriculum for High School Human Anatomy and Physiology for the Lincoln Public School District.

**Poster Presentations:**

Yatsyk, I., Persino, P., Holtz, M., Spears, J., **Miller J.S.,** and Vemu, S. Transforming a STEM Classroom with Higher-Order Cognitive Skills for Improved Student Metacognition. American Association for the Advancement of Science Annual Meeting in Chicago, IL, February 13-17, 2014.

Persino, P., **Miller J.S.,** and Vemu, S. Transforming A Biology Course to a Blended Community, Course Transformation Project, Northern Illinois University, October 31, 2013**.**

**Miller, J.S.**, Johns, M., and Wong, S. Sharing Our Skills in Biotechnology: A Partnership with Public Schools and NIU. NIU P-20 Initiative program. Invited Poster Presentation held at NIU-Altgeld Hall, January 19, 2005.

**Miller, J.S.**, Phelps, P.K., and Stanley, D.W. Prostaglandins, Not Lipoxygenase Products, Mediate Insect Microaggregation Reactions to Bacterial Challenge in Isolated Hemocyte Preparations. National Meeting of the Entomological Society of America, Cincinnati, OH, October, 2003.

**Miller, J.S.**, Howard R.W., Nguyen T., Nguyen A., Rosario R.M.T., Stanley-Samuelson D.W. Eicosanoids Mediate Nodulation Responses to Bacterial Infections in Larvae of the Tenebrionid Beetle *Zophobas atratus*. National Meeting of the Entomological Society of America, Las Vegas, NV,December, 1995.

**Miller, J.S.** and Stanley-Samuelson D.W. The Pharmacology of the Eicosanoid Biosynthesis Inhibitor, Indomethacin, in Larvae of the Tobacco Hornworm, *Manduca sexta*. National Meeting of the Entomological Society of America, Dallas TX,December, 1994.

**Miller, J.S.**, Nguyen T., Stanley-Samuelson D.W. Eicosanoids Mediate Insect Nodulation Responses To Bacterial Infections. National Meeting of the Entomological Society of America, Indianapolis IN,December, 1993.

**Oral Presentations:**

**Miller, J.S.** *Introduction to Service Learning through Student Research for High School Science*.Conference for Ideas for Integrating Science, Technology, Engineering, the Arts, and Mathematics into Your Classroom, Northern Illinois University, DeKalb, IL. Invited Seminar. August 3, 2015.

**Miller, J.S.** *Hot Topics for Next Generation Science Standards*. McHenry College Leadership Day. McHenry County College, McHenry, IL. Invited Seminar. February 13, 2014.

**Miller, J.S.** *Science Teacher Education: Recruitment, Education, and Retention of Future Science Teachers.* Department of Entomology, University of Nebraska-Lincoln, Lincoln, NE. Invited Seminar. May 23, 2011.

**Miller, J.S.** *Teacher Education in Biology*. Department of Biological Sciences, Northern Illinois University, DeKalb, IL. April 7, 2011.

**Miller, J.S.** *Eicosanoids Mediate Insect Cellular Immune Reactions to Bacterial Infections.* Department of Biological Sciences, Northern Illinois University, DeKalb, IL. March 3, 2011.

**Miller, J.S.** *Mastering Biology with Content, Pedagogy, and Technology*, Colloquium Speaker for Department of Leadership, Educational Psychology and Foundations, Northern Illinois University, DeKalb, IL, September 24, 2010.

**Miller, J.S.** *Eicosanoids Mediate Insect Cellular Immune Reactions to Bacterial Infections.* Department of Entomology, University of Illinois-Urbana Champaign, Urbana, IL. Invited Seminar. October 10, 2005.

**Miller, J.S.** *Eicosanoids Mediate Insect Cellular Immune Reactions to Bacterial Infections.* Department of Biological Sciences, Illinois State University. Invited Seminar. March 31, 2005.

**Miller, J.S.** *Eicosanoids Mediate Insect Cellular Immune Reactions to Bacterial Infections.* Department of Biological Sciences, Northern Illinois University, DeKalb, IL. April 29, 2004.

**Miller, J.S.** *Eicosanoids Mediate Insect Cellular Immune Reactions to Bacterial Infections.* Department of Biological Sciences, Western Illinois University, Macomb, IL. Invited Seminar. April 23, 2004.

**Miller, J.S.** *Eicosanoids Mediate Insect Cellular Immune Reactions to Bacterial Infections.* Department of Entomology, University of Missouri, Columbia, MO. Invited Seminar. April 16, 2004.

**Miller, J.S.** *Science/Ag Teachers Workshop.* Co-sponsored by Monsanto Foundation and Northern Illinois University. Waterman Research Laboratory Facilities, Waterman, IL, November 10, 2001.

**Miller, J.S.** and Stanley, D.W.*Workshop Presenter for ABLE Conference* at the University of Nebraska-Lincoln, School of Biological Sciences, Lincoln, NE, June, 1999.

**Miller, J.S.** and Stanley-Samuelson D.W. *Presenter for the University of Nebraska-Lincoln Department of Entomology Pest Management Training School*, Lincoln, NE, February, 1996.

**Miller, J.S.** A Workshop for Public School Teachers: *Insects in the Classroom.* Entomological Society of America, North Central Branch, Insect Expo, Omaha, NE, March, 1996.

**Miller, J.S.** and Stanley-Samuelson D.W. *High School Research in Immunology*.Nebraska Association of Teachers of Science Fall Conference, Camp Calvin Crest, Fremont, NE, October, 1994.

**PROFESSIONAL SERVICE:**

**Institutional Service:**

**University Committees**

**Research and Development STEM Learning Exchange representative for NIU (2012-2019)**. The R & D STEM Learning Exchange is a $10.3 million public/private partnership designed to better prepare Illinois students for careers in STEM fields. These statewide Learning Exchanges will work together with regional, educational and business networks to aggregate curricular resources, assessment tools, professional development systems, work-based learning opportunities and problem-based learning challenges. They will support performance evaluation across the P-20 education and workforce system, and result in better prepared students for a 21st century workforce.

**College Committees**

**College Council (2011-2013).** I represented the Department of Biological Science on the College Council. As a member of The College Council, I had the responsibility of reviewing and voting on applications for sabatical as well as applications for tenure and promotion, including hearings for appeals of tenure and promotion recommendations. Additional duties include ranking of research and artistry proposals.

**The Dean’s Representative** for supervisory committees for the Graduate School. I am called to serve in this capacity once or twice a year. My duties include attending doctoral defenses in the College of Education here at NIU. I then write and submit a report to the Dean of the Graduate School regarding the quality of the candidates’ dissertation defense experience.

**Departmental Committees:**

**Governance and Graduate Committees.** I have served on the Department’s Governance Committee (2005-2007, 2012-2013, 2015-2019) and Graduate Committee (2006-2008). The Governance Committee reviews application for equipment and determines the distribution of funds for the purchase of equipment to individuals in the department. I am currently Chair of the Governance Committee. The Graduate Committee works with the Department’s graduate advisor on the recruitment and admission of graduate students that have applied to the Department of Biological Sciences to pursue advanced degree programs. The committee also plays a role in the assignment of graduate assistantships to support the various laboratory based coures.

**Department’s Seminar Committee (2005-2006).** I helped recruit and host seminar speakers as the Cell Section representative, and assisted recruitment of speakers for the Ecology and Evolution Section.

**The Institutional Review Board (IRB) Representative (2012-current).** The IRB reviews research proposals that involve human participants to provide oversight in protecting the rights, welfare and wellbeing of subjects in research. I serve as an Authorized Departmental Reviewer for the IRB.

**Service to the Scientific Community and Teacher Education**

**Illinois Science Teachers Association (2015-current).** I promote and conduct science teacher professional development opportunities. I participate in administration activities and a board member and engage in the organization and implementation of the Illinois Science Teacher Association State Conference.

**Reviewer of Manuscripts in Science Research.** I review manuscripts for journals in my field of research including *Journal of Insect Physiology*, *Archives of Insect Biochemistry and Physiology*, *Comparative Biochemistry and Physiology*, *Insect Biochemistry and Molecular Biology, Annuals of the Entomological Society of America, Entomologia Experimentalis et Applicata, Biologia, Naturwissenshaften,* and *Entomologica Fennica*.

**Reviewer of Manuscripts in Science Education research.** I review manuscripts for journals in the field of science education including *The American Biology Teacher, Journal of Biology Education, Journal of College Science Teaching*, *Journal of Science Education and Technology,* and *Science Activities.* I have been a consulting editor for the journal *Science Activities* since 2004.

**President’s Award Committee** **for the Entomological Society of America**. I chaired this committee in 2009 and 2010.

**Advisory Panel for the *Science in the Moment Project*.** I serve on the advisory panel for the Science in the Moment Project (SciMo). The *Science in the Moment Project* is a research study directed by Drs. Jennifer Schmidt and Lee Shumow of the Department of Leadership, Educational Psychology and Foundations, College of Education, at Northern Illinois University. The project focuses on documenting, describing, and understanding students’ momentary levels of cognitive and affective engagement while learning high school science. Researchers systematically record students’ in-the-moment classroom experiences as they occur, and link various aspects of subjective experience to specific courses (i.e., general science, biology, chemistry, and physics), content units (i.e., simple machines, ionic and covalent chemical bonding), and instructional activities (i.e., lectures, labs, group work).

**OTHER PROFESSIONAL INFORMATION:**

**Membership in Professional Organizations**

American Physiological Society

American Entomological Society

American Association of Colleges for Teacher Education

Illinois Science Teachers Association (Board Member and Region 2 Director)

The National Association of Biology Teachers

National Science Teachers Association

**Awards and Honors**

Presidential Engagement Professorship, 2014

My article in the *Journal of Insect Physiology*, Volume 54, Issue 1, 2008, received an award for being a “Top Cited Article” for 2008-2010 (Merchant, D., Ertl, R.L., Rennard, S.I., Stanley, D.W., and Miller, J.S. (2008) Eicosanoids mediate insect hemocyte chemotaxis. *Journal of Insect Physiology* 54 (1): 215-221).

UNL Regents Tuition Fellowship for 1997-1998 Academic Year.

UNL Regents Tuition Fellowship for 1997 Summer Session.

Sigma Xi Outstanding High School Science Teacher Award, 1994.

UNL Regents Tuition Fellowship for 1992-93 Academic Year.

UNL Regents Tuition Fellowship for 1993 Summer Session.

Babson Scholarship for Secondary Science Education 1975 and 1976.