

## CURRICULUM VITAE

Frances E. Weaver, Ph.D.

Associate Professor of Biology  
Chair of the Department of Biochemistry  
Science Division  
Widener University  
One University Place  
Chester, PA 19013

Phone (610) 499-4519  
Fax (610) 499-4496  
email: [feweaver@widener.edu](mailto:feweaver@widener.edu)  
[www.science.widener.edu/~weaver/](http://www.science.widener.edu/~weaver/)

### EDUCATION:

- 1979 B. A., Biology *cum laude*, Smith College; Northampton, MA  
1985 Ph. D., Cell Biology, Johns Hopkins University; Baltimore, MD

### EXPERIENCE:

- 2002- Chair of Biochemistry, Widener University. Majors courses: Biochemistry Seminars I, II and III, Senior Thesis in Biochemistry
- 2000- Associate Professor, Department of Biology, Widener University Majors' courses: Biological Concepts III: Principles of Cellular and Molecular Biology, Developmental Biology, Research Development, Senior Thesis in Biology. Non-majors' courses: Biology of Cells and Genes, Principles of Biological Systems, Microbiology, Biology and the Female (crosslisted as Women's Studies), Human Physiology
- 1995-1999 Assistant Professor, Department of Biology, Widener University (See courses above)
- 1995 Consultant (June-Aug.), Smithkline Beecham Co. Conducted independent research on human DNA repair genes and protein-protein interactions of the rat groucho gene product
- 1994-1995 Visiting Assistant Professor, Department of Biology, Widener University Major's courses: Comparative Vertebrate Anatomy, Developmental Biology, Research Methods and Analysis. Non-majors' course: Principles of Biological Systems
- 1993-1993 Assistant Professor, tenure track, Department of Biology, Framingham State College, Framingham, MA. Majors' courses: Developmental Biology, Methods in Biological Research II, Biology I Laboratory, Recombinant DNA Techniques, Human Physiology and Anatomy laboratories. Non-majors' courses: Biology of Marine Organisms, Backgrounds of Modern Biology, Biological Concepts laboratories, Social Implications of Modern Biology
- 1992-1993 Visiting Assistant Professor, Department of Biology, Framingham State College, Framingham, MA. Non-majors' courses taught are listed above. .

- 1993-1995 Visiting Scientist, Laboratory of Dr. David Wolf, Worcester Foundation for Experimental Biology, Shrewsbury, MA (now part of UMass Medical School) Research on the maturation dependent sperm surface antigen ESA152 and its role in fertility using cell biological, biochemical, and molecular biological techniques
- 1992 Instructor, part-time, Anatomy and Physiology II, lecture and laboratory, Division of Continuing Education, Massachusetts Bay Community College, Framingham MA
- 1991 Conference Leader (Winter term) for Metabolism and Function of Human Organ Systems, Harvard Medical School, Boston, MA
- 1989-1992 Research Fellow, Laboratory of Dr. Gideon Koren, Division of Cardiology, Brigham and Women's Hospital, Brookline, MA. Structure-function studies of potassium channels using molecular biological and physical biochemical techniques
- 1987-1989 Research Associate, Cell Biology Group, Laboratory of Dr. Grant Fairbanks, Worcester Foundation for Experimental Biology, Shrewsbury, MA. Biochemical and immunochemical studies of epididymal maturation of ram sperm plasma membranes
- 1985-1987 Postdoctoral Fellow, Laboratory of Dr. Dennis Koppel, Department of Biochemistry, University of Connecticut Health Center, Farmington, CT. Image processing analysis of the structure and membrane dynamics of moving cells
- 1982-1983 Lecturer, Student Science Seminars, Maryland Academy of Science, Baltimore, MD
- 1980-1981 Teaching Assistant, Biochemistry and Cell Biology Laboratory. Johns Hopkins University, Baltimore, MD
- 1979-1984 Doctoral Fellow, Department of Biology, Johns Hopkins University. Baltimore, MD. Thesis Advisor: Dr. Michael Edidin. Doctoral Thesis Title: "Studies on the effects of temperature and membrane composition on the organization of eukaryotic cell membranes."

### **HONOR SOCIETIES**

*Sigma Xi* The Scientific Honor Society

*Beta Beta Beta* Biological Honor Society (Graduate member)

### **OTHER RECOGNITION**

Project Kaleidoscope F21 (Faculty for the 21st century) Member

### **MEMBERSHIP IN PROFESSIONAL SOCIETIES**

Society for Developmental Biology

Society for Integrative and Comparative Biology

Council on Undergraduate Research

**PEER REVIEWED PUBLICATIONS**

- 2007 Donato, M., Schiavi, J., Ulreich, A., WEAVER, F. E. and D. J. Coughlin. Myosin Regulatory Light Chain Expression in Trout Muscle. *Submitted to the Journal of Experimental Biology*
- 2007 WEAVER, F. E., S.R. Shaikh, and M. Edidin. Probing Membrane Organization by Measuring Lipid Diffusion Coefficients in Sea Urchin Eggs from Different Growth Temperatures. *Submitted to Chemistry and Physics of Lipids*
- 2005 Coughlin, D.J., N. D. Caputo, K. L. Bohnert, and F. E. WEAVER. Troponin T expression in trout red muscle correlates with muscle activation. *Journal of Experimental Biology* 208:409-417
- 2001 WEAVER, F. E., Stauffer, K. A. and D. J. Coughlin. Myosin heavy chain expression in the red, white and ventricular muscles of juvenile stages of rainbow trout. *Journal of Experimental Zoology* 290:751-758
- 2001 Coughlin, D. J., Burdick, J., Stauffer, K. A., and F. E. WEAVER. Rainbow trout (*Oncorhynchus mykiss*) display a developmental shift in red muscle kinetics, swimming kinematics and myosin heavy chain isoforms. *Journal of Fish Biology* 58:701-715
- 1994 Babila, T, Moscuci, A., Wang, H., WEAVER, F. E., and G. Koren. Assembly of mammalian voltage-gated potassium channels: Evidence for an important role of the first transmembrane segment. *Neuron* 12:615-626
- 1993 WEAVER, F. E., Dino, J., Germain, B. J., Wolf, D. E., and G. Fairbanks. Biochemical characterization and epididymal localization of the maturation dependent ram sperm surface antigen ESA152. *Mol.Reprod.Devel.* 35:293-301
- 1991 Liman, E., Hess, P., WEAVER, F.E., and G. Koren. Voltage sensing residues of a mammalian K<sup>+</sup> channel. *Nature* 353:752-756
- 1991 MacKinnon, C. A., Weaver, F. E., Yoder, J. A., Fairbanks, G., and D. E. Wolf. Crosslinking of a maturation dependent sperm plasma membrane antigen induces the acrosome reaction. *Mol. Reprod. Devel.* 29:200-207
- 1990 WEAVER, F. E., Polster, H., Febboriello, P., Schmid-Schoenbein, H., Sheetz, M. P., and D. E. Koppel. Normal Band 3-cytoskeletal interactions are maintained on tanktreading erythrocytes. *Biophys. J.* 58:1427-1436
- 1985 Edidin, M. and F. E. WEAVER. Lateral diffusion of proteins in the membranes of epithelial cells. *Studia Biophysica* 110:77-82

**NON-PEER REVIEWED PUBLICATIONS**

- 2005\* Patel, K.K, C. Siegel, F. E. WEAVER and I. Vatnick. Genetic monogamy of captive pigeons (*Columba livia*) as assessed by DNA fingerprinting. BIOS, the quarterly journal of the *Beta Beta Beta* Biological Honor Society 76(2) 97-101

*\*This article received the Beta Beta Beta Biological Honor Society McClung Award for the best paper published in BIOS for the year 2005. The award was a plaque for our BBB chapter and a monetary award split by the authors of \$150.*

**ABSTRACTS (Presentations with published abstracts)**

- 2006 Donato, M., D. J. Coughlin and F. E. WEAVER. Real Time PCR Analysis of Myosin Light Chain 2 Expression in Rainbow Trout Swimming Muscle. Presented at the National Conference on Undergraduate Research (NCUR), Asheville, NC. April 2006.
- 2005 Coughlin, D. J., M. Donato, A. Ulerich, J. Schiavi, and F. E. WEAVER. Developmental Transitions in Myosin Light Chain 2 Expression in Trout Muscle. Presented at Presented at the Society for Integrative and Comparative Biology (SICB), San Diego, CA. January 2005.
- 2005 Ulerich, A. D., WEAVER, F.E., and Coughlin, D.J. Myosin Light Chain 2 Isoform Expression in Red Muscle of Rainbow Trout, *Oncorhynchus mykiss*. Presented at NCUR, Virginia Military Institute and Washington and Lee University, Lexington, VA. April 2005.
- 2005 Donato, M. E., WEAVER, F.E., and Coughlin, D.J. Quantitative PCR analysis of mRNA expression levels of myosin light chain 2 isoforms in the red muscle of Rainbow trout during parr-smolt transformation. Presented at NCUR, Virginia Military Institute and Washington and Lee University, Lexington, VA. April 2005.
- 2004 Coughlin, D. J., N. D. Caputo, K. L. Bohnert, and F. E. WEAVER. Troponin-T and Longitudinal Variation in the Contractile Properties of Trout Muscle. Presented at SICB, New Orleans, LA. January 2004.
- 2004 Colombo, M., M. Rameswaran, F. E. WEAVER, M. A. Brodtkin, and I. Vatnick. Molecular Characterization of the Acid-Induced Stress Response of Adult Leopard Frogs (*Rana pipiens*) presented at SICB, New Orleans, LA. January 2004.
- 2003 Schiavi, J. M., D. J. Coughlin, and F. E. WEAVER. Myosin Light Chain 2 Expression in Aerobic Muscle of Rainbow Trout, *Oncorhynchus mykiss*. Presented at Presented at NCUR, Salt Lake City, UT. March 2003.
- 2003 Caputo, N. D., F. E. WEAVER, and D. J. Coughlin. Muscle Contraction and Troponin T Expression in Rainbow Trout Red Muscle. Presented at SICB, Toronto, Ontario, Canada. January 2003.

- 2002 N. D. Caputo, J. Wilwert, D. J. Coughlin, and F. E. WEAVER. Muscle Contraction and Troponin T Expression in Rainbow Trout (*Oncorhynchus mykiss*) Red Muscle. Presented at NCUR, White Water, WI. April 2002.
- 2001 Fuller, T. and F. E. WEAVER. Developmental Genes of *Limulus polyphemus*. Presented at NCUR, Lexington, KY. March 2001.
- 2000 K. A. Stauffer, D. J. Coughlin, and F. E. WEAVER. Evaluation of the Functional Variations in Myosin Heavy Chain Isoforms of Rainbow Trout. Presented at NCUR, Missoula, MT. April 2000.
- 1999 Stauffer, K.A., F. E. WEAVER, and D.J. Coughlin. Developmental Changes in Red Muscle of Rainbow Trout are Associated with Variations in Myosin Heavy Chain Expression. Presented at SICB, Denver, CO. January 1999.
- 1998 Stauffer, K., D. J. Coughlin, and F. E. WEAVER. Cloning of a Novel Myosin Heavy Chain cDNA from Rainbow Trout Red Muscle. Presented at NCUR. Salisbury, MD. April 1998.
- 1998 Siegel, C, K. Patel, I. Vatnick, and F. E. WEAVER. Using DNA Fingerprinting to Determine Monogamy in Pigeons. Presented at NCUR, Salisbury, MD. April 1998.
- 1995 McKinnon, C. A., WEAVER, F. E., Browne, E. S., and D. E. Wolf. Vesicle to Plasma Membrane Transfer of a Hydrophobic Ram Sperm Protein, ESA152, to Heterologous Sperm Leads to Activation of Acrosomal Exocytosis upon Antibody Crosslinking. Presented at the Biophysical Society Meeting, San Francisco, CA. February 1995.
- 1994 McKinnon, C. A., WEAVER, F. E., Browne, E. S., Braha, O., and D. E. Wolf. Characterization of a Maturation Dependent Ram Sperm Antigen and Reconstitution of its Activity into Heterologous Sperm. *Mol. Biol. Cell Suppl.* 5:98a 1994.
- 1992 WEAVER, F.E., and G. Koren. Assembly of Potassium Channel Subunits Translated *in vitro*. *Circulation (Suppl.)* 86:98a 1992. Presented at the American Heart Association meeting (AHA). New Orleans, LA. 1992.
- 1991 Logothetis, D. E., Liman, E. R., WEAVER, F., Movahaedi, S., Sattler, C., Koren, G., Nadal-Ginard, B., and P. Hess.(1991) Analysis of Charge Mutations in the S4 Region of the Delayed Rectifier K<sup>+</sup> Channel RCK-1 *Biophys. J.* 59:196a Presented at the Biophysical Society Meeting. San Francisco, CA. 1991.
- 1990 Weaver, F. E., Logothetis, D., Hess, P., Nadal-Ginard, B., and G. Koren. Site Directed Mutagenesis of the S4 Segment of the RCK-1 K<sup>+</sup> Channel. *Circulation (Suppl.)* 82(4) III: 218. Presented at the AHA meeting. Dallas, TX. 1990.
- 1990 WEAVER, F. E., Gaffney, K. J., Dino, J. E., Germain, B. J., and G. Fairbanks. Hydrophobic Anchoring of Maturation Dependent Surface Proteins of Ram Spermatozoa. In: *Fertilization in Mammals*, Bavister, B. D., Cummins, J., and E.R.S. Roldan ed. (Serono Symposia, USA) p. 423; Presented at the Serono Symposium USA, Newton, MA. 1990.

- 1989 WEAVER, F. E., Gaffney, K. J., Dino, J., Lewis, R. G., and G. Fairbanks. Origin and Properties of ESA152, a Maturation Dependent Ram Sperm Surface Antigen. *J. Cell. Biol.* 107:165a; Presented at the American Society for Cell Biology Meeting (ACB) San Francisco, CA. 1989.
- 1982 WEAVER, F. E., and M. Edidin. Organization of Membrane Lipids in Intestinal Epithelial Cells. *J. Cell Biol.* 95:250a Presented at ACB, Baltimore, MD. 1982.

## PRESENTATIONS

- 2000 B. Grant, S. Madigosky, I. Vatnick, and F. E. WEAVER. Designing a Research Centered Biology Curriculum. Presented at Research Link 2000. Hood College, Frederick, MD. October 27-29, 2000.
- 1999 Vatnick, I. WEAVER F., and B. Grant. Research Experiences Within the Curriculum of a One-Semester Course for Non-Science Majors. Poster presented at the F21 poster session during the Project Kaleidoscope National Assembly, University of Maryland College Park, MD. October 1999.
- 1999 WEAVER, F.E. Strengthening the Student-Faculty Research Community at Widener University, Presented at NCUR. University of Rochester, Rochester, NY. April 1999.
- 1997\* K. D. Dugan, J. Tevanian and F. E. WEAVER. *In vitro* Study of Proteins That Interact During Mammalian Development.  $\beta\beta\beta$  Biological Honor Society District Convention, Northeast Region II in Salisbury MD. April 1997  
\*This poster received the second place John C. Johnson Award for Excellence in Student Research.
- 1997 WEAVER, F.E., and C. J. Schmidt. Identification of a Novel Protein That Interacts with Mammalian Groucho-related (GRG) Protein. Presented at the Mid-Atlantic Regional Meeting on Developmental Biology, UMDNJ-SOM, Stratford SOM, Stratford, NJ. October 1997.
- 1997 F. E. WEAVER. "Morphing out", a simple exercise for improvement of spatial skills and written communication in undergraduate developmental biology classes. Presented at the Mid-Atlantic Regional Meeting on Developmental Biology, UMDNJ-SOM; Stratford SOM, Stratford, NJ. October 1997.
- 1996 Boyer, K., Brodtkin, M., Coughlin, D.J., Grant, B. W., Hornberger, K., Madigosky, S., O'Tanyi, T., Morris, R. W., St John, R., WEAVER, F. E. and I. Vatnick. Using Research as Curriculum in an Undergraduate Biology Major. Presented at the Project Kaleidoscope Workshop "Revitalizing Undergraduate Biology," Atlanta, GA. November 1996.

## INTERNAL PRESENTATIONS

- 2007      WEAVER, F. E. Horseshoe Crab Development  
*Invited Lecture* at Widener University's Osher Life Long Learning Institute.  
Exton, PA. March 15, 2007.
- 2003      WEAVER, F.E. What I've Learned About Horseshoe Crabs So Far. Widener  
University Science Division Seminar, Main Campus. November 3, 2003.

### EXTERNAL GRANTS

- 2007      D. J. Coughlin, L. Bastin and F.E WEAVER (Co-Principal Investigators).  
National Science Foundation Research in Undergraduate Institutions Operating  
Grant. Project: Parvalbumin Expression in Fish Skeletal Muscle: Regulation of  
Muscle Relaxation. *Submitted, declined.*
- 2003      M. Brodtkin, I. Vatnick, and F. E. WEAVER. Molecular characterization  
of the acid-induced stress response of the adult Leopard Frog (*Rana*  
*pipiens*). Declining Amphibian Populations Task Force Seed Grant  
\$700.00
- 2001      D. J. Coughlin (Principal Investigator) F. E. WEAVER (Senior  
personnel). National Science Foundation Research in Undergraduate  
Institutions Operating Grant. Project: Molecular Mechanisms for  
Physiological Variations in the Swimming Musculature of Fishes (3 yrs,  
\$140,000)

### STUDENT GRANTS, EXTERNAL (Research advisors in parentheses)

- 2006      Betsy Mathew (F.E.WEAVER, M. Brodtkin, I. Vatnick) *Sigma Xi* Grant in Aid of  
Research. Project: The Effects of Atrazine on Cytochrome P450 Activity in *Rana*  
*pipiens*. \$400
- 2006      Bukola Ojo (F.E.WEAVER, M. Brodtkin, I. Vatnick) *Sigma Xi* Grant in Aid of  
Research. Project: Serum Amyloid P Component: Mediator in the Atrazine  
Induced Immunosuppression of *Rana pipiens*? \$300
- 2003      Jonathon Schiavi (D.J. Coughlin, F.E. WEAVER) *Sigma Xi* Grant in Aid of  
Research. Project: Myosin Light Chain Expression in Rainbow Trout. \$875
- 2001      Nicholas D. Caputo (D.J. Coughlin, F. E. WEAVER) *Sigma Xi* Grant in Aid of  
Research. Project: Longitudinal Variation of Troponin-T Isoforms in Rainbow  
Trout (*Oncorhynchus mykiss*). \$500
- 1998      Karen Stauffer (D.J. Coughlin, F. E. WEAVER) *Sigma Xi* Grant in Aid of  
Research. Project: Developmental Patterns of Myosin Heavy Chain Expression in  
Rainbow Trout (*Oncorhynchus mykiss*). \$944
- 1998      Kruti Patel (F.E. WEAVER, I. Vatnick) *Sigma Xi* Grant in Aid of Research.  
Project: Using DNA Fingerprinting to Determine Monogamy in Pigeons. \$877

1996 Katherine Dugan (F. E. WEAVER) *Beta Beta Beta* Research Foundation Grant. Project: *In Vitro* Study of Proteins that Interact During Mammalian Development. \$380

### INTERNAL GRANTS

2006 I. Vatnick and F. E. WEAVER Widener University Provost's Grant. Project: Does Atrazine Activate Hepatic Cytochrome P450 activity in adult *Rana pipiens*? \$1435

2006 F. E. WEAVER Widener University Faculty Development Options Award. Support for undergraduate research assistants. Project: Subcellular Localization of Lipases Involved in Marek's Disease of Chickens. \$1872

2005 F. E. WEAVER. Widener University Provost's Grant. Project: A Concerted DNA Sequencing Effort Using the (*Limulus polyphemus*) Embryo cDNA Library. \$1246

2005 F. E. WEAVER. Widener University Faculty Development Options Award. Support for undergraduate research assistants. Project: Subcellular Localization of Lipases Involved in Marek's Disease of Chickens. \$700

2004 F. E. WEAVER. Widener University Provost's Grant. Project: Subcellular Localization of Lipases involved in Marek's disease of chickens. \$1410

2004 F. E. WEAVER. Widener University Faculty Development Options Award. Support for undergraduate research assistants. Project: Gene Expression in the Horseshoe Crab (*Limulus polyphemus*). \$1820

2003 M. Brodtkin, I. Vatnick, F. E. WEAVER. Widener University Provost's Grant. Project: Characterization of the Stress Response of *Rana pipiens* Exposed to Mild Acid pH. \$850

2003 F. E. WEAVER. Widener University Provost's Grant. Project: Gene Expression in the Horseshoe Crab (*Limulus polyphemus*) embryo. \$1825

2002 F. E. WEAVER. Supplemental Widener University Faculty Development Award Support for undergraduate research assistants. Project: Genes in Development of the Horseshoe Crab (*Limulus polyphemus*). \$1000

2002 F.E. WEAVER. Supplemental Widener University Faculty Development Award to provide support for sabbatical research. Project: Metabolic Activity, Genetic Variability, and Larval Development of the Atlantic Horseshoe Crab, *Limulus polyphemus*. \$500

2002 F. E. WEAVER. Widener University Provost's Grant. Project: Genes in development of the horseshoe crab (*Limulus polyphemus*). \$800



- 2002 F.E.WEAVER. Widener University Faculty Development Options Award Support for undergraduate research assistants. Project: Genes in development of the horseshoe crab (*Limulus polyphemus*). \$910
- 2002 F. E. WEAVER. Widener University Faculty Development Options Awards to support to provide support for sabbatical research. Project: Metabolic Activity, Genetic Variability, and Larval Development of the Atlantic Horseshoe Crab (*Limulus polyphemus*). \$500
- 2001 F.E. WEAVER. Widener University Faculty Development Options Awards to support research assistants. Project: Genes in Development of the Horseshoe Crab (*Limulus polyphemus*). \$750
- 2001 F. E. WEAVER. Widener University Faculty Provost's Grant. Project: Genes in Development of the Horseshoe Crab (*Limulus polyphemus*). \$1000
- 2000 F. E. WEAVER. Widener University Faculty Provost's Grant. Project: Identification, Characterization and Phylogenetic Comparisons of cDNAs Isolated from Embryos of the Horseshoe Crab (*Limulus polyphemus*). \$1,200
- 2000 F. E. WEAVER. Widener University Faculty Development Options Award. Support for undergraduate research assistants. Project: Identification, Characterization and Phylogenetic Comparisons of cDNAs Isolated from Embryos of the Horseshoe Crab (*Limulus polyphemus*). \$750
- 1999 F. E. WEAVER. Widener University Provost's Grant. Project: Genes Involved in the Embryonic Development of the Horseshoe Crab. \$1500
- 1999 D. J. Coughlin, F. E. WEAVER. Widener University Provost's Grant. Project: Expression Patterns of Myosin Heavy Chain in Rainbow Trout Muscle. \$1710
- 1999 F. E. WEAVER. Widener University Faculty Development Options Award. Support for undergraduate research assistants. Project: Identification of Genes Involved in the Embryonic Development of the Horseshoe Crab (*Limulus polyphemus*). \$780
- 1998 F. E. WEAVER. Widener University Provost's Grant. Project: Localization of the Newly Identified Is40 Protein in Developing Rat Embryos. \$1485
- 1998 F. E. WEAVER. Widener University Faculty Development Options Award. Support for undergraduate research assistants. Project: Identification of Genes Involved in the Embryonic Development of the Horseshoe Crab (*Limulus polyphemus*). \$400
- 1997 F. E. WEAVER. Widener University Provost's Grants. Project: Proteins Involved in Embryonic Development. \$1800

**INTERNAL GRANTS: Pedagogical and Release Time**

- 2004 F. E. WEAVER. Widener Faculty Development Options Award. Three contact hours release time in academic year 2004-2005 to pursue research.
- 2001 F.E. WEAVER. Widener University Sabbatical Award  
Metabolic Activity, Genetic Variability and Larval Development of the Atlantic Horseshoe Crab (*Limulus polyphemus*). Sabbatical Period: Spring 2003, one semester sabbatical with full salary.
- 2000 F.E. WEAVER. Widener University Faculty Development Options Award:  
Release time to develop the new course Biology 261: Principles of Cellular and Molecular Biology.
- 1997 F.E. WEAVER. Widener Faculty Development Options Award: Release time for Curriculum Revision: Fundamentals of Biology (Biology 151).
- 1996 F.E. WEAVER. Widener University Faculty Development Options Award:  
Support for undergraduate research assistants and for banking of overload hours for research. \$1400

**CONSULTING IN AREA OF EXPERTISE**

- 2006 Reviewed seven chapters and a learning portfolio of the new text: Biology: Discovery and Insights for Prentice Hall Publishers. July 2006.
- 2002-2003 Reviewed several Biology textbook chapters for Pearson Education publishers
- 1999 Poster competition judge at the βββ Biological Honor Society Northeast District 2 Regional Convention. Rider University, Lawrenceville, NJ. April 1999.
- 2001 Developed and conducted Hands-on Exploration of the Biology Place session in "Strategies for Successful Classroom Interaction," sponsored by the Benjamin Cummings Publishing Company, presented at Georgia Perimeter College, Dunwoody, GA. March 31, 2001 (*invited*)
- 2000 Developed and conducted Hands-on Exploration of the Biology Place session in "Strategies for Successful Classroom Interaction," sponsored by the Benjamin Cummings Publishing Company, presented at Valencia Community College Orlando, FL. April 15, 2000 (*invited*)
- 1999 Developed and conducted Hands-on Exploration of the Biology Place session in "Strategies for Successful Classroom Interaction," sponsored by the Benjamin Cummings Publishing Company, presented at the University of Richmond, Richmond, VA. November 8, 1999 (*invited*)
- 1997 Developed and conducted Hands-on Exploration of the Biology Place session in "Strategies for Successful Classroom Interaction," sponsored by the Benjamin Cummings Publishing Company, presented at West Chester University, West Chester, PA. November 8, 1997 (*invited*)

1997 Coordinated DNA fingerprinting workshop-Preservation of Endangered Crane Species, for college and pre-college teachers here at Widener University by Fotodyne Incorporated. March 1997

### **EXTERNAL COURSES, WORKSHOPS AND SYMPOSIA ATTENDED**

2006 Middle Atlantic Association of Liberal Arts Chemistry Teachers (MAALACT). Widener University. Participated in one session: State of the Disciplines: Biochemistry, March 2006

2005 PA Ready Campus Training. Penn State-Great Valley Campus, Great Valley, PA. April 8, 2005

2005 UDel Institute for Transforming Undergraduate Education workshop on Problem Based Learning. University of Delaware, Newark DE. January 19-21, 2005.

2004 *Sigma Xi* Symposium. Brought Biology 306 students with me to attend the opening presentation by Dr. Eric Weichaus on cell signaling in development and human disease. St Joseph's University, Philadelphia, PA. April 23, 2004.

2001 Dionex seminar: "Advanced tools for proteomics and pharmaceutical analysis." King of Prussia, PA. May 21, 2001.

2001 Project Kaleidoscope (PKAL) Philadelphia Regional Networks Meeting. Widener University. Feb 17, 2001

2000 Research Link 2000, Hood College, Frederick, MD. October 27-29, 2000

2000 Protein Purification and Analysis Workshop-Analysis of Whale Myoglobin. East Stroudsburg University, East Stroudsburg, PA. March 24-25, 2000

2000 Theories and Practice: A Working conference in Women's Studies: Mid-Atlantic Women's Studies Conference. (Relevant to construction of Biology/WS 188, Biology and the Female) Drew University, Madison NJ. (March 24-25, 2000

1999 PKAL Regional Meeting on Leadership. Towson University, Towson, MD. February 26-27, 1999

1999 Genomics -- How Do We Teach in the Middle of a Revolution? Workshop at the Annual Meeting of the American Society for Cell Biology. Washington, DC. December 10, 1999

1999 PKAL National Assembly. University of Maryland, College Park, MD. October 1999

1997 Association of Biology Laboratory Educators Developmental Biology Teaching Laboratory Workshop. Darling Marine Center, Walpole, ME. June 1997

1997-1998 National Science Foundation sponsored Molecular Visualization of Biomolecules Workshop. University of Massachusetts, Amherst, MA. June 1997 (days one and two) and June 1998 (day three).

- 1997 Collaborative for Excellence in Teacher Preparation (CETP) workshop “Inquiry Based Biology.” Community College of Philadelphia. February 1997
- 1996 PKAL Workshop: “Revitalizing Introductory Biology.” Moorehouse College, Atlanta, GA. November 1996

#### **WIDENER UNIVERSITY SERVICE: UNIVERSITY LEVEL**

- 2005-2007 Chair, Faculty Council Faculty Grants and Awards Committee
- 2005-2007 Faculty Council Executive Committee
- 2004-2006 Faculty Council Faculty Affairs Committee, Arts and Science Representative
- 2004-2006 Arts and Sciences Representative (Faculty Affairs) to Faculty Council
- 2003-2005 Faculty Grants and Awards Committee, University College Representative, (Vice Chair in 2004-2005)
- 2003-2004 Vice Chair, Middle States Self Study Committee on Integrity
- 2001-2002 President's *Ad Hoc* Committee on the Recruitment of Female Undergraduates
- 1996-1998 Faculty Grants and Awards Committee, Arts and Sciences Representative

#### **WIDENER UNIVERSITY SERVICE: ARTS AND SCIENCES LEVEL**

- 2007 Health Professions Advisor Search/Selection Committee
- 2007- Department Chairs Committee (Biochemistry)
- 2004-2006 Faculty Affairs Committee
- 2005 Panel Member, Accepted Students' Day
- 2004 Panel Member, Accepted Students' Day
- 2002-2003 Women's Studies Committee, *Ad Hoc*
- 2002-2003 Promotion and Tenure Committee (Associate Professor representative from Science, also Secretary)
- 1998-2002 Women's Studies Committee, Science Division Representative
- 1999-2001 Curriculum and Planning Committee, At-Large
- 1998 Acting Coordinator of Women's Studies, Fall Semester
- 1995-1998 Women's Studies Committee, Science Division Representative

#### **WIDENER UNIVERSITY SERVICE: SCIENCE DIVISION LEVEL**

- 2002- Science Division Department Chairs (Biochemistry)
- 2005- Widener University Pre-Medical Committee
- 2000-2007 Moderator for Science Sessions on Widener University Student Projects' Days

2005	Mentoring Committee
2004	Recruitment Committee, Biology Department Representative
2001-	Widener University Institutional Animal Use and Care Committee (IACUC), Recorder
2001-2003	Promotion and Tenure Committee, Associate Professor Representative
2000-2001	Curriculum and Planning Committee, Biology Department Representative
1997-1998	Curriculum and Planning Committee, Biology Department Representative

### **WIDENER UNIVERSITY SERVICE: DEPARTMENT LEVEL**

2002-	Chair, Department of Biochemistry
2007	Senior Thesis Advisor for Betsy Mathew (Biochemistry)
2007	Senior Thesis Advisor for Bukola Ojo (Biology)
2007	Senior Thesis Committee Member for Justus Guerirrei (Biology) and Nicholas Lodato (Biology)
2007	Science Accepted Students' Day (Biochemistry and Biology)
2005	Host for the Cell and Molecular Laboratory, set up computer based demonstrations for the grand opening of the new Kirkbride wing on Feb 4, 2005
2001-2002	Co-developed (with Biology faculty) and participated in Biology department workshops for High School Students. Conducted Macromolecules session for this workshop based on a laboratory exercise I developed for Biology 261. (Workshops held 10/21/01 and 2/15/02)
1997-2004	<i>Beta Beta Beta</i> Biological Honor Society Advisor
1998	Secretary
1996-1997	Search Committee (position not filled)
1994-	Widener Days, Biology and/or Biochemistry) representative

### **ADDITIONAL WIDENER UNIVERSITY SERVICE**

2007	Advised Chemical Engineering Senior Project Group Tara Iracki, Frank Rossetti and Frank Vineis with bacterial colony counts for their engineering senior project and Waste-management Education and Research Consortium (WERC- A Consortium for Environmental Education and Technology Development) competition entry, February 2007
2004-2005	University College Advisor on the Exton Campus

- 2002 Master Thesis Committee member for Ms. MaryAnn Seltzer, candidate for a Masters in Chemical Engineering. Thesis title: "Structural Characterization of Collagen During Ball-Milling"
- 2002 Co-Organizer (with Dr. Itzick Vatnick and Widener student Nate Feldman) or "Is Peace Possible?" presented by two representatives from the American Friends of Neve Shalom/Wahat Al-Salam (The "Oasis of Peace"), co-sponsored by Women's Studies. April 24, 2002.
- 2002 Assisted Master's degree candidate Mr. Ashish Mehta (Chemical Engineering) in exploring collagen gels for use in DNA separation.
- 2001 Organized "Is Peace an Option: Terrorism and the US response" with Women's Studies faculty. This session included two outside speakers and a group discussion. October 10, 2001.
- 2000-2003 Faculty Marshall at Commencement
- 2000 "A Gathering of Women" Conference co-sponsored by Widener University Women's Studies and The Pennsylvania NOW education fund. Represented Widener Women's Studies. April 29, 2000.
- 1997, 1999 Guest lecturer: Feminist and multi-cultural perspectives on doing science in WS101 (Women's studies 101)
- 1997-1999 Participant, Freshman Convocation
- 1997- 2004 Member of Honor's Council, representing *Beta Beta Beta*
- 1996- Member of the Pre-Physical Therapy Advisors Committee

### **COMMUNITY SERVICE IN AREA OF EXPERTISE**

- 2007 Owl pellet dissection lab with 6<sup>th</sup> grade students (Ms. Maier's class). Village Charter School of Chester-Upland, Chester Township, PA. January 16, 2007.
- 2003 "Making it Matter" science and engineering badge workshop with Girl Scout Troop 1488 (Pickering Valley Service Unit, Freedom Valley Girl Scout Council) February 10, 2003.
- 2002 Lakeview Elementary Science Night. I helped about 40 elementary school students (and their parents) learn about DNA and enzymes as they extracted DNA from green peas. Ridley Park, PA. November 14, 2002.
- 1999 Hands on Science: Pill bug experiments with Ms. Konert's 3rd grade class at Lionville Elementary School. Downingtown Area School District. Exton, PA. 1999.
- 1997 Horseshoe crab biology: Presentation on horseshoe crab lifestyles and embryonic development, including hands on activities with Mrs. Wittle's 1st grade class at Lionville Elementary School. Downingtown Area School District. Exton, PA 1997.

1996            Advised two Ridley High School students working on science fair project. The students placed third in the teams division of their fair. 1996-1997.

#### **ADDITIONAL COMMUNITY SERVICE**

2006            Fabric art workshop and display of quilts at the Lionville Elementary School Art Fair. Downingtown Area School District. Exton, PA. April 2006.

2003-           Back stage assistance, costume jewellery and fund raising for the Chester County Ballet Company, West Chester, PA.

2004            Martin Luther King Day of Service, Chester PA, January 2004.

2002            Sew Simple badge workshop with Girl Scout Troop 1488 (Pickering Valley Service Unit). November 11, 2002.

2002            Fabric art workshop and display of quilts at the Lionville Elementary School Art Fair. Downingtown Area School District. Exton, PA. April 2002.

2002            Assisted Girl Scout troop 1488 Pickering Valley Service Unit, with hosting 400 girl scouts, their leaders and parents at the annual Fall Gather. November 15, 2002.

2001            Fabric art workshop and display of quilts at the Lionville Elementary School Art Fair. Downingtown Area School District. Exton, PA. April 2001.

1998            Constructed the mascot costume for "Pride the Lion" for the Lionville Elementary School. Downingtown Area School District. Exton, PA. 1998. This costume is still in use.