

## AMY CHENG VOLLMER

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### Education and Training

1983-1985 Post-doctoral fellow in Immunology, Stanford University School of Medicine,  
Division of Immunology, Stanford, CA  
1983 Ph.D. in Biochemistry, University of Illinois, Urbana – Champaign  
1977 B.A. in Biochemistry, Rice University, *cum laude*

### Positions Held and Teaching Experience

2017 - present Director, Swarthmore Summer Scholars Program, Swarthmore College  
2016 - present\* *Isaac H. Clothier, Jr.* Professor of Biology, Swarthmore College  
2004 – 2016\* Professor of Biology, Swarthmore College  
2013 – 2016\* Chair of Biology, Swarthmore College  
2009 – 2010 Visiting Professor (part time), Rice University, Institute for Bioscience and  
Bioengineering; Department of Biochemistry and Cell Biology  
2005 – 2006 Visiting Scientist, University of Pennsylvania (sabbatical in Mark Goulian's lab)  
2003 - 2005 Chair of Biology, Swarthmore College  
1997 – 1998 Visiting Scientist, E. I. du Pont Company, Wilmington DE (sabbatical in Bob LaRossa's lab)  
1996 – 2004\* Associate Professor of Biology, Swarthmore College  
1993 - 1994 Visiting Scientist, E. I. du Pont Company, Wilmington DE (sabbatical in Bob LaRossa's lab)  
1992 – 1996\* Assistant Professor of Biology, Swarthmore College

\*Teaching courses and seminars with weekly lab sections: *Cellular and Molecular Biology, Microbiology, Microbial Pathogenesis & the Immune Response, Bioethics & Biotechnology; honors seminar in Microbial Processes & Biotechnology, and Swarthmore Life Long Studies course: Microbiology: Why we get sick...or don't*

1989 – 1992 Visiting Assistant Professor of Biology, Swarthmore College  
*Teaching courses and seminars with weekly lab sections: Cellular and Molecular Biology, Microbiology, Developmental Biology; honors seminars in Microbial Adaptation & Development and Cellular Basis for Transformation*  
1985 - 1989 Assistant Professor of Biology, Mills College  
*Teaching courses with weekly lab sections: Immunology, Developmental Biology, Cell Biology, Neurobiology, and General Biology*  
1988 Visiting Lecturer, University of California, Berkeley, Psychobiology Program  
*Teaching: Seminar in Genetics and Cancer*  
1977 – 1980 Graduate Teaching Assistant, University of Illinois, School of Chemical Sciences  
*Teaching: Biochemistry laboratory course*  
1976 – 1977 Undergraduate Teaching Assistant, Rice University, Chemistry Department  
*Teaching: Introductory chemistry laboratory*

### Research Experience

#### At Swarthmore

2014 – 2016 Co-investigator (with Alison Holliday, Department of Chemistry at Swarthmore and now at Moravian College): *Isolation and characterization of fungicide degrading bacteria: the case for chiral degradation*  
2007 - present Co-investigator (with Sara Hiebert Burch Department of Biology)

- Correlating dietary fat intake and other metabolite factors of rodents and birds with intestinal microbiota profiles*
- 2006 – 2009 Co-investigator (with Stephen Miller, Department of Chemistry and Biochemistry)  
*Investigation of the structure/function of universal stress protein family members*
- 2004 - present Co-investigator (with Jose-Luis Machado, Department of Biology, Swarthmore):  
*Identification of soil mycorrhizae in the Crum Woods*
- 2003 - 2009 Co-investigator (with Julie Hagelin, formerly of the Department of Biology):  
*Identification of bacterial associated with bird feathers and scent*
- 2002 - 2003 Co-investigator (with Andrea Stout, formerly of the Department of Physics and Astronomy): *Measuring the amount of stress experience by bacteria when captured with laser tweezers.*
- 1994 – 2009 Co-investigator (with E. C. Everbach, Department of Engineering, Swarthmore):  
*Investigation of the physical, chemical and biological effects of ultrasound on bio-engineered luminescent bacteria*
- 1993 HHMI Collaborator (with J. Voet, Department of Chemistry, Swarthmore):  
*Screening an Arabidopsis cDNA library for clones bearing membrane transport proteins*
- 1989 - present Principal Investigator, Swarthmore College, Department of Biology:  
*Bacterial responses to stress and environmental challenge in the enteric bacterium, Escherichia coli (current collaborator, 2017 - present, Steven Bark, University of Houston)*

## Research Experience

### Elsewhere

- 2005 – 2006 Sabbatical Leave Research: Visiting Scientist, University of Pennsylvania: Department of Physics and Astronomy (Laboratory of Mark Goulian)  
*Investigations of microbial stress response using single-cell fluorescent imaging.*
- 2003 – 2005 Consultant, Ashland Specialty Chemical, Drew Industrial (Dr. Winston Goh):  
*Ultrasound and bacterial survival*
- 1997 – 1998 Consultant, Southeastern Company, Madison, AL (Richard Gregg II, president):  
*Ultrasound and bacterial survival*
- 1997 – 1998 Sabbatical Leave Research: Visiting Scientist, E.I. DuPont de Nemours & Co.: Central Research and Development, Biochemical Sciences and Engineering (Laboratory of R.A. LaRossa). *The application of microbial genetics to the development of high through-put screens for agrichemicals*
- 1993 – 1994 Sabbatical Leave Research: Visiting Scientist, E.I. DuPont de Nemours & Co.: Central Research and Development, Environmental Microbiology (Laboratory of R.A. LaRossa). *The application of microbial genetics to environmental microbiology, particularly exploiting the stress regulons of Escherichia coli*
- 1986 – 1987 Visiting Summer Postdoctoral Research Scientist, Stanford University: Department of Biochemistry (Laboratory of D. Kaiser). *Physiological and genetic studies in Myxococcus xanthus*
- 1985 – 1989 Principal Investigator, Mills College, Department of Biology: *Physiology and gene expression in the developmental life cycle of the soil bacterium, Myxococcus xanthus*
- 1983 – 1985 Postdoctoral Fellow, Stanford University, Department of Medicine: Division of Immunology (Laboratory of J.R. Parnes). *Molecular cloning and characterization of T cell specific differentiation antigens in mouse and human immune systems*
- 1977 – 1983 NIH Predoctoral Fellow in Cell Biology/Graduate Research Assistant: University of Illinois, Urbana - Champaign, Department of Biochemistry (Laboratory of R. L. Switzer). *Genetic organization and regulation of the pyrimidine gene cluster*

- in the sporulating bacterium, Bacillus subtilis*
- 1976 – 1977 Undergraduate Research Assistant, Rice University: Department of Biochemistry (Laboratory of the late F. B. Rudolph). *Synthesis and characterization of possible metabolic inhibitors of the adenylosuccinate synthetases from rat liver and Escherichia coli*
- 1975 - 1977 Summer Research Intern, Midwest Research Institute: Analytical Chemistry Division (Laboratory of W. Hagerty). *Quantitative analysis of the metabolic fate of experimental pharmaceuticals from the National Cancer Institute*
- 1974 Summer Research Intern, University of Missouri at Kansas City: Department of Chemistry (Laboratory of K. L. Cheng, no relation). *Optimization of conditions for ion exchange separation of intermediates in organic synthetic reactions*

### Fellowships, Grants and Awards/Recognition

#### Research grants

- |  |   |        |
|--|---|--------|
| 2016 - 2017  | Faculty sabbatical support, Swarthmore College  |        |
| 2014 - 2016  | Research Corporation Multi-Investigator Cottrell College Science Award<br>Co-PI with Alison Holiday, Department of Chem/Biochem   | \$100K |
| 2009 – 2010  | Merck AAAS Collaborative Research Grant, Biology and Chemistry<br>Co-PI with Sara Hiebert Burch, Kathleen Howard and Stephen Miller   | \$60K  |
| 2006 – 2007; 2009 – 2010   | Mellon Foundation   | \$3K   |
| 2005 – 2006  | Swarthmore Lang Faculty Fellowship, sabbatical support  |        |
| 2005 – 2006  | Pennsylvania Department of Health   | \$8K   |
| 2012, 2009, 2008, 2007, 2005 (2), 2004, 2002, 2001 (2), 2000 (2), 1997 (2), 1996, 1995 | Undergraduate Research Fellow Mentor, American Society for Microbiology   | \$56K  |
| 2005 - 2013  | Organizer, Regional Microbiology Educators' Network<br>Funded by ASM and HHMI   | \$6K   |
| 1999   | Mentor, Undergraduate Research Fellow, Merck-AAAS   | \$4K   |
| 1998 – 2000  | DuPont Company Aid to Education Research Grant:   | \$10K  |
| 1996 – 1998  | National Science Foundation Grant, bioengineering:  | \$25K  |
| 1995 – 1997  | Integrated Math and Science Teaching Faculty Support,<br>Pennsylvania Commonwealth Partnership  | \$15K  |
| 1994 - 2016  | Co-program director for continuous support to Swarthmore College<br>from HHMI for undergraduate research and outreach<br>(rather than submitting an individual faculty research proposal,<br>substantially contributed to writing and administering 6 awards<br>to the College) | \$6.5M |
| 1993 – 1994  | Swarthmore Lang Faculty Fellowship, sabbatical support  |        |
| 1992   | Howard Hughes Medical Institute Faculty Research Funds:   | \$5K   |
| 1989 -   | Swarthmore College Faculty Research Grant:  | \$35K  |
| 1989 – 1992  | Research Corporation Cottrell Science Grant:  | \$50K  |
| 1989 – 1990  | Monsanto Corporation Research Grant:  | \$10K  |
| 1987 – 1989  | National Science Foundation Research Grant:   | \$10K  |
| 1985 - 1989  | Mills College Faculty Development Awards:   | \$5K   |
| 1985   | Mills College, Heller Foundation Grant:   | \$50K  |
| 1984 – 1985  | Stanford Medical School Cancer Biology Postdoctoral Fellowship  |        |
| 1983 – 1984  | Stanford Medical School Dean's Postdoctoral Fellowship  |        |
| 1979 – 1983  | National Institutes of Health Predoctoral Fellowship  |        |

### **Professional awards and recognition**

- 2018 Fellow, American Academy of Microbiology
- 2018 Interviewed and featured in *Kazoo Magazine: The Magnificent Mistakes Issue*
- 2017 – 2020 American Society for Microbiology, inaugural Board of Directors, elected by Council on Microbial Science members
- 2017 – 2019 American Society for Microbiology, Council on Microbial Sciences, Councilor-at-large, elected nationally
- 2017 – 2018 Phi Beta Kappa Visiting Scholar (8 multi-day, multiple lecture, campus visits)
- 2017 Douglas Eveleigh Lecturer, Microbial Diversity Course, Woods Hole, MA
- 2015 Interviewed on People Behind the Science  
<http://www.peoplebehindthescience.com/dr-amy-vollmer/>
- 2014 - 2015 National Academies Education Fellow in Science
- 2013 Inaugural Luhrs Faculty Fellow, Center for Innovation and Leadership, Swarthmore College
- 2011 – 2013 ASM Distinguished Lecturer
- 2007 - 2017 President, Waksman Foundation for Microbiology
- 2009 - 2010 Lindback Teaching Fellowship, Swarthmore College (sabbatical funding)
- 2007 - 2009 Chair-elect, chair, advisor, General Microbiology Division, ASM
- 2006 Carski Foundation Distinguished Undergraduate Teaching Award (awarded by the ASM's American Academy for Microbiology)
- 2003 – 2006 Member, Nominating Committee - American Academy of Microbiology's Founders Distinguished Service Award (appointed for a 3-year term):
- 2002 Who's Who Among America's Teachers, 7<sup>th</sup> edition, nominated by C. Cardemil '01
- 2002 ASM Eastern Pennsylvania Branch's Annual Education Speaker
- 2001 – 2017 Trustee, Waksman Foundation for Microbiology
- 2001 Swarthmore Asian Organization: Certificate of Recognition (nominated by students)
- 2000 Member, Undergraduate Research Committee of the American Society for Microbiology's Education Board: ASM Board of Education and Training, which received the 2000 Presidential Award for Excellence in Science, Mathematics and Engineering Mentoring
- 1994 DuPont Company Research Accomplishment Award
- 1979 Outstanding Teaching Assistant Award, School of Chemical Sciences, Univ. of Illinois
- 1973 – 1974 Arthur B. Cohn Scholarship, Rice University

### **Professional Societies**

- 2005 - present American Association of University Women
- 1990 - present American Society for Microbiology
- 1990 - present NEMPET (North East Microbial Physiology, Ecology and Taxonomy)
- 1983 - present Sigma Xi

### **Additional Professional Training**

- 2017 Biotrac Next Generation Sequencing (NGS) workshop, Bethesda, MD
- 2014 National Academy of Sciences Summer Institute on Undergraduate Education in Science; Harvard University, Cambridge, MA
- 2013 Genome Consortium for Active Teaching (GCAT) Synthetic Biology Workshop Janelia Farm, MD (HHMI)
- 2003 Genome Consortium for Active Teaching (GCAT) Microarray analysis Dickinson University, Carlisle, PA
- 1998 Center for Advanced Training in Cell and Molecular Biology - Hybridization

Catholic University of America, Washington DE

**Publications - Books, articles, invited chapters and reviews**

(\* indicates undergraduate student co-authors)

- Vollmer, AC and Bark, S. 2018. Twenty-five years of Investigating the Universal Stress Protein: Function, structure and applications. *Advances in Applied Microbiology*. 102: 1-36.
- Vollmer, AC. 2016. Adopting a Pathogen. (edited by M. Schaechter), posted on September 5, 2016. <http://schaechter.asmblog.org/schaechter/2016/09/adopting-a-pathogen.html>
- Vollmer, AC, Balke, V, Frantz, C and TE Hanson. 2016. Teaching at Primarily Undergraduate Institutions: Entering the Profession. Microbe Mentor column in Microbe American Society for Microbiology: Washington, DC. <https://www.asm.org/index.php/careers-blog/item/99-teaching-at-primarily-undergraduate-institutions-a-guide-to-entering-the-profession>.
- Vollmer, AC. 2016. "Hello Again, Metabolism!" In *Small Things Considered: In the Company of Microbes: Ten Years of Small Things Considered* (edited by M. Schaechter). ASM Press: Washington, DC.
- Vollmer, AC. 2012. Seeing Biology through the Eyes of a Visually Impaired Student. (Edited by M. Schaechter and M. Youle), posted on July 26, 2012. <http://schaechter.asmblog.org/schaechter/2012/07/seeing-biology-through-the-eyes-of-visually-impaired-students.html>
- Liu, T\*, Hougen, H\*, Vollmer, AC, Hiebert, SM. 2012. "Gut Bacteria Profiles of *Mus musculus* at the Phylum and Family Levels are Influenced by Saturation of Dietary Fatty Acids. *Anaerobe* 18 (3): 331-337.
- Cardemil, CV\*, Smulski, DR, LaRossa, R A, and AC Vollmer. 2010. "Bioluminescent *Escherichia coli* Strains for the Quantitative Detection of Phosphate and Ammonia in Coastal and Suburban Watersheds" *DNA and Cell Biology*, 29(9): 519-31.
- Vollmer, A.C. 2010. Making it Personal. In *Small Things Considered* (Edited by M. Schaechter and M. Youle), posted on September 9, 2010. <http://schaechter.asmblog.org/schaechter/2010/09/making-it-personal.html>
- Vollmer, A.C. 2010. Hello Again, Metabolism! In *Small Things Considered* (Edited by M. Schaechter and M. Youle), posted on July 22, 2010. <http://schaechter.asmblog.org/schaechter/2010/07/hello-again-metabolism.html>
- Vollmer, A.C. 2010. Taking Risks: ASMCUE Musings. In *Small Things Considered* (Edited by M. Schaechter and M. Youle), posted on June 17, 2010. <http://schaechter.asmblog.org/schaechter/2010/06/taking-risks-asmcue-musings.html>
- Vollmer, A.C. 2009. Teaching Resources, Microbiology, in *The Encyclopedia of Microbiology*, 3rd Edition, edited by Moselio Schaechter, Elsevier: London.
- Vollmer, A.C., 2007. Establishment and maintenance of an ASM student chapter. *Microbe* 2(8): 405.
- Shawkey M.D., Hussain M. J.\*, Strong A.L.\*, Hagelin J.C., Vollmer A.C. and Hill G.E. 2006. Use of culture-independent methods to compare bacterial assemblages on feathers of crested and least Auklets (*Aethia cristatella* and *Aethia pusilla*) with those of passerines. *Waterbirds* 29 (4): 507-511.
- Vollmer, A.C. 2006. It's Not What We Say. *Microbe* 1(11): 516-520.
- Vollmer, A.C. 2006. Jump-Starting Your Brain in the Morning. In *Strategies for Success* (C. Johnson, Ed.). No. 45, pp. 1-2. Benjamin Cummins: San Francisco.
- Vollmer, A.C, and S.J. Vollmer. 2005. Book review of: The Microbial Models of Molecular Biology: From Genes to Genomes, by Roland H. Davis. *Bull. Hist. Med.* 79: 358-360.
- Vollmer, A.C. 2005. Connecting Branches to Student Activities. *ASM News*. 71:90-91.
- Vollmer, A.C. 2005. Networking: A Lifeline for Faculty at Small Colleges. In *Focus on Microbiology Education*, American Society for Microbiology Press, Washington, D.C., Vol 11 (2): 4-5.

- Vollmer, A. C. and T. K. Van Dyk. 2004. Stress Responsive Bacteria: Biosensors as Environmental Monitors. In *Advances in Microbial Physiology* (Poole, R. K. ed.) Vol. 49: 131-174. Academic Press: London.
- Vollmer, A.C. 2004. Resource Review: Bacterial Genetics. *Develop. Cell* 6: 1-3.
- Vollmer, A.C. 2004. Teaching students to write short documents for diverse audiences. In *Great Ideas in Teaching Microbiology* (Johnson, C. ed.) Vol. 1: p7-8. Benjamin Cummins: San Francisco.
- Vollmer, A.C. Critical thinking questions for each of all 22 chapters. In *Microbiology*, 5<sup>th</sup> edition 2002 (Prescott, L.M., Harley, J.P. and Klein, D.A.) McGraw Hill: Boston.
- Smulski, D.R., Huan, L.L., McCluskey, M.P., Gladnick-Reeve, M., Vollmer, A.C., Van Dyk, T.K. and R.A. LaRossa. 2001. A Combined, Functional Genomic-Biochemical Approach to Intermediary Metabolism: The Interaction of Acivicin with *Escherichia coli*, *J. Bacteriol.* 183: 3353-3364. <<http://jb.asm.org/cgi/reprint/183/11/3353.pdf>>
- Wei, Y., Vollmer, A.C. and LaRossa, R.A. 2001. In Vivo Titration of Mitomycin C Action by the Presence of Four *Escherichia coli* Genomic Regions on Multicopy Plasmids, *J. Bacteriol.* 183: 2259--2264. <<http://jb.asm.org/cgi/reprint/183/7/2259.pdf>>
- Benson, S. P. and A. C. Vollmer. 2000. *Microbiology Education: A New Venue for Scholarship in Microbiology Education*. In *Focus on Microbiology Education*, Spring 2000. American Society for Microbiology Press, Washington, D.C.
- Vollmer, A.C. 2000. Passing the Torch: In Love with My Job. In *Many Faces, Many Microbes* (R. Atlas, ed.) American Society for Microbiology Press, Washington, DC. pp 293-298, also reprinted in 2000 *ASM News* 66: 459-462. <<http://206.64.120.149/asmnews/aug00/images/f1.pdf>>
- Vollmer, A. C. Plasmids, In *Microsoft Encarta Encyclopedia*, 2000 Deluxe edition. (Sarah De Weerd, Life Science Editor, Microsoft)
- Davidov, Y., Smulski, D., Van Dyk, T. K., Vollmer, A. C., Elsemore, D. A. LaRossa, R. A. and S. Belkin. 2000. Improved bacterial SOS promoter::lux fusions for genotoxicity detection. *Mutation Research* 466: 97-107.
- Davidov, Y., D. R. Smulski, T. K. Van Dyk, A. C. Vollmer, R. A. LaRossa and S. Belkin. 1999. Genotoxicity detection by bacterial strains harboring *recA'*::lux fusions. In: *Bioluminescence and Chemiluminescence: Perspectives for the 21st Century*. A. Roda, M. Pazzagli, L. J. Kricka and P. E. Stanley, eds. John Wiley & Sons, Chichester. pp. 597-600.
- Vollmer, A.C., 1999. Mentoring Undergraduate Students in the Laboratory. In *Focus on Microbiology Education*, Spring 1999. American Society for Microbiology Press, Washington, D.C.
- Vollmer, A.C. 1998. Visualization of Bioluminescence. In *Methods in Molecular Biology: Bioluminescence Methods and Protocols*. (LaRossa, R. A., ed.). Humana Press, Totowa, NJ.
- Vollmer, A.C. 1998. Genotoxic Sensors. In *Methods in Molecular Biology: Bioluminescence Methods and Protocols*. (LaRossa, R. A., ed.). Humana Press, Totowa, NJ.
- Vollmer, A.C., Kwayke, S.\*, Halpern, M.\* and Everbach, E. C. 1998. Use of Bioluminescent *Escherichia coli* to Detect Damage Due to Ultrasound, *Appl. Environ. Microbiol.* 64(10): 3927-3931. <<http://aem.asm.org/cgi/reprint/64/10/3927.pdf>>
- Belkin, S., Smulski, D.R., Dadon, S., Vollmer, A.C., Van Dyk, T.K., and LaRossa, R.A. 1997. A Panel of Stress-Responsive Luminous Bacteria for Toxicity Detection. *Water Research*, 31(12): 3009-3016.
- Vollmer, A.C., Belkin, S., Smulski, D.R., Van Dyk, T.K. and LaRossa, R.A. 1997. Detection of DNA damage by use of *Escherichia coli* carrying *recA'*::lux, *uvrA'*::lux or *alkA'*::lux reporter plasmids, *Appl. Environ. Microbiol.* 63(7), 2566-2571. <<http://aem.asm.org/cgi/reprint/63/7/2566.pdf>>
- Belkin, S., Van Dyk, T.K., Vollmer, A.C., Smulski, D.R., Reed, T.R., and LaRossa, R.A. 1996. Monitoring Sub-Toxic Environmental Hazards by Stress Responsive Luminous Bacteria,

- Environ. Tox. and Water Qual.* 11(3):179-185.
- Belkin, S., D.R. Smulski, A.C. Vollmer, T.K. Van Dyk and R.A. LaRossa. 1996. Oxidative stress detection with *Escherichia coli* harboring a *katG':lux* fusion. *Appl. Environ. Microbiol.* 62: 2252-2256. <<http://aem.asm.org/cgi/reprint/62//2252.pdf>>
- Van Dyk, T.K., Smulski, D.R., Reed, T.R., Belkin, S., Vollmer, A.C. and LaRossa, R.A. 1995. Similar Response to Adverse Environmental Conditions by *Escherichia coli* Strains Carrying *uspA':lux* or *grpE':lux* Genetic Fusions, *Appl. Environ. Microbiol.* 61: 4124-4127. <<http://aem.asm.org/cgi/reprint/61/11/4124.pdf>>
- Van Dyk, T.K., Reed, T.R., Vollmer, A.C. and LaRossa, R.A. 1995. Synergistic Induction of the Heat Shock Response in *Escherichia coli* by Simultaneous Treatment with Chemical Inducers, *J. Bacteriol.* 177: 6001-6004. <<http://jb.asm.org/cgi/reprint/177/20/6001.pdf>>
- Van Dyk, T.K., Belkin, S., Vollmer, A.C., Smulski, D.R., Reed, T.R. and LaRossa, R.A. 1994. Fusions of *Vibrio fischeri lux* Genes to *Escherichia coli* Stress Promoters: Detection of Environmental Stress. In *Bioluminescence and Chemiluminescence: Fundamentals and Applied Aspects.* (Campbell, A.K., Kricka, L.J. and Stanley, P.E., eds.) Chichester, UK: John Wiley & Sons Ltd, pp. 147-150.
- Belkin, S., Vollmer, A.C., Van Dyk, T.K., Smulski, D.R., Reed, T.R. and LaRossa, R.A. 1994. Oxidative and DNA Damaging Agents Induce Luminescence in *E. coli* Harboring *lux* Fusions to Stress Promoters. In *Bioluminescence and Chemiluminescence: Fundamentals and Applied Aspects.* (Campbell, A.K., Kricka, L.J. and Stanley, P.E., eds.) Chichester, UK: John Wiley & Sons Ltd, pp. 509-512.
- Sukhatme, V.P., Vollmer, A.C., Erickson, E., Isobe, M., Croce, C. and Parnes, J.R. 1985. Gene for the Human T Cell Differentiation Antigen Leu-2/T8 Is Closely Linked to the Kappa Light Chain Locus on Chromosome 2. *J. Exp. Med.* 161: 429-434.
- Zamoyska, R., Vollmer, A.C., Sizer, K.C., Liaw, C.W. and Parnes, J.R. 1985. Two Lyt-2 Polypeptides Arise from a Single Gene by Alternative Splicing Patterns of mRNA. *Cell* 43: 153-163.
- Sukhatme, V.P., Sizer, K.C., Vollmer, A.C., Hunkapiller, T. and Parnes, J.R. 1985. The T Cell Differentiation Antigen Leu 2/T8 is Homologous to Immunoglobulin. *Cell* 40: 591-597.

**Peer-reviewed Abstracts (\* indicates undergraduate student co-authors and presenters)**

- Vollmer, A.C. and I. Erickson\*. 2018. "Changes in Hummingbird Gut Microbiomes in Relation to Migratory Fattening Cycles." Abstr 7381, to be presented at Microbe 2018, the annual meeting of the American Society for Microbiology, June 7 – 11, Atlanta, GA.
- Dong, M.\* and A. C. Vollmer. 2018. "Characterization of Mutant Universal Stress Protein A in *Escherichia coli*." Abstr 4845, to be presented at Microbe 2018, the annual meeting of the American Society for Microbiology, June 7 – 11, Atlanta, GA.
- Fakoya B.\*, Washburn R., Vollmer A.C., Gottesman M. 2016. "Leaderless phage  $\lambda$  CI activity requires the coupling of transcription and translation through NusG and NusE in *E. coli*." Presented at: 2016 Molecular Genetics of Bacteria and Phages Meeting; August 2016; Madison, WI.
- Eppley, L.\*, Morris, R.\*. Burson, R.\*, Mathay, M.\*, Vollmer, A. and A. Holliday. 2015. "Characterization and Analysis of Soil Bacterial Degradation of the Triazole Fungicide Myclobutanil", Abstr Q-1295, In *Abstracts of the 115th General Meeting of the American Society for Microbiology*, ASM: Washington, D.C
- Burson, R.\*, Eppley, L.\* and A. Vollmer. 2014. "Isolation of soil bacteria capable of degrading the triazole fungicide myclobutanil." Presented at the 11<sup>th</sup> annual regional Microbiology Educators Research Conference at Penn State, Berks campus, Reading, PA
- Kogekar, N\*., Holliday, A., and A. Vollmer. 2013. Isolation, Enrichment, and Characterization of Soil Bacteria Capable of Metabolizing the Triazole Fungicide Epoxiconazole. In *Abstracts of the 113th General Meeting of the American Society for Microbiology*, ASM: Washington, D.C.

- Spady, E.\* and A.C. Vollmer. The Effect of Universal Stress Protein A Phosphorylation on Heat Shock Response in *Escherichia coli*. In *Abstracts of the 113th General Meeting of the American Society for Microbiology*, ASM: Washington, D.C.
- Morris, R.\*, Parker, A\*., Goh, T.\*, Kazakar, S.\*, Samra J.\* and A. Vollmer. 2012. "Universal Stress Protein from *Escherichia coli*: Characterization of 38 alleles of the *uspA* gene" at ABRCMS meeting in San Jose, CA.
- Parker, A.\*, Goh, T.\*, Kazaklar, S.\*, Samra, J.,\* Morris, R\*. and A. Vollmer. 2012. "Universal Stress Protein from *Escherichia coli*: Production of a green pigment from *uspA* alleles carrying a *lux* reporter plasmid" at ABRCMS meeting in San Jose, CA. (Best poster award for A. Parker)
- B. K. McIntosh, D. P. Renfro, R. Lovering, S. Ades, R. Britton, I. Friedberg, L. Hughes, S. Trevino, A. C. Vollmer, F. McCarthy, J. Willey, B. Pruess, S. Perdue, J. Kowalski, T. Paustian<sup>1</sup>, D. Migl, D. A. Siegele, A. E. Zweifel, J. C. Hu. 2012. CACAO: Competitive Annotation of Gene Function. Oral abstract session 129. In *Abstracts of the 112th General Meeting of the American Society for Microbiology*, ASM: Washington, D.C.
- Liu, T.\*, Hougen, H.\*, Hiebert, S.M., and A.C. Vollmer. 2010. *Bacteroidetes/Firmicutes* Ratios in *Mus musculus* are Affected by Saturation of Dietary Fatty Acids. I-252. In *Abstracts of the 110th General Meeting of the American Society for Microbiology*, ASM: Washington, D.C.
- Weiser, N.\*, Lascano, D.\* and A. Vollmer. 2010. Investigating the effects of mutations in the gene encoding the *Escherichia coli* Universal Stress Protein A. Abstr. I-3070 In *Abstracts of the 110th General Meeting of the American Society for Microbiology*, ASM: Washington, D.C.
- Barton, S.\*, E. C. Everbach, and A. C. Vollmer. 2009. Ultrasonic destruction of microbial biofilms revealed by confocal microscopy. Abstr Q-289 In *Abstracts of the 109th General Meeting of the American Society for Microbiology*, ASM: Washington, D.C.
- Benjamin, C.\*, Zee, B.\*, Hiebert Burch, S. and A. C. Vollmer. 2009. Gut microbial profiles: Investigating the influence of dietary fatty acid consumption on *Phodopus sungorus* colonic microbiota using 16S rRNA gene sequence analysis. Abstr I-037 In *Abstracts of the 109th General Meeting of the American Society for Microbiology*, ASM: Washington, D.C.
- Bice, T.\*, Gilchrist-Scott, D.\*, Hiebert Burch, S., and A. C. Vollmer 2009. Environmentally dependent differential fatty acid consumption does not significantly alter *Mus musculus* colonic microbial profiles. Abstr I-036 In *Abstracts of the 109th General Meeting of the American Society for Microbiology*, ASM: Washington, D.C.
- Handler, J.S.\* and A. C. Vollmer. 2009. Investigation of the function of *Escherichia coli uspC* in motility and stress response. Abstr I-053 In *Abstracts of the 109th General Meeting of the American Society for Microbiology*, ASM: Washington, D.C.
- Benjamin, C.\*, Zee, B.\*, Hiebert Burch, S. and A. C. Vollmer. 2008. Gut microbial profiles: Influence of different fatty acid consumption on *Phodopus sungorus* colonic microbiota by 16S rRNA gene sequence analysis. Presented at ABRCMS in Orlando, FL.
- Krasity, B.\*, Yoon, D\*., and A. C. Vollmer 2008. Purification and Characterization of *Escherichia coli* Universal Stress Proteins. Abstr I-56 In *Abstracts of the 108th General Meeting of the American Society for Microbiology*. ASM: Washington, D.C.
- Barash, N. R.\*, Condon, K. A.\*, and A. C. Vollmer. 2008. Probing the Function of *Escherichia coli* Universal Stress Protein A Using Site Specific Mutagenesis and Synthetic Lethality. Abstr I-57 In *Abstracts of the 108th General Meeting of the American Society for Microbiology*. ASM: Washington, D.C.
- Anguah, K.\*, Velez, R.\*, Vollmer, A. C. and E. Carr Everbach. 2007. Effect of 810 kHz ultrasound on bacterial biofilms. *J. Acoust. Soc. Am.* 122(5):3052.
- Bolles, M.\*, Buffie, C.\*, Glick, A.\*, Willman, A.\* and Vollmer, AC. 2006. Universal stress proteins in



- Escherichia coli*: suppressor and synthetic lethal screens. *Gordon Conference on Microbial Stress Response*.
- Buffie, C.G.\* and Vollmer, A.C. 2006. Regulation of Oxidative and Nitrogen Starvation Stress Responses by the Universal Stress Proteins A and C in *Escherichia coli*. abstr I-14. In *Abstracts of the 106th General Meeting of the American Society for Microbiology*. ASM: Washington, D.C.
- Glick, A.\* and Vollmer, A.C. 2006. Characterization of the Universal Stress Protein A Paralog *uspE* of *Escherichia coli*: Survival and Stress Response. Abstr I-23 In *Abstracts of the 106th General Meeting of the American Society for Microbiology*. ASM: Washington, D.C.
- Bolles, M.\* and Vollmer, A.C. 2006. Biofilm formation as a selectable phenotype for functionality of Universal stress protein A in *Escherichia coli*. Abstr I-16 In *Abstracts of the 106th General Meeting of the American Society for Microbiology*. ASM: Washington, D.C.
- Esquejo, R.\*, Strong, A.\*, Losq, S.\*, Asher, V.\*, Kett, L.,\* Machado, J.-L., Vollmer, A.C. 2005. Identification of Mycorrhizal Fungi Associated with the Roots of Invasive Norway Maple and Native Sugar Maple in Swarthmore, PA. Presented at the Northeast Ecology and Evolution Conference at Penn State University.
- Kishor, A.\*, Everbach, E.C. and Vollmer, A.C. 2005. Determination of the effects of treatment by high frequency ultrasound on several bacterial species in liquid culture, abstr Q-135. In *Abstracts of the 105th General Meeting of the American Society for Microbiology*. ASM: Washington, D.C.
- Hussain, M.J.\*, Strong, A.\*, Hagelin, J., Hill, G., Shawkey, M., Roberts, S., Vollmer, A.C. 2005. Identification of bacterial species associated with the tangerine-scent of an Artic Seabird, abstr N-123. In *Abstracts of the 105th General Meeting of the American Society for Microbiology*. ASM: Washington, D.C.
- Gaskell, J.C. \*, Stout, A.L. and A.C. Vollmer. 2003. Measurement of oxidative stress response as reported by a *katG':luxCDABE* fusion of *Escherichia coli* subjected to optical traps, abstr. I-31. In *Abstracts of the 103rd General Meeting of the American Society for Microbiology*. ASM: Washington, D.C. *Recognized by a Student Travel Award to JCG from the ASM*.
- McFalls. J.M.\*, Marshall, K.L.\* and A. C. Vollmer. 2003. The Regulation of the *Escherichia coli uspA* Gene and Its Product: Effects of Transcriptional Regulators and the Role of Phosphorylation, abstr. I-32. In *Abstracts of the 103rd General Meeting of the American Society for Microbiology*. ASM: Washington, D.C.
- So, M. J.\*, Everbach, E. C. and A. C. Vollmer. 2003. Reduction of *Escherichia coli* viability through ultrasound exposure from a novel apparatus, abstr. Q-282. In *Abstracts of the 103rd General Meeting of the American Society for Microbiology*. ASM: Washington, D.C.
- Vollmer, AC 2003. Scientists Who Publish Education Research: How Does It Impact Their Careers? 2003 Learning to Change Conference - American Association for Higher Education, Washington, D.C.
- Alderete, A.P.\*, Valentine, L.E.\*, Willman, A.M.\*, Kim, H.\* and A. C. Vollmer. 2001. The Universal Stress Protein of *E. coli*: Its Evolutionary Conservation and Influence in Regulating Stress Responses and Biofilm Formation, abstr. I-17. In *Abstracts of the 101st General Meeting of the American Society for Microbiology*. ASM: Washington, D.C.
- Cardemil, C.V.\*, and A.C. Vollmer. 2001. Development and Use of Bioluminescent Biosensors in *Escherichia coli* for the Quantitative Detection of Phosphate in Coastal and Suburban Watersheds, abstr. I-16. In *Abstracts of the 101th General Meeting of the American Society for Microbiology*. ASM: Washington, D.C.
- Nobile, C.J.\* and A.C. Vollmer. 2000. Stress Response Profiling: Using Bioluminescent

- Escherichia coli* to Measure the Possible Targets of Antimicrobials and Other Compounds, abstr. I-68, p396. In *Abstracts of the 100th General Meeting of the American Society for Microbiology*. ASM: Washington, D.C.
- Alderete, A.P.\* and A.C. Vollmer. 2000. A Possible Role in the Universal Stress Protein (UspA) in *Escherichia coli* in the Regulation of Stress Response, abstr. I-70, p396-397. In *Abstracts of the 100th General Meeting of the American Society for Microbiology*. ASM: Washington, D.C.
- Vollmer, A.C., Halpern, M.\*, Kwakye, S.\* and Everbach, E.C. 1998. Bacterial Response to Acoustic Cavitation. *Gordon Conference on Microbial Stress Response*.
- Vollmer, A.C. and Ruzinova, M.\* 1998. Downstream Regulatory Targets and Phylogenetic Conservation of the Universal Stress Protein of *E. coli*. *Gordon Conference on Microbial Stress Response*.
- Halpern, M.\*, Kwakye, S.\*, Everbach, E. C., and Vollmer, A.C. 1998. An Investigation of the Effects of Ultrasound Exposure on *Escherichia coli* Using a Bioluminescent Reporter System, abstr. A-98, p.55. In *Abstracts of the 98th General Meeting of the American Society for Microbiology*. ASM: Washington, D.C.
- Ruzinova, M.\* and Vollmer, A.C. 1998. A Study of the Possible Roles and the Extent of Evolutionary Conservation of the Universal Stress Protein Gene from *Escherichia coli*, abstr. I-84, p. 322. In *Abstracts of the 98th General Meeting of the American Society for Microbiology*. ASM: Washington, D.C.
- Glater, E.\* and Vollmer, A.C. 1997. A Study of the Oxidative Stress Response in *Escherichia coli* Using a Plasmid Carrying a *katG::lux* Promoter Fusion, abstr. I-007, p 323. In *Abstracts of the 97th General Meeting of the American Society for Microbiology*. ASM: Washington, D.C.
- Tepavcevic, J.\* and Vollmer, A.C. 1997. Transcriptional Activation of the *recA* Promoters from *Escherichia coli* and *Deinococcus radiodurans* as Measured by Bioluminescence, abstr. I-008, p 323. In *Abstracts of the 97th General Meeting of the American Society for Microbiology*. ASM: Washington, D.C.
- Vollmer, A.C. and Everbach E.C. 1996. Induction of the Heat Shock Response and the SOS Response in *Escherichia coli* by the Effects of Acoustic Cavitation from Ultrasound. *Gordon Conference on Microbial Stress Response*.
- Suprpto, A.\* and Vollmer, A.C. 1996. Construction of an *in vivo* Reporter System for Use in Both *Escherichia coli* and *Myxococcus xanthus*, abstr. H-35, p 489. In *Abstracts of the 96th General Meeting of the American Society for Microbiology*. ASM: Washington, DC.
- Vollmer, A.C., Makin, I. R. S. and Everbach E.C. 1996. Induction of the Heat Shock Response and the SOS Response in *Escherichia coli* by the Effects of Acoustic Cavitation from Ultrasound, abstr. I-85, p317. In *Abstracts of the 96th General Meeting of the American Society for Microbiology*. ASM: Washington, D.C.
- Smulski, D.R., Van Dyk, T. K. Elsemore, D. A., Purohit, H., Vollmer, A. C. and LaRossa, R. A. 1996. Nutritionally-regulated, *luxCDABE*-based *Escherichia coli* Sensors. H-148 p509. In *Abstracts of the 96th General Meeting of the American Society for Microbiology*. ASM, Washington, D.C.
- LaRossa, R.A., Smulski, D.R., Vollmer, A.C., Reed, T.R., Belkin, S. and Van Dyk, T. K. 1995. Environmental Stress Detection with Universal Stress Protein Gene-Bioluminescence Gene Fusions in *Escherichia coli*. abstr. K-130. p 559. In *Abstracts of the 95th General Meeting of the American Society for Microbiology*.ASM, Washington, D.C.
- Vollmer, A.C., Smulski, D.R., Van Dyk, T.K., Belkin, S. and LaRossa, R.A. 1994. Promoter-*lux* Fusions Responsive To Nutritional Deprivation in *E. coli*. *Gordon Conference on Microbial Stress Response*.
- Belkin, S., Vollmer, A.C., Van Dyk, T.K., Smulski, D.R. and R.A. LaRossa. 1994. Bioluminescent Responses

- To Oxidative Stress And DNA Damage in *E. coli*. *Gordon Conference On Environmental Sciences: Water*.
- Smulski, D.R., Vollmer, A.C., Van Dyk, T.K., Belkin, S. and LaRossa, R.A. 1994. *Escherichia coli* Promoter-*lux* Fusions Responsive to Nutritional Deprivation. *FASEB Federation Proceedings*. 8(7): 310.
- Belkin, S., Vollmer, A.C., Van Dyk, T.K., Smulski, D.R. and LaRossa, R.A. 1994. Bioluminescent Responses to Oxidative Stress and DNA Damage in *E. coli*. abstr. Q-250, p 432. In *Abstracts of the 94th General Meeting of the American Society for Microbiology*. ASM, Washington, D.C.
- LaRossa, R.A., Smulski, D.R., Belkin, S., Vollmer, A.C., Reed, T.R. and Van Dyk, T.K. 1994. A Panel of *Escherichia coli* Promoter-*lux* Fusions for the Detection of Environmental Insults. abstr. Q-249, p 432. In *Abstracts of the 94th General Meeting of the American Society for Microbiology*. ASM, Washington, D.C.
- Vollmer, A.C., Sukhatme, V.P., Sizer, K.C., Hunkapiller, T. and Parnes, J.R. 1985. Leu-2/T8 is Homologous to Immunoglobulin and T Cell Receptor Variable Regions. *FASEB Federation Proceedings*. 44(3): 790.
- Zamoyska, R., Vollmer, A.C., Sukhatme, V.P., Sizer, K.C. and Parnes, J.R. 1985. Sequence and Expression of Lyt-2. *FASEB Federation Proceedings*. 44(4): 1177.
- Vollmer, A.C. and Switzer, R.L. 1983. Molecular Cloning of the *pyrB* Gene from *Bacillus subtilis*. *American Society for Microbiology Abstracts*.

### Vollmer - Research Experience mentoring Students at Swarthmore College

**Student (class year)      major (H= honors)      current/last known position**

\*= ASM undergraduate research fellow

#### Current lab members

Linda Vu '19	Biology H	current student
Ryan Stanton '20	Biology	current student
Calla Bush St. George '20	Biology	current student
May Dong '18	Biology	current student
Isabel Erickson '18	Biology H	current student

#### Previous lab members

Bennett Parrish '18	Biology	current student, <i>co-mentored with Jose Luis Machado</i>
Luke Eppley, '17	Biology	Research Assistant, Tufts University
Bolutife Fakoya '17	Biology	PhD student, MIT
Veda Khadka '16	Biology	Research Assistant, Stanford University
Randall Burson '15	Biology H	Fulbright fellow; Medical student, UPenn
Roxanne Morris '15	Biochemistry H	Research Assistant, UPenn
Martin Mathay '15	Biochemistry	PhD, NSF fellow, Univ of Washington, WA
Natalie Campen '14	Environ Studies H	Medical student, Stanford Univ, CA
Jasmeet Samra '14	Biology	Research Assistant, Penn State Univ, PA
Stephanie Chia '13	Biology	Medical student, Einstein Medical College
Erik Tvetenstrand '14	Biology	Graduate student, Columbia <i>co-mentored with Brad Davison</i>
Karan Padda '14	Biology H	Medical Student, University of Toledo
Emma Spady '13	Biochemistry H	Graduate student, Harvard
Nina Kogekar '13*	Biology H	Medical Student, NYU
Ted Goh '14	Biology	Research assistant, UPenn
Sinan Kazaklar '14	Biology	Graduate student, London School of Economics
Roxanne Morris '15	Biology	Research Assistant

Ariel Parker '15	Biology	PhD student, Einstein Medical College
Tom Liu '12	Biology	Medical student, UPenn <i>co-mentored with Sara Hiebert Burch</i>
Michelle Walters '12	Biology	Research assistant, Univ of Texas
Elizabeth Matlock '12	Biology	Medical Student, Georgia Medical School, Athens, GA
Laura Rodgers '12	Biology H	MD-PhD student, Univ Illinois Chicago
Amy Langdon '11	Biology H	Research Assistant, Harvard
Nicole Machac '11	Biology H	MD student, Weill Inst., Cornell University
Cory Benjamin '10	Biology	Graduate research assistant, Stowers/UMKC
Danny Lascano '10	Biology	MD Columbia, surgery resident, NY
Natasha Weiser '10*	Biology H	MD-PhD student, Univ. Michigan
Sunjay Barton '09*	Biochemistry H	MD Columbia University; surgeon, NY <i>co-mentored with Carr Everbach, Engineering</i>
Tristan Bice '09	Biology	Post doct, Federal University of Bahia, Brazil
Jesse Handler '09	Biochemistry H	MD-PhD, NYU
Anna deRegt '09	Biochemistry/Engineering	PhD , MIT; postdoc Fred Hutchinson Center, WA <i>co-mentored with Carr Everbach, Engineering</i>
Nanelle Barash '08*	Biology H	DVM-PhD, UC Davis; veterinary resident, UNC
Kathleen Condon '08	Biology H	Peace Corps - Mozambique
Benjamin Krasity '08	Biochemistry H	MD-PhD Univ. Wisconsin, Pediatrics, U Chicago
Dan Yoon '08	Biology	MD NYU, otolaryngologist, MN
Meagan Bolles '06*	Biology H	MD-PhD UNC-Chapel Hill, infectious diseases, Baltimore MD
Charlie Buffie '06*	Biology H	MD-PhD Sloan Kettering, Internist, NY
Alex Glick '06	Biology H	MD Tufts, Pediatrician, NYU
Stephanie Losq '05	Biology	MD, Family Medicine, LA
Ryan Esquejo '05	Biology	PhD, UC Irvine; Research manager, Pfizer
Aaron Strong '06	Biology H	PhD, Stanford; Assistant Professor, Univ of Maine <i>co-mentored with J. Hagelin, Biology</i>
M. Jawaad Hussain '05	Biology H	MD, New York University, Radiologist, MA <i>co-mentored with J. Hagelin, Biology</i>
Aparna Kishor '05*	Biochemistry H	MD, Univ. VA, surgeon, Baltimore, MD <i>co-mentored with C. Everbach, Engineering</i>
Jorge Aguilar '05	Biology	MD-PhD, Albert Einstein Medical College
Melanie Johncilla '05	Biology	MD, Pathology, MA
Joanne Gaskell '03	Biology H	PhD student, Stanford Univ., agricultural advisor At World Bank <i>co-mentored with Andrea Stout, Physics</i>
Jeanne McFalls '03*	Biology H	MD (UPenn), clinical asst professor of pathology, UPenn
Mathew So '03*	Biology H	MD (Mayo), diagnostic Radiology, Winston-Salem, NC <i>co-mentored with C. Everbach, Engineering</i>
Krista Marshall '03	Biochemistry	MD, Univ. Pittsburgh
Laura Valentine '02	Biology	PhD, Univ. Wisconsin, postdoc UCSF
Nicolle Gorby '03	Biology	MD, MPH, OB-Gyn, PA
Semhar Madmud '02	Biology	MD, Drexel Univ., OB-Gyn, PA
Andrew Alderete '02*	Biology	Graduate student, USC
Russell Shigeura '02	Biology	deceased
Haena Kim '02	Biology	MD , Univ. Pittsburgh, Plastic surgeon, CA <i>co-mentored with C. Everbach, Engineering</i>

Greg Bokinsky '01	Biochemistry H	PhD, Harvard, Faculty at TU Delft <i>co-mentored with A. Jain, Chemistry</i>
Cristina Cardemil '01*	Biology	MD from Univ. Pennsylvania, Molecular Epidemiology CDC
Anne Willman '01	Biology	MD from Univ. Pittsburgh, Oncologist, NJ <i>co-mentored with C. Everbach, Engineering</i>
Clarissa Nobile '01*	Biology	PhD, Assistant Prof, UC Merced, CA
Joseph Tucker '00	Biology H	MD-PhD, UNC-Chapel Hill; Assistant Professor UNC
Andrew Caffrey '99	Biology H	JD, Harvard Univ., <i>co-mentored w/ R. Latham, Biology</i>
Nathaniel Hanson '98*	Biology H	MS, MIT, <i>co-mentored with T. Mysliwiec, leave replacement</i>
Anna Tischler '98*	Biology H	PhD, Assistant Prof, Univ of MN <i>co-mentored with T. Mysliwiec, leave replacement</i>
Marianna Ruzinova '98*	Biochemistry H	MD-PhD (Columbia); Faculty member, WUStL, MO
Matthew Halpern '98*	Biology H	MD (Harvard); dermatology and surgery, PA <i>co-mentored with C. Everbach, Engineering</i>
Sylvia Kwakye '98	Engineering	PhD (Cornell); Legal Information Institute (Cornell Univ) <i>co-mentored with C. Everbach, Engineering</i>
Tinsley Davis '98	Biology	MA, Univ Wisc.; Exec. Director, Natl. Asso. Science Writers
Elizabeth Glater '97*	Biology H	PhD, Assistant Prof, Pomona College, CA
Jovanka Tepavcevic '97	Biochemistry H	PhD, Assistant Prof, Wheaton College, IL
Steven Vokes '97	Biology	PhD, Associate Prof., UT Austin, TX
Brenda Ayers '97	Biochemistry	MD, internal medicine, NY <i>co-mentored with T. Van Dyk, DuPont Co.</i>
Karli Watson '97	Biophysics	PhD (CalTech); postdoctoral fellow, Duke Univ <i>co-mentored with R. Pasternack, Chemistry; P. Collings, Physics</i>
Adisetyantari Suprpto '96*	Biology H	PhD (Rockefeller); Rockefeller Univ., Intellect. Prop.
Chi Yun '95	Biology	PhD (UCSD), director NYU Core RNAi facility
L. Christine Turtzo '94	Biology H	MD-PhD (Johns Hopkins Univ.); faculty JHU <i>co-mentored with S. Gilbert, Biology</i>
Todd Kim '94	Biology	MD (Stanford); orthopedic surgeon, CA
Elizabeth Campbell '92	Biology	PhD (Rockefeller); Professor, Rockefeller Univ.
Chris Chon '92	Biology	MD (Stanford), urology, TX
Maarten Hoek '92	Biology	Principle Scientist, Merck Co.

**Summer students from other colleges hosted at Swarthmore**

2000	Anna Rafalski, Tufts Univ. '01	PhD, Univ. Arizona
1993	Mary Anne Hirshfeld, Williams College '95	PhD in Geology
1991	Nat Gordon-Clark, Oberlin College '93	Attorney (Intellect. Prop), Washington, DC

**Swarthmore Faculty hosted in the laboratory\*\***

2005	Cheryl Grood, Department of Mathematics and Statistics
2005	Philip Jefferson, Department of Economics
2007	Bruce Maxwell, Department of Engineering
2007	Barbara Milewski, Department of Music and Dance
2011	Timothy Burke, Department of History
2013	Rachel Burma, Department of English

**Swarthmore Staff hosted in the laboratory**

2012	Melissa Mandos, Assistant Dean, fellowships and prizes
2012	Leslie Hempling, Assistant Dean, disabilities
2013	Eric Behrens, ITS

**\*\*Highlighted in articles:**

April 2013 [Swarthmore Bulletin](#): "Unlikely Scientists: Microbiologist"

Amy Cheng Vollmer unites two cultures in her 'only-at-Swarthmore' lab experiment

<http://bulletin.swarthmore.edu/bulletin-issue-archive/index.html%3Fp=1048.html>

October 2005 [The Chronicle of Higher Education](#), by Philip Jefferson: "Economist as Biologist"

<http://chronicle.com/temp/reprint.php?id=tq9bsqzvbytpvqquf9ovi4cbm8m8uf>

### **Summer research students mentored at Mills College**

Sondra Henderson '89                      1989

Phillippa Amick '88                      1987

Christina Stimmann '87                      1986

### **High School Students and Teachers Hosted in the Summer**

Brandywine High School (DE) student:                      Victoria Rafalski '01

Strath Haven High School (PA) students:                      Tim Ripper '05, Lipsa Bhagat '02, John Scott '02,  
Naasiha Siddiqui '00, Hwa-Jia Yu '98

Ridley High School (PA) students:                      Dana Kozubal '05, Matthew Bramucci '95

Cheltenham High School (PA) student:                      Andrew Levy '01 (2 summers)

Penn Crest High School (PA) student:                      Sandra Sun '94

Chester High School (PA) student                      Charles Garnet '92

Chester High School (PA) teacher:                      Judith Odom

Upper Darby High School (PA) teacher:                      Kelly Byrne

1995 – 1996                      Along with 4 other Swarthmore science faculty, hosted 24 elementary/secondary teachers from 4 local school districts: Upper Darby, Lower Merion, Wallingford-Swarthmore, Baldwin School in the IMAST program (integrated math and science teaching) to develop teaching units for middle school teams of English, Social Studies, Math and Science

### **Invited Lectures on Research**

2018    Phi Beta Kappa Lecture: Bacterial Stress Response, Butler University, Indianapolis, IN

2017    Phi Beta Kappa Lecture: Bacterial Stress Response, Randolph-Macon College, VA

Phi Beta Kappa Lecture: Gut Microbiome, Randolph-Macon College, VA

Phi Beta Kappa Lecture: Dancing with the Bugs: Choreography for Humans and their Microbial Partners, University of Maine, Orono, ME

Phi Beta Kappa Lecture: Bacterial Stress Response, University of Maine, Orono, ME

Phi Beta Kappa Lecture: Gut Microbiome, Elmira College, NY

Phi Beta Kappa Lecture: Bacteria Stress Response, Elmira College, NY

Marine Biological Laboratories Microbial Diversity Course, Woods Hole, MA

California Institute of Technology, Pasadena, CA

University of California, Los Angeles, CA

Pomona College, Claremont, CA

2016    Amherst College, Amherst, MA

University of Massachusetts, Amherst, MA

Smith College, Northampton, MA

University of Texas Medical Center, ASM Student Chapter, Houston, TX

Gordon Research Conference on Microbial Stress Response, session chair

2014    Allegheny Branch ASM speaker, Lycoming College, PA

2013    ASM speaker, Delta University, University Center, MI

- University of Georgia, Department of Microbiology, Athens, GA  
National Institutes of Health, Microbiology Division, Bethesda, MD  
ASM Distinguished (Branch) Lecturer – Ohio Branch, Ashland, OH
- 2012 ASM Distinguished (Branch) Lecturer – North Central Branch, Fargo, ND  
ASM Distinguished (Branch) Lecturer – Indiana Branch, Crawfordsville, IN  
ASM Distinguished (Branch) Lecturer – Missouri Branch, St. Joseph, MO  
Bryn Mawr College, Department of Biology, Bryn Mawr, PA
- 2010 Rice University Institute for Biosciences and Bioengineering, Houston, TX
- 2008 Allegheny Branch of the American Society for Microbiology annual symposium,  
Bucknell University, Lewisburg, PA
- 2007 Eastern Michigan University, Department of Biology, Ypsilanti, MI  
North East Microbiologists - Physiology, Ecology, Taxonomy conference, Willowbrook, NY  
Coastal Carolina University, Myrtle Beach, SC  
Cornell University, Department of Microbiology, Ithaca, NY
- 2006 University of Texas-Arlington, TX (Microbiology Student Chapter invitation)  
University of Pennsylvania, Philadelphia, PA  
Bristol Myers Squibb, New Brunswick, NJ  
The Pennsylvania State University, State College, PA  
Emory University, Atlanta, GA  
University of Washington, Seattle, WA
- 2005 Shenandoah Valley VA (Combined communities of: Bridgewater College, James Madison Univ.,  
Eastern Mennonite Univ., Mary Baldwin College) Student Chapter of the ASM - Inaugural Lecture  
Gettysburg College, Gettysburg, PA  
Oklahoma State University and the Missouri Valley Branch of the ASM  
University of Arizona, Tucson, AZ
- 2003 Villanova University, Philadelphia, PA  
Dickinson College, Carlisle, PA  
Lehigh University, Bethlehem, PA  
Responder to Richard Lewontin, Symposium in Honor of Hugh Lacey's retirement from  
Swarthmore College
- 2002 St. Joseph's University, Philadelphia, PA  
Bucknell University, Department of Biology, Lewisburg, PA  
University of Georgia, Athens, GA, Research Experience for Undergraduate (REU):  
Inaugural Summer Program Speaker
- 2001 Drexel University, Department of Biology and Biotechnology, Philadelphia, PA  
Indiana University, Department of Biology, Bloomington, IN
- 2000 Williams College, Department of Biology  
Linda Hall Library, Kansas City, MO  
Gordon Research Conference on Microbial Stress Response  
Swarthmore College, Alumni Weekend Lecture
- 1999 Swarthmore College, Board of Managers Meeting  
Swarthmore College, Faculty Noon Lecture
- 1998 Univ. of Pennsylvania, School of Medicine, Dept. of Microbiology
- 1997 Rice University, Department of Cell Biology and Biochemistry  
Ursinus College, Department of Biology  
Hofstra University, Department of Biology
- 1996 Texas A & M University, Department of Biochemistry and Biophysics
- 1995 Hamilton College, Department of Biology

- The Second Tri-College Symposium on Research in the Life Sciences, Haverford, PA  
Swarthmore College, Alumni Weekend  
Swarthmore College, Faculty Lecture
- 1993 University of Chicago, Department of Biochemistry & Molecular Biology  
The First Tri-College Symposium on Research in the Life Sciences, Swarthmore, PA
- 1992 North East Microbial Physiology, Ecology and Taxonomy Meeting  
Swarthmore College, Sigma Xi Noon Lecture  
Nineteenth International Conference on the Biology of Myxobacteria  
Swarthmore College, Department of Biology
- 1991 Eighteenth International Conf. on the Biology of Myxobacteria; session chair  
Temple University, Biology Department
- 1990 Philadelphia College of Pharmacy and Science, Department of Chemistry  
Swarthmore College, Department of Biology
- 1989 University of Delaware, Department of Life Sciences  
Swarthmore College, Department of Biology  
Pomona College, Department of Chemistry, Pomona, CA
- 1988 Cutter Biological Laboratories, Berkeley, CA
- 1985 University of California, Santa Cruz, Department of Biology  
University of California, Berkeley, Department of Genetics  
Mills College, Department of Biology  
SRI International, Menlo Park, CA  
Genentech, Inc. South San Francisco, CA
- 1984 International Mid-Winter Conference in Immunology, Pacific Grove, CA
- 1983 American Society for Microbiology Annual Meeting, New Orleans, LA

**Invited Lectures on Education/Careers/Public Face of Microbiology/Science Communication**

- 2018 Phi Beta Kappa Lecture: The Gut Microbiome and Its Effect on Host Behavior, St. Mary's College of Maryland, St. Mary's City, MD  
Phi Beta Kappa Lecture: Staying Healthy in a Microbial World, St. Mary's College of Maryland, St. Mary's City, MD  
Phi Beta Kappa Lecture: The Gut Microbiome and Its Effect on Host Behavior, Butler University, Indianapolis, IN  
Phi Beta Kappa Lecture: The Microbial World: Small and ancient is not primitive and unsophisticated Butler University, Indianapolis, IN  
Phi Beta Kappa Lecture: Science Literacy: Building Bridges and Trust, Butler University, Indianapolis, IN  
Phi Beta Kappa Lecture: Science Literacy: Building Bridges and Trust, Vanderbilt University, Nashville, TN  
Phi Beta Kappa Lecture: Swarthmore's Summer Scholars Program, Vanderbilt University, Nashville TN  
Phi Beta Kappa Lecture: The Microbial World, Illinois College, Jacksonville, IL  
Phi Beta Kappa Lecture: Swarthmore's Summer Scholars Program, Illinois College, Jacksonville, IL  
Phi Beta Kappa Lecture: Staying Healthy in a Microbial World, Illinois College, Jacksonville, IL  
Phi Beta Kappa Lecture: The Gut Microbiome and Its Effect on Host Behavior, Illinois College, Jacksonville, IL
- 2017 Phi Beta Kappa Lecture: Science Literacy: Building Bridges and Trust, Howard University, Washington, DC  
Phi Beta Kappa Lecture: Science Literacy: The Gut Microbiome: the Gut Brain Axis, Howard



- University, Washington, DC
- Phi Beta Kappa Workshop with Women in STEM on Networking and Mentoring, Howard University, Washington, DC
- Phi Beta Kappa Lecture: Science Communication, Randolph-Macon College, VA
- Phi Beta Kappa Lecture: Science Literacy, the case for Vaccines, Randolph-Macon College, VA
- Phi Beta Kappa Lecture: Diverse Career Trajectories for Science Majors, University of Maine, Orono, ME
- Phi Beta Kappa Lecture: Living the Scientific Method: Science Communication and Credibility, University of Maine, Orono, ME
- Phi Beta Kappa Lecture: Mentoring and Networking, your professional lifelines, University of Maine, Orono, ME
- Phi Beta Kappa Lecture: Science Communication and Science Literacy, Elmira College, NY
- HHMI Biointeractive High School Educators conference on Microbiology and the Microbiome: speaker and workshop leader, HHMI, Chevy Chase, MD
- Microbial Diversity Course, Woods Hole, MA: lecture on diverse careers in microbiology
- Massachusetts Institute of Technology, Cambridge, MA
- four lectures: career at a small college; professional lifelines: networking and mentoring consultant to women in science on self-promotion
- California Institute of Technology, Pasadena, CA –
- three lectures: careers; active learning; metabolism
- Keynote speaker, St. Joseph's University's Annual Teaching and Learning Forum
- Workshop leader, St. Joseph's University's Annual Teaching and Learning Forum
- 2016 University of Illinois, Urbana/Champaign, Department of Microbiology
- Amherst College, Department of Biology, Amherst, MA
- Davidson College, Department of Biology, Davidson, NC
- University of Texas Medical Center, ASM Student Chapter, Houston, TX
- Career Panel, University of Pennsylvania Postdoctoral and Career Services offices
- Dunwoody Village, Newtown Square, PA: Are We Alone? Astrobiology's inquiry into the life on earth and elsewhere, on the origin of the earth and life on it (co-presenter with Eric Jensen, astronomer)
- Distinguished speaker, 7th Annual Baylor College of Medicine NIH Institutional Research and Career Development Award (IRACDA) Research Symposium, Houston TX
- Science for Everyone: Encouraging professional, personal and public enthusiasm for science
- 2015 Dunwoody Village: Nature and Nurture. Newtown Square, PA
- Brown University Sheridan Teaching Center, speaker on teaching in the sciences
- 2014 American Society for Microbiology, public outreach panel discussion at the General Meeting
- Dunwoody Village: Microbiology in our lives. Newtown Square, PA:
- 2013 White Horse Village Retirement Community, (co-presenter with Eric Jensen, astronomer, on the origin of the earth and life on it), Media, PA
- American Society for Microbiology, Theobald J Smith Society ASM Branch, New Brunswick, NJ
- National Institutes of Health, Pharmacology Research Associate (PRAT) Program Seminar Series, Bethesda, MD
- ASM Distinguished (Branch) Lecturer - Ohio Branch, Ashland, OH
- University of Delaware, Life Long Studies, Wilmington, DE
- Rutgers University's celebration of the 60<sup>th</sup> anniversary of Selman Waksman's Nobel Prize
- 2012 University of Delaware, Life Long Studies, Wilmington, DE
- Rotary Club, Swarthmore, PA

- St. Joseph's University McNulty Scholar's Program Speaker  
Invited presenter at Pearson's Biology Leadership Conference 9, Kiawah Island, SC  
ASM Distinguished (Branch) Lecturer – North Central Branch, Fargo, ND  
ASM Distinguished (Branch) Lecturer – Missouri Branch, St. Joseph, MO
- 2011 ASM Branch Lecturer – Western New York Branch, Albany, NY  
Rotary Club, Christiana, DE
- 2010 Plenary speaker – reprise of Carski award lecture, ASMCUE, San Diego, CA  
National Institutes of Health, Career Panel, Bethesda, MD  
Rice University, Institute for Biosciences and Bioengineering, Houston, TX  
Rice University, Department of Biochemistry and Cell Biology, Houston, TX  
University of Texas Health Sciences Center, Microbiology program, Houston, TX  
Texas Medical Center, Student Chapter of the American Society for Microbiology, Houston, TX  
University of Pennsylvania Career Services, Philadelphia, PA  
University of Pennsylvania Medical School postdoctoral fellows career panel, Philadelphia, PA
- 2009 College of Physicians- panel on antibiotic resistance and MRSA, Philadelphia, PA  
Indiana University, Biology Department, Bloomington, IN  
Keynote speaker, Strategies for Success Workshop, Pearson Publishing,  
Quinsigamond Community College, Worcester, MA
- 2008 Allegheny Branch of the American Society for Microbiology annual symposium  
held at Bucknell University, Lewisburg, PA  
Ballenger Lecture Series: Eminent Scientists, Mott Community College, Flint, MI  
Keynote speaker on Mentoring and Networking, ABRCMS, Orlando, FL  
University of Pennsylvania, Graduate School of Arts and Sciences, Philadelphia, PA  
Harvard University, Graduate School of Arts and Sciences, Cambridge, MA  
Boston University, Women in Biology, MA  
AAAS Meeting, Careers involving scientific training and interpersonal communication, Boston, MA  
Keynote speaker, Strategies for Success Workshop, Pearson Publishing, Ohlone Community College,  
Newark, CA  
Keynote speaker, Strategies for Success Workshop, Pearson Publishing, Toronto, Canada
- 2007 Keynote speaker on Mentoring and Networking, ABRCMS, Austin, TX  
University of Michigan, Life Sciences Post-doc Association, Ann Arbor, MI  
Keynote speaker, Strategies for Success Workshop, Pearson Publishing, Henry Ford  
Community College, Dearborn, MI  
ASM Kadner Institute: Career Preparation-Graduate Students & Postdocs, Boulder, CO  
Cornell University, Department of Microbiology, Ithaca, NY  
MIT, Department of Biology, Masters Education Group, Cambridge, MA  
Tufts University, Department of Microbiology, Boston, MA  
Harvard University, Office of Career Services, Cambridge, MA  
Harvard University, Microbial Sciences Program. Cambridge, MA  
Albert Einstein College of Medicine/Yeshiva University, NY
- 2006 Panelist, Johns Hopkins University (School of Medicine): Careers in Academics  
University of Texas-Arlington, TX (Microbiology Student Chapter invitation)  
ASM (American Society for Microbiology) Education Board Sponsored Kadner Institute:  
Careers Workshop Panelist on Liberal Arts College Faculty Careers, University of Connecticut, Storrs, CT  
Virginia Polytechnic Institute and State University, Career Symposium, Blacksburg, VA  
University of Illinois, Urbana-Champaign, IL  
University of Wisconsin, Madison, WI  
University of Pennsylvania Biomedical Postdoctoral Programs - Career Workshop Series:

- Pursuing an Academic Career, Philadelphia, PA  
Swarthmore College Alumni in Atlanta, GA  
Swarthmore College Alumni in Seattle, WA  
ASM General Meeting - Student Brown Bag Lunch Series: "Non-bench Career Trajectories"  
ASM Conference for Undergraduate Educators: "Teaching Metabolism Interactively"
- 2005 American Society for Microbiology General Meeting - Student Brown Bag Lunch Series:  
"Non-bench Career Trajectories"  
Strategies for Success Workshop at Prince George's Community College, MD (Pearson,  
Benjamin Cummins Publisher)  
University of Pennsylvania - Career Workshop for biomedical postdoctoral fellows  
ASM Education Board Sponsored GAP (Graduate students & Postdoc) Sumner Institute:  
Careers Workshop Panelist on Liberal Arts College Faculty Careers, University of  
Connecticut, Storrs, CT
- 2004 Swarthmore College Alumni in London, UK  
Strategies for Success Workshop at Montgomery County Community College, PA  
(Benjamin Cummins Publisher)  
ASM Education Board Sponsored GAP (Graduate students & Postdoc) Sumner Institute: Careers  
Workshop Panelist on Liberal Arts College Faculty Careers, University of Connecticut, Storrs, CT
- 2003 ASM Undergraduate Education Conference, College Park, MD
- 2002 ASM Eastern Pennsylvania Branch, Philadelphia, PA  
ASM Undergraduate Education Conference, Salt Lake City, UT  
ASM General Meeting, Committee on the Status of Women in Microbiology: Session on  
Careers in Microbiology, Salt Lake City, UT  
University of Georgia, Athens, GA, Research Experience for Undergraduate (REU):  
Inaugural Summer Program Speaker  
National Association of Biology Teachers National Meeting, Cincinnati, OH
- 2001 Drexel University, Department of Biology and Biotechnology, Philadelphia, PA  
Indiana University, Department of Biology, Bloomington, IN
- 1996 Texas A & M University, Department of Biochemistry and Biophysics
- 1992 AAUW - Northern Philadelphia Region: Women in Science Day  
Franklin Institute: Women in Science Day

### **Service to the Scientific/Academic Community outside of Swarthmore**

#### **Reviewer of manuscripts and other editorial activities:**

*Applied and Environmental Microbiology, Archives of Microbiology, Water Research, Journal of Biological Chemistry, Chemosphere, Food Microbiology, Journal of Biological Physics, International Journal of Biological Sciences, Journal of Basic Microbiology, Proceedings of the National Academy of Sciences (USA), BioQuest, Applied Microbiology and Biotechnology, Journal of Bacteriology, mBio (ASM), Anaerobe, Journal of Bacteriology, FEMS, Microbial Cell*

Compiled index for the commemorative volume on the *Biology of the Myxobacteria* (ASM Press, 1993; Dworkin, M. and Kaiser, D., eds.)

Textbook: *Microbiology* (McGraw Hill 2002, Prescott et al.)

Textbook: *Microbes* (ASM Press 2005, Schaechter, et al.)

Textbook: *Microbe, second edition* (ASM Press 2015, Schaechter, et al.)

#### **Reviewer of grant proposals:**

2013 - 2014 HHMI University grant competition (Round I, II)

2009 HHMI University grant competition (Round I)

2006 Kentucky Science and Engineering Foundation  
2006 Panelist for the HHMI University grant competition  
2006 US Civilian Research/Development Foundation (Cooperative Grants Program)  
2004 - 2012 Murdock Charitable Trust Foundation  
2002 - 2003 Beckman Scholars Program, Beckman Foundation (Advisory Panelist)  
2001 - 2002 NSF, GRFP fellowship panel: biochemistry, biophysics and structural biology, Panel Chair  
1999 - 2001 NSF, GRFP fellowship panel: biochemistry, biophysics, and molecular biology, Panelist  
1998 NSF, graduate research (pre-doctoral) fellowship GRFP panelist: microbiology, graduate minority fellowships  
1998 - ad hoc, NIH microbiology research  
1996 - ad hoc, NSF bioengineering, microbial genetics research  
1995 - 2000 University of Hawaii Sea Grant

**Thesis committee:**

2007 Master's degree thesis: Lori Cory (mentor, J Tudor), St. Joseph's Univ

**Program reviewer/consultant:**

2016 Biology Department, Lewis University, sole reviewer  
2015 Biology Department, Lafayette College, committee chair  
2014 Fairfield University, Biology Department, committee chair  
2014 College of the Holy Cross, Biology Department  
2010 The College of William and Mary, Biology Department/Cluster review  
2010 Reed College, Department of Biology review  
2009 - 2010 Willamette University, Department of Biology, Microbiology search  
2009 Butler University, Department of Biology, external reviewer  
2009 Colgate University, Department of Biology, chair, external review comm.  
2007 - 2010 University of Arizona: AZ-START program, external consultant  
2005 - 2014 University of Arizona: HHMI program, chair, external review committee  
2006 Ursinus College, Biology Department  
2006 Brigham Young University, Microbiology program  
2001 Dickinson College, Biology department  
2003 NSF graduate fellowship program (Committee of visitors)  
1997 Haverford College, HHMI  
1997 Georgian Court College, Biology department (team chair)  
1995 Westmont College, Re-Accreditation\*  
1994 UC Santa Cruz, Re-Accreditation\*

\*Western Association of Schools and Colleges Site Visit Team

**Meeting organizer/convener**

2017 for Microbe 2018 Plenary: "The 100<sup>th</sup> Anniversary of the 1918 Influenza Pandemic"  
2016 for Microbe 2017 Plenary: "Climate Change and Microbial Feedbacks"  
2013 Session convener: "Extraordinary and Extreme Microbial Lifestyles at the 113<sup>th</sup> General Meeting of the American Society for Microbiology"  
2008 Session chair, ASM's 2nd Annual Conference on Beneficial Microbes  
2007 Advisory committee member, BioMicroWorld2007 Conference  
2007 - 2010 Division I Chair-elect, chair, advisor ASM General meeting planning  
2004 - 2013 Convener, Regional Microbiology Educators Network  
2001 Chair, Session on Mentoring, General Meeting of the ASM  
2000 Vice chair (elected), Gordon Conference on Microbial Stress Response  
1993 Convener, the First Tri-College Symposium on Research in the Life Sciences  
1992 Co-convener, the International Meeting on the Biology of the *Myxobacteria*,

celebrating the centennial of the discovery of the *Myxobacteria*

**American Society for Microbiology - Service**

- 2017 Co-Chair, Profession of Microbiology track, Microbe 2018 Meeting Planning Committee
- 2017 - 2020 American Society for Microbiology, inaugural Board of Directors
- 2017 -2019 American Society for Microbiology, Council on Microbial Sciences
- 2015 - 2018 ASM's Meeting Planning Committee for Microbe, annual meeting
- 2011 - 2014 ASM's General Meeting Planning Committee
- 2011 - 2013ASM's Center for the History of Microbiology/ASM Archives Committee
- 2011 - 2013ASM's Career Development Grants for Postdoctoral Women Committee
- 2010 - 2013 ASM Carski Undergraduate Teaching Award nominating committee
- 2007 - 2010Chair Elect, Chair, Advisor - Division I (General Microbiology)
- 2004 - 2009 Chair, Student Membership Committee
- 2003 - 2006 ASM Founders Distinguished Service Award Nominating Committee
- 2003 Judge, Delaware Valley Science Fair, presented ASM Eastern Branch award
- 2001, 2002, 2006, 2012 Presenter - Undergraduate Education Conference
- 1999 – 2003 Editor-in-chief, *Microbiology Education*, ASM Education Board
- 1998 - 2002 Member, ASM Committee on Undergraduate Education
- 1999 - 2017 Member, Eastern PA Branch, education Committee

**Other service**

- 2015 - present External mentor, for assistant professor in biology at Amherst College
- 2007 - 2017 President, Waksman Foundation for Microbiology
- 2005 - 2014 Consultant, University of Arizona's HHMI grant proposal
- 2001 - 2017 Trustee, Waksman Foundation for Microbiology
- 2000, 2001, 2006 Judge, Concord High School (Wilmington, DE) Science Fair
- 2000 Presenter, Brandywine School District (DE) In-service for Science Teachers
- 1990 Invited participant, American Society for Cell Biology: Conference in Careers in Biological Sciences - Advancement for Women and Minorities
- 1993 - 1996 Rice University Alumni Association Board (nationally elected position)
- 1988 Council on Undergraduate Research: Committee for Scholarships and Grants

**Swarthmore College Service - Tri-College and College-wide**

**Invited presentations (host)**

- 2018 Swarthmore Faculty Lecture: A Tale of Two Projects: Breathing life back into microbiology research!  
S<sup>3</sup>P Presentation at Parrish Salon (Advancement)  
MULTI Interracial Relationships Panel, presenter
- 2017 Astrobiology lecture (with Eric Jensen) for Biology Club  
S<sup>3</sup>P Presentation to Advancement's Gift Lab  
Facilitator, Science Communication Workshop  
Faculty lunch presentation about Swarthmore Summer Scholars (S<sup>3</sup>P) (David Harrison)  
Faculty mentor, talk about health, nutrition and vaccines to Women's Varsity Basketball Team (Coach Renee Varney)  
Presentation about S<sup>3</sup>P at New Faculty Orientation (Associate Provost)  
Presentations to students on Studying Science at Swarthmore (Dean)  
Boston area alumni event, speaking about Summer Scholars Program at Swarthmore (Alumni)  
Special presentation to Student Academic Mentors: Studying Science at Swarthmore (Dean)
- 2016 Importance of professional societies, conferences, meetings (Global Health Forum)  
Swatstruck Faculty Panel for Parents (Admissions)

- Presentations to students on Studying Science at Swarthmore (Dean)  
Female Identity in Academia: (Swarthmore Asian Association and Women's Resource Center)  
Special presentation to Student Academic Mentors: Studying Science at Swarthmore  
HHMI mentoring mini-grant: Workshop on how (and why) to attend a professional society meeting
- 2015 Presentations about Summer Scholars Program:  
Faculty lunch (Associate Provost)  
Parents' Council (VP Alumni/Development)  
Multi on Campus: A Panel for the Exploration of Multiple Identities (Intercultural Center)  
Science and Society faculty panelist (Students)  
Co-emcee: Concert celebration President Smith's inauguration (inaugural committee)  
Presentations to students on Studying Science at Swarthmore (Dean)  
Panelist – Honors program presentation to sophomore class (Dean)  
Special presentation to Student Academic Mentors: Studying Science at Swarthmore (Dean)  
Presentation to Admissions Deans about Biology at Swarthmore
- 2014 Panelist for Sesquicentennial Book Tour, San Francisco, CA (Alumni)  
Special presentation to Student Academic Mentors: Studying Science at Swarthmore  
Panelist – Alumni Weekend presentation: Second Tuesday Science Café, funded by the  
Aydelotte Foundation  
Panelist – faculty Lunch presentation: Second Tuesday Science Café, funded by the  
Aydelotte Foundation  
Panelist for Ride the Tide Weekend (Admissions)  
Panelist for Sesquicentennial Book Tour, Washington DC (Alumni)  
WSRN radio interview: science literacy (Student broadcasters)  
Center for Innovation and Leadership (Dean and Alumni Council)
- 2013 Special presentation to Student Academic Mentors: Studying Science at Swarthmore  
Women in Academia Panel – Natural Sciences and Engineering (Swarthmore students)  
Philadelphia Alumni Event: Microbiology of Chocolate  
Center for Innovation and Leadership – Drop In workshop on how (and why) to attend a  
professional society meeting  
Womyn of Color: Workshop on self-silencing  
Discovery Weekend faculty panelist (Dean of Admissions)  
Philadelphia Alumni Faculty Panel on Pedagogy (invited by President Chopp)  
Coordinating second year of Second Tuesday Science Café at Swarthmore
- 2012 Special presentation to Student Academic Mentors: Studying Science at Swarthmore  
Invited to Womyn of Color viewing and discussion of *Voices of Color*  
Initiated Second Tuesday Science Café at Swarthmore – gave first talk: "Bacteria, Viruses,  
Antibiotics and Vaccines"  
Invited speaker at Swarthmore's TEDx event: "What Makes a Good Society?"  
Faculty Diversity Panel (invited by Dean of Students)  
Divisional faculty representative at the Bathtub Debates (sponsored by the debate society)  
Panelist at Faculty lunch on serving as a review on grant panels (invited by Associate Provost  
and Corporate, Foundation and Government Relations)
- 2011 2 presentations: Studying Science at Swarthmore (sponsored by Dean's office)
- 2010 Consultant to Scott Arboretum on bacterial contamination in water sources for greenhouse  
Admissions staff: Call to Serve grant for federal jobs  
Asian and Pacific Islander Women: speaking out against self-silencing faculty panel
- 2009 Alumni connection at Swarthmore, presentation (with Eric Jensen) on Astrobiology  
Alumni weekend presentation

- Asian and Pacific Islanders: Career panelist  
Asian and Pacific Islanders: Women in academia presentation
- 2008 Alumni Council, after dinner presentation (with Eric Jensen) on Astrobiology  
Development Staff meeting: Microbiology and science literacy  
Alumni Connections event: Washington, DC, San Francisco, CA
- 2007 Panel and workshop: Asian Women and Speaking in Public (SAO women)  
Alumni Connections event in NYC  
Co-convener (with Peter Collings): Mellon Tri-co Faculty workshop:  
    Introductory Physics for the Life Sciences: Designing a new curriculum  
Panelist and moderator (Admissions): Discovery Weekend  
Expanding Your Horizons (student coordinators): Microscopy  
Faculty Lunch presentation (Associate Provost): Science literacy  
Faculty Panel - Upward Bound (Aubrielle Houston): communicating with professors
- 2006 After Dinner Talk (Provost) Board of Managers  
Faculty panelist (Admissions) Discovery Weekend  
Faculty speaker (Development): Parents weekend  
Faculty speaker (Admissions): Ride the Tide  
Faculty speaker (Career services/ Human resources): Leadership workshop
- 2005 Panelist (Admissions) Admitted Students weekend - Capstone Panel: The Meaning  
    of Swarthmore and Other Simple Questions
- 2004 Faculty lunch presentation (Assoc. Provost), Hosting the Diverse Careers on Biology  
Panel and working with Career Services  
Faculty speaker (College President) First Collection  
Panelist (Admissions) NAFSA visiting foreign educational consultants
- 2003 Speaker on Science at Swarthmore, London Area Alumni (Alumni Relations)  
Presenter (Development) "Student-Faculty Research Collaborations in the Sciences"
- 2002 Moderator (Alumni) LAX Panel on Biotechnology
- 2001 Panelist (Admissions) Admitted Students weekend on the "Meaning of Swarthmore and Life"
- 2000 Panelist, (SAO) Asian faculty in the sciences/liberal arts colleges  
Hosted and introduced Laurie Garrett, Media Fellow (College President)  
Panelist (Alumni Council) Women in Science at Swarthmore
- 2000 - 2004 Presenter, Student Study Skills Workshop (Dean of Students)
- 2000 - 2003 Panelist, Freshman orientation on "How to DO Swarthmore" (Dean of Students)
- 1999 - 2004 Panelist, Discovery Weekend: Science in the Liberal Arts (Admissions)
- 1999 Panelist, Student-faculty collaborations (Admissions Tri-College Counselors)
- 1997 Hosted and introduced Dr. David Ho, AIDS Researcher
- 1995 Panelist, Student-Faculty Research (Admissions)  
Lecture on Research, Alumni Weekend (Alumni Relations)
- 1990 - 1993 Panelist, Minority Recruiting Day, Admissions Committee (Admissions)
- 1990 Group Co-leader, Freshman Orientation (Dean of Students)

**College-wide Committees/programs**

- 2017 – Director, Swarthmore Summer Scholars Program
- 2017 - 2019 Elected member of Council on Educational Policy (advisory to the Provost)
- 2015- 2016 Advisory committee, Swarthmore Summer Scholars Program
- 2015 -2016 Advisory committee, College Honors Program
- 2014 -2015 One of four faculty for inaugural year of Swarthmore Summer Scholars Program
- 2013 -2014 Working groups discussion regarding diversity and summer bridge programs
- 2010 - 2014 Honorary Degrees Committee (appointed by Provost)

- 2010 - 2012 HHMI Steering Committee (appointed by Provost)  
2010 - 2012 Co-chair, Call to Serve (Federal jobs) steering committee  
2009 - 2012 Co-chair, Call to Serve: Federal Job Grant through the Partnership for Public Service  
2008 - 2009 Acting Program Director, HHMI-funded program at Swarthmore  
2007 - 2008 Planning Committee on recruitment and Composition of Class and Financial Aid  
(appointed by Provost)  
2006 - 2008 Dean's Advisory Committee (appointed by Provost)  
Academic Adviser for pre-majors (Dean of Students)  
HHMI Steering Committee (appointed by Provost)  
2006 Grievance Panelist (selected by Human Resources)  
2004 - 2005 Honorary Degree Committee (appointed by Provost)  
2002 - 2003 Honorary Degree Committee (appointed by Provost)  
1999 - 2001 Council on Educational Policy (elected by faculty)  
1998 - 2003 HHMI Steering Committee (appointed by Provost)  
1998 - 1999 Cultural Diversity Task Force (appointed by Provost)  
Equal Opportunity Committee (appointed by Provost)  
1996 - 1997 Academic adviser for students with special needs (appointed by Provost)  
Acting Director, HHMI program  
1995 - 1997 Council on Educational Policy (elected by faculty)  
1994 - 1995 Committee on Research Ethics (appointed by Provost)  
Task Force on Academic Support (appointed by Provost)  
1992 - 1995 HHMI Steering Committee (appointed by Provost)  
COFP Faculty Task Force on Faculty workload (appointed by Provost)  
Adviser, Pew Foundation Minority Fellows (appointed by Provost)  
1991 - 1992 Steering Committee for ALANA, Tri-College faculty of color professional alliance  
(appointed by Provost)  
1990 - 2003 Academic Adviser for pre-majors (Dean of Students)  
1990 - 1992 Black and Minority Concerns Committee (appointed by Provost)  
1990 - 1992 Member, ALANA (Tri-College faculty of color) (appointed by Provost)  
1990 - 1991 AAUP, Executive Committee 1990-91 (elected by faculty)

***Interdepartmental service/participation***

- 2016 Career Services External Committee interviewee  
1995, 2003, 2006, 2014, 2016 Interviewer for tenure track positions (Chemistry/Biochemistry)  
2003 - 2014 Health and medicine working group (convened by Ellen Magenheim, Economics)  
2001 - 2012 Bioethics working group (convened by Amy Vollmer)  
1999 - 2002 Biochemistry working group (convened by Amy Vollmer)  
1996 - 1997 Biochemistry curriculum review committee (Chemistry Dept.)  
1993 Interviewer for tenure track Asian-American literature position (English Dept.)  
1990 - 96 Comprehensive examiner, thesis reader for biochemistry (Chemistry Dept.)

***Biology Department***

- 2017 Course director: Biology 001: Cellular and Molecular Biology  
2017 Coordinator, Themes in Biology lecture series (senior comprehensive)  
2013 - 2016 Chair (appointed by Provost)  
2013 Coordinator, Themes in Biology lecture series (senior comprehensive)  
2012 Co-coordinator, Themes in Biology lecture series (senior comprehensive)  
2011 Chair, Developmental Biology Search Committee  
1992 - 2011 HHMI committee member (unless on leave)  
2010 - 2011 Mentor, Sarah Hews, Bio-Math post doc (HHMI-funded)



2008 Bio Math search committee (HHMI supported)  
2007 Course director: Biology 001: Cellular and Molecular Biology  
2006 Coordinator, Themes in Biology lecture series (senior comprehensive)  
2003 - 2005 Chair (appointed by Provost)  
2003, 2004 Convener, Alumni Panels on Careers in Biology  
1999 - 2005 Honors adviser and convener of Senior Honors Study in Biology  
1999 Course director: Biology 001: Cellular and Molecular Biology  
1996 - 1997; 1999 - 2000; 2002 - 2003 Budget Committee  
1998 - 1999; 2001 - 2002 Bios club adviser  
2000 - 2003 Science Center Construction - Building users group Biology representative  
1995 Course director: Biology 001: Cellular and Molecular Biology  
1993; 1997; 2002; 2005; 2009; 2016 Microbiology leave replacement, Search chair  
1994; 1996 Laboratory technician, search committee  
1995 Tenure track cell biologist, search committee  
1993 Tenure track vertebrate physiologist, search committee  
1995 - 1996 Social committee  
1991 Course director: Biology 001: Cellular and Molecular Biology  
1991 - 1993; 1994 - 1995 Curriculum committee  
1992 Coordinator for Senior Evolution Seminar  
1990 - 1991 Handbook committee  
1990 - present (unless on leave) Academic advisor

Upcoming lectures:

June 13-17: Keynote speaker, 62nd Wind River Conference on Prokaryotic Biology, Estes Park, CO

*Updated 2 May 2018*