

CURRICULUM VITAE

Anne Roush Gaillard, Ph.D.
Department of Biological Sciences
Sam Houston State University
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EDUCATION

Ph.D., Cell Biology 2001
Emory University, Atlanta, Georgia

Dissertation: "Characterization of A-Kinase Anchoring
Proteins from *Chlamydomonas* Flagellar Axonemes"

B.S., Genetic Biology 1996
Purdue University, West Lafayette, Indiana

PROFESSIONAL EXPERIENCE

2011-present	Associate Dean , College of Science and Engineering Technology Sam Houston State University, Huntsville, Texas
2010-present	Associate Professor (tenured) , Department of Biological Sciences, Sam Houston State University, Huntsville, Texas
2010-2011	Assistant Chair , Department of Biological Sciences Sam Houston State University, Huntsville, Texas
2007-2010	Graduate Coordinator , Department of Biological Sciences Sam Houston State University, Huntsville, Texas
2004-2010	Assistant Professor , Department of Biological Sciences Sam Houston State University, Huntsville, Texas
2004	Lecturer , Department of Biology Texas A&M University, College Station, Texas
2001-2003	Assistant Professor , Department of Biology University of North Georgia, Dahlonega, Georgia

ONGOING ASSOCIATE DEAN ADMINISTRATIVE ASSIGNMENTS

- Coordinate Academic Review Panel reviews of academic grievances
- Oversee graduate studies for the College of Science and Engineering Technology (applications, admission policies, degree plans, scholarships, termination appeals, communication with graduate advisors)
- Collect data on current College of Science and Engineering Technology students and graduates (for grant writing purposes)
- Assist Registrar's Office and Academic Affairs in obtaining curriculum and instruction information from departments in the College of Science and Engineering Technology
- Oversee Graduate Catalog revisions
- Represent the College of Science and Engineering Technology on the Graduate Council
- Review appeals and advise College of Science and Engineering Technology students for academic suspension
- Review overload appeal requests
- Serve on various university and college committees (see below)

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

American Society for Cell Biology
American Society for Microbiology
Sigma Xi Scientific Research Society
Genetics Society of America
Beta Beta Beta Biological Honor Society

GRANTS RECEIVED

Gaillard, A.R. and R. Harris. 2017. Pre-JAMP Camp Recruitment and Outreach. \$17,500

Gaillard, A.R., M.R. Breuer, and A.R. Keathley. 2015. SHSU EURECA Summer FAST Grant. \$8,000

Haines, D. and A. R. Gaillard. 2013. GCAT Synthetic Biology Equipment Grant \$11,000

Gaillard, A.R. 2010. Identification of a p53-like protein in *Chlamydomonas reinhardtii*. SHSU Faculty Research Grant. \$5,000

Gaillard, A.R. 2008. A pharmacological study of protein kinase G (PKG) in flagellar motility of *Chlamydomonas*. SHSU Enhancement Grant for Research. \$17,840

- Randle, C.P., S. Bucheli, R. Deaton, A. Gaillard, and T. Primm. 2008. Genomics Educational Grant, Beckman-Coulter. \$50,000
- Loft, Brian M., Melinda A. Holt, and Anne R. Gaillard. 2007. Peers Enhancing their Education through Research and Scholarship (PEERS). National Science Foundation. \$599,980
- Gaillard, A.R. 2006. The characterization of PKG in cilia and flagella. SHSU Faculty Research Grant. \$5,000
- Gaillard, A.R. 2006. Water toxicity of the Rio Grande basin (\$29,000). Contracted from J.K. Williams and W.I. Lutterschmidt (PI's), Land use practices and its effect on ecosystem dynamics along the Rio Grande. Sustainable Agricultural Water Conservation, USDA-CSREES grant. \$156,000.
- Gaillard, A.R. 2005. Characterization of a cGMP-dependent protein kinase from *Chlamydomonas* flagellar axonemes. Texas Excellence Fund. \$15,000

GRANTS SUBMITTED (NOT FUNDED)

- Gaillard, A.R. 2014. MRI: Acquisition of a Confocal Microscope for Interdisciplinary Research and Research Training at Sam Houston State University. (resubmission) \$508,796
- Gaillard, A.R. 2013. MRI: Acquisition of a Confocal Microscope for Interdisciplinary Research and Research Training at Sam Houston State University. \$524,065
- Lynne, A. and A.R. Gaillard, 2010. National Genomics Research Initiative, Howard Hughes Medical Institute's Science Education Alliance. No monetary award; provides reagents, supplies, resources, and training for laboratory teaching.
- Gaillard, A.R. 2009. Analysis of a cGMP-dependent protein kinase (PKG) signaling complex in a *Chlamydomonas* model of ciliary structure and function. National Institutes of Health R-15. \$175,000.
- Gaillard, A.R. 2007. Characterization of a PKG protein complex in the motility of *Chlamydomonas* flagella. Advanced Research Program, Texas Higher Education Coordinating Board. \$50,540.

REFEREED PUBLICATIONS

* denotes undergraduate authors

- Hardcastle, T.W., A.A. Pearce*, and A.R. Gaillard. 4-hydroxyacetophenone alters phototactic sign and ciliary motility in *Chlamydomonas*. 2018. In preparation.
- Sebastian, M.J.*, A. Solmonson*, V. Alfaro*, and A.R. Gaillard. A *Chlamydomonas* strain deficient in the RII-binding domain of radial spoke protein 3 exhibits a motility phenotype that is dependent on the presence of I1 dynein. 2017. Submitted to *Cytoskeleton*, not published. Under revision for resubmission.
- Wirschell, M., R. Yamamoto, L. Alford, A. Gokhale, A.R. Gaillard, and W.S. Sale. 2011. Regulation of ciliary motility: conserved protein kinases and phosphatases are targeted and anchored in the ciliary axoneme. *Archives of Biochemistry and Biophysics*. 510: 93-100.
- Lutterschmidt, W.I., J.C. Cureton, and A.R. Gaillard. 2010. “Quick” DNA extraction from claw clippings of both fresh and formalin-fixed box turtle (*Terrapene ornata*) specimens. *Herpetological Review*. 41(3): 313–315.
- Evans, S.K.*, A.A. Pearce*, P.K. Ibezim*, T.P. Primm, and A.R. Gaillard. 2010. Select acetophenones modulate flagellar motility in *Chlamydomonas*. *Chemical Biology and Drug Design*. 75: 333-337.
- Wirschell, M., F. Zhao*, C. Yang, P. Yang, D. Diener, A.R. Gaillard, J. L. Rosenbaum, and W. S. Sale. 2008. Building a radial spoke: flagellar radial spoke protein 3 is a dimer. *Cell Motility and the Cytoskeleton*. 65: 238-248.
- Gaillard, A.R., L.A. Fox, J.M. Rhea*, B. Craige, and W.S. Sale. 2006. Disruption of the A-kinase anchoring domain in flagellar radial spoke protein 3 results in unregulated axonemal PKA activity and abnormal flagellar motility. *Molecular Biology of the Cell*. 17: 2626-2635.
- Gaillard, A. Roush, D. Diener, J. Rosenbaum, and W. Sale. 2001. Radial spoke protein 3 is an A-kinase anchoring protein (AKAP). *Journal of Cell Biology*. 153: 443-448.
- Roush, A., M. Suarez, E.C. Friedberg, M. Radman, and W. Siede. 1998. Deletion of the *Saccharomyces cerevisiae* gene RAD29 encoding an *Escherichia coli* *dinB* homolog confers UV radiation sensitivity and altered mutability. *Molecular and General Genetics*. 257: 686-692.

SELECTED PROFESSIONAL PRESENTATIONS

* denotes undergraduate author, \$ denotes award-winning presentation,
underlined author = presenter

Matthew R. Breuer and Anne R. Gaillard. Large-Scale Prediction of Programmed Cell Death Genes and Reverse Genetic Analysis of Mutant Strains in *Chlamydomonas reinhardtii*. 18th International Conference on the Molecular and Cellular Biology of *Chlamydomonas*, Washington, DC, June 2018.

Matthew R. Breuer and Anne R. Gaillard. A Reverse Genetics Approach to Elucidating the Molecular Basis of Programmed Cell Death in *Chlamydomonas reinhardtii*, Texas Branch Meeting of the American Society for Microbiology, College Station, TX, October 2017.

Subash Ghimire and Anne R. Gaillard. Assessing of Lifespan and Aging of *Chlamydomonas reinhardtii* in Different Growth Conditions. Texas Branch Meeting of the American Society for Microbiology, College Station, TX, October 2017.

William Perez*, Celso Catumbela, and Anne R. Gaillard. Characterization of Metacaspase II During Programmed Cell Death in *Chlamydomonas*. SHSU Undergraduate Research Symposium, April 2017.

Matthew Breuer and Anne R. Gaillard. Preliminary Analysis of Select Programmed Cell Death Genes in *Chlamydomonas reinhardtii*. Texas Branch Meeting of the American Society for Microbiology, New Braunfels, TX, April 2017.

Celso S. G. Catumbela and Anne R. Gaillard. Genetic analysis of Metacaspase Type I during heat-stress induced PCD in *Chlamydomonas reinhardtii*. Texas Branch Meeting of the American Society for Microbiology, New Braunfels, TX, April 2017.

Victoria Adeniran* and Anne R. Gaillard. The effects of the chemotherapy drug KP1019 on *Chlamydomonas*. Texas Branch Meeting of the American Society for Microbiology, Dallas, TX, November 2016.

Matt Breuer^{\$} and Anne R. Gaillard. Potential Programmed Cell Death Genes in *Chlamydomonas reinhardtii*. Texas Branch Meeting of the American Society for Microbiology, Dallas, TX, November 2016. (Second Place Poster Presentation)

Celso S. G. Catumbela^{\$} and Anne R. Gaillard. Effects of Metacaspase-I Knockout During Heat-Stress Induced Programmed Cell Death in *Chlamydomonas reinhardtii*. Texas Branch Meeting of the American Society for Microbiology, Dallas, TX, November 2016. (Second Place Poster Presentation)

Subash Ghimire and Anne R Gaillard. Examining lifespan and aging of *Chlamydomonas reinhardtii* in different growth conditions. Texas Branch Meeting of the American Society for Microbiology, Dallas, TX, November 2016.

Subash Ghimire and Anne R Gaillard. Assessing Lifespan and Aging of *Chlamydomonas reinhardtii* in Different Growth Conditions. Texas Branch Meeting of the American Society for Microbiology, New Braunfels, TX, April 2016.

Matthew R Breuer*, Terah L Hardcastle, Anne R Gaillard. Using Two-Dimensional Gel Electrophoresis to Isolate a Potential p53-like Protein from *Chlamydomonas reinhardtii*. SHSU Undergraduate Research Symposium, April 2016.

Allyson R. Keathley*^{\$} and Anne R. Gaillard. Is Endonuclease G Conserved in *Chlamydomonas reinhardtii*? SHSU Undergraduate Research Symposium, April 2016. (Runner-up Best Senior Presentation)

Alison Stephens*, Justin Williams, Anne Gaillard, and Donovan Haines. Characterization of the *Apocynaceae* Family for the Presence of Bioactive Compounds. SHSU Undergraduate Research Symposium, April 2016.

Matthew R Breuer*, Terah L Hardcastle, Anne R Gaillard. Using Two-Dimensional Gel Electrophoresis to Isolate a Potential p53-like Protein from *Chlamydomonas reinhardtii*. Beta Beta Beta Regional Convention, Cedar Hill, TX, April 2016.

Allyson R. Keathley*^{\$} and Anne R. Gaillard. Is Endonuclease G Conserved in *Chlamydomonas reinhardtii*? Beta Beta Beta Regional Convention, Cedar Hill, TX, April 2016.

Alison Stephens*, Justin Williams, Anne Gaillard, and Donovan Haines. Characterization of the *Apocynaceae* Family for the Presence of Bioactive Compounds. Beta Beta Beta Regional Convention, Cedar Hill, TX, April 2016.

Matthew R. Breuer*, Allyson R. Keathley*, and Anne R. Gaillard. The Events of Programmed Cell Death (PCD) in the Unicellular Alga *Chlamydomonas* are Distinct from Those of Necrosis. American Society for Cell Biology Annual Meeting, San Diego, CA, December 2015.

Matthew R. Breuer*^{\$}, Allyson R. Keathley*, and Anne R. Gaillard. Population-Level Analysis of Programmed Cell Death in *Chlamydomonas*. Texas Branch Meeting of the American Society for Microbiology, Huntsville, TX, October 2015. (2nd Place Award)

Allyson R. Keathley*, Matthew R. Breuer*, and Anne R. Gaillard. Distinguishing Between Programmed Cell Death and Necrosis in *Chlamydomonas*. Texas Branch

Meeting of the American Society for Microbiology, Huntsville, TX, October 2015.

Zechariah Carroll*, Madhu Choudhary, Anne R. Gaillard, and Donovan Haines.
Bioassay-guided Isolation of Antimicrobial Phytochemicals. SHSU
Undergraduate Research Symposium, April 2015.

Matthew R. Breuer*, Allyson R. Keathley*, and Anne R. Gaillard. Programmed Cell
Death is Distinct from Necrosis in *Chlamydomonas*. SHSU Undergraduate
Research Symposium, April 2015.

Allyson R. Keathley*, Matthew R. Breuer*, and Anne R. Gaillard. Is the Amount of
Programmed Cell Death Affected by Genetic Diversity in Populations of
Chlamydomonas? SHSU Undergraduate Research Symposium, April 2015.

Kortney Hanson*, Alison Stephens*, and Anne R. Gaillard. Characterization of Novel
Plant Extracts for Bioactive Properties. SHSU Undergraduate Research
Symposium, April 2015.

Matthew R. Breuer*, Allyson R. Keathley*, and Anne R. Gaillard. Programmed Cell
Death is Distinct from Necrosis in *Chlamydomonas*. Beta Beta Beta Regional
Convention, Lake Texoma, OK, April 2015.

Allyson R. Keathley*^{\$}, Matthew R. Breuer*, and Anne R. Gaillard. Is the Amount of
Programmed Cell Death Affected by Genetic Diversity in Populations of
Chlamydomonas? Beta Beta Beta Regional Convention, Lake Texoma, OK, April
2015. (Honorable Mention Award)

Kortney Hanson*, Alison Stephens*, and Anne R. Gaillard. Characterization of Novel
Plant Extracts for Bioactive Properties. Beta Beta Beta Regional Convention,
Lake Texoma, OK, April 2015.

Matthew R. Breuer*^{\$}, Allyson R. Keathley*, and Anne R. Gaillard. Programmed Cell
Death is Distinct from Necrosis in *Chlamydomonas*. Texas Branch Meeting of
the American Society for Microbiology. New Braunfels, TX, March 2015.
(1st Place Award).

Allyson R. Keathley*^{\$}, Matthew R. Breuer*, and Anne R. Gaillard. Is the Amount of
Programmed Cell Death Affected by Genetic Diversity in Populations of
Chlamydomonas? Texas Branch Meeting of the American Society for
Microbiology. New Braunfels, TX, March 2015. (1st Place Award)

Martin J. Sebastian* and Anne R. Gaillard. A5 Double Mutant Strain of *Chlamydomonas*
reinhardtii Lacks the I1 Dynein Arm and has a Defective A-Kinase Anchoring
Protein (AKAP). New Braunfels, TX, March 2015.

Matthew R. Breuer*, Allyson R. Keathley*, and Anne R. Gaillard. Investigating the Adaptive Value of Programmed Cell Death in a Unicellular Organism. Texas Branch Meeting of the American Society for Microbiology. Houston, TX, November, 2014.

Allyson R. Keathley*, Matthew R. Breuer*, and Anne R. Gaillard. Searching for a p53-like Protein in *Chlamydomonas reinhardtii*. Texas Branch Meeting of the American Society for Microbiology. Houston, TX, November, 2014.

Katrina L. Thornton, Deborah Sewell*, and Anne R. Gaillard. Effects of 4-hydroxyacetophenone on *Chlamydomonas reinhardtii* mutants defective in motility and phototaxis. Texas Branch Meeting of the American Society for Microbiology. Houston, TX, November, 2014.

Bridget Munezero*, Terah Hardcastle, Sarah Moseley*, and Anne R. Gaillard. Identification of a p53-like Protein in *Chlamydomonas reinhardtii*. Beta Beta Beta Regional Conference, Lake Texoma, OK, April 2014.

Katrina L. Thornton, Deborah Sewell*, and Anne R. Gaillard. Effect of 4-hydroxyacetophenone on *Chlamydomonas reinhardtii* Mutants. Texas Branch Meeting of the American Society for Microbiology. New Braunfels, TX, April 2014.

Terah Hardcastle, Bridget Munezero*, and Anne R. Gaillard. Evidence for Programmed Cell Death in *Chlamydomonas reinhardtii*. American Society for Cell Biology, 53rd Annual Meeting, New Orleans, LA, December 2013.

Travis W. Hardcastle, Todd P. Primm, and Anne R. Gaillard. The Small Molecule Inhibitor, 4-hydroxyacetophenone, Alters Flagellar Dominance in *Chlamydomonas reinhardtii*. Texas Branch Meeting of the American Society for Microbiology. Waco, TX, October 2012.

Casey A. Hayslip, Anne R. Gaillard, and Donovan C. Haines. A Biochemical Analysis of the Quorum Sensing-Like Compounds Secreted by *Chlamydomonas reinhardtii* that Mimic and Interfere with the Quorum Sensing Pathway of *Pseudomonas aeruginosa*. Texas Branch Meeting of the American Society for Microbiology. Waco, TX, October 2012.

Austin A. Pearce*, Travis W. Hardcastle, Joshua D. Farthing*, and Anne R. Gaillard. 4-Hydroxyacetophenone Alters Flagellar Dominance and Decreases Axonemal Motility in *Chlamydomonas reinhardtii*. 15th International Conference on the Cell and Molecular Biology of *Chlamydomonas*, Potsdam, Germany, June 2012.

Austin A. Pearce*, Todd P. Primm, and Anne R. Gaillard. Select Acetophenones Disrupt *Chlamydomonas* Motility by Affecting Flagellar Motion. SHSU Undergraduate Research Symposium, Huntsville, TX, April 2012.

Terah L. McClendon, Aurora M. Nedelcu, and Anne R. Gaillard. Evidence for the presence of a p53-like protein in *Chlamydomonas reinhardtii*. Beta Beta Beta Regional Conference, Lake Texoma, OK, April 2011.

Austin A. Pearce*, Todd P. Primm, and Anne R. Gaillard. Acetophenones as Small Molecule Inhibitors of *Chlamydomonas* Motility. Beta Beta Beta Regional Conference, Lake Texoma, OK, April 2011.

Terah L. McClendon, Aurora M. Nedelcu, and Anne R. Gaillard. Evidence for a p53-like protein in *Chlamydomonas reinhardtii*. SHSU Department of Biological Sciences Retreat, April 2011.

Travis Hardcastle, Todd P. Primm, Anne R. Gaillard. Characterization of the Effect of 4-hydroxyacetophenone on *Chlamydomonas reinhardtii* Motility. Texas Branch Meeting of the American Society for Microbiology. Arlington, TX, November 2011.

Casey A. Hayslip, Anne R. Gaillard and, Donovan C. Haines. A Biochemical Analysis of the Quorum Sensing-Like Compounds Secreted by *Chlamydomonas reinhardtii*. Texas Branch Meeting of the American Society for Microbiology. Arlington, TX, November 2011.

Terah L. McClendon, Aurora M. Nedelcu, and Anne R. Gaillard. Molecular Analysis of Programmed Cell Death in the Unicellular Green Alga, *Chlamydomonas reinhardtii*: Evidence for a p53-like Protein. Texas Branch Meeting of the American Society for Microbiology. Arlington, TX, November 2011.

Terah L. McClendon, Aurora M. Nedelcu, and Anne R. Gaillard. Evidence for a p53-like Protein in the Unicellular Alga, *Chlamydomonas reinhardtii*. Beta Beta Beta Regional Conference, Lake Texoma, OK, April 2011.

Austin A. Pearce*, Todd P. Primm, and Anne R. Gaillard. Acetophenones as Small Molecule Inhibitors of *Chlamydomonas* Motility. Beta Beta Beta Regional Conference, Lake Texoma, OK, April 2011.

Austin A. Pearce*, Shakila K. Evans*, Todd P. Primm, and Anne R. Gaillard. 4-Hydroxyacetophenone and Related Compounds Induce Negative Phototaxis in *Chlamydomonas reinhardtii*. American Society for Cell Biology, 50th Annual Meeting, Philadelphia, PA, December 2010.

Terah L. McClendon, Aurora M. Nedelcu, and Anne R. Gaillard. Evidence for a p53-Like Protein in *Chlamydomonas reinhardtii*. Texas Branch Meeting of the American Society for Microbiology, San Marcos, TX, October, 2010.

Austin A. Pearce*, Shakila K. Evans*, Joshua D. Farthing*, Victoria Y. Alfaro*, Crystal P. Liles*, Todd P. Primm, and Anne R. Gaillard. Select Acetophenones Alter Flagellar Motility in *Chlamydomonas*. 14th International Conference on the Cell and Molecular Biology of *Chlamydomonas*, Norton, MA, June, 2010.

Anne R. Gaillard. Emphasizing Critical Thinking Skills for Biology Students when Laboratory Facilities are Unavailable. American Society for Microbiology Council on Undergraduate Education Meeting, San Diego, CA, May, 2010.

Victoria Y. Alfaro*, Todd P. Primm, and Anne R. Gaillard. Inhibition of *Chlamydomonas reinhardtii* Cell Motility by Acetophenones. Texas Branch Meeting of the American Society for Microbiology, New Braunfels, TX, April 2010.

Joshua D. Farthing*, Todd P. Primm, and Anne R. Gaillard. Effects of Hydroxyacetophenones on Gravitaxis of *Chlamydomonas reinhardtii*. Texas Branch Meeting of the American Society for Microbiology, New Braunfels, TX, April 2010.

Anne R. Gaillard. Programmed Cell Death in Unicellular Organisms. Texas Branch Meeting of the American Society for Microbiology, New Braunfels, TX, April 2010.

Austin A. Pearce*^{\$}, Shakila K. Evans*, Todd P. Primm, and Anne R. Gaillard. Induction of Negative Phototaxis in *Chlamydomonas* by Hydroxy- and Methoxyacetophenone Derivatives. Texas Branch Meeting of the American Society for Microbiology, New Braunfels, TX, April 2010.

Victoria Y. Alfaro*, Joshua D. Farthing*, Todd P. Primm, and Anne R. Gaillard. Use of a Gravitaxis Assay to Screen Acetophenones for Effects on Flagellar Motility in *Chlamydomonas*. Beta Beta Beta Regional Conference, Lake Texoma, OK, March 2010.

Austin A. Pearce*, Shakila K. Evans*, Todd P. Primm, and Anne R. Gaillard. Select Methoxy- and Hydroxyacetophenone Derivatives Modulate Flagellar Motility in *Chlamydomonas*. Beta Beta Beta Regional Conference, Lake Texoma, OK, March 2010.

Joshua D. Farthing*, Ashley D. Solmonson*, Vince Maresca*, and Anne R. Gaillard. Analysis of a cAMP-Dependent Protein Kinase (PKA) Mediated Signaling Pathway that Controls Motility of *Chlamydomonas* Flagella. Texas Branch Meeting of the American Society for Microbiology, Tyler, TX, November 2009.

Crystal P. Liles*, Jessica Belen-Rivera, and Anne R. Gaillard. DFDNB Protein Crosslinker Identifies a cGMP-Dependent Protein Kinase (PKG) Complex in *Chlamydomonas* Flagellar Axonemes. Texas Branch Meeting of the American Society for Microbiology, Tyler, TX, November 2009.

Terah L. McClendon, Aurora M. Nedelcu, and Anne R. Gaillard. Identification of a p53-like Protein in *Chlamydomonas reinhardtii*. Texas Branch Meeting of the American Society for Microbiology, Tyler, TX, November 2009.

Austin A. Pearce*^{\$}, Shakila K. Evans*, Todd P. Primm, and Anne R. Gaillard. Screening of Methoxy- and Hydroxyacetophenone Derivatives for Effects on Flagellar Motility in *Chlamydomonas reinhardtii*. Texas Branch Meeting of the American Society for Microbiology, Tyler, TX, November 2009.

Victoria Y. Alfaro*^{\$}, Joshua D. Farthing*, Ashley D. Solmonson*, Vincent Maresca*, Crystal Liles*, and Anne R. Gaillard. Phenotypic Analysis of a *Chlamydomonas reinhardtii* Double Mutant. Beta Beta Beta Regional Conference, Lake Texoma, OK, April 2009.

Shakila K. Evans*, Todd P. Primm, and Anne R. Gaillard. Acetophenones Inhibit Phototaxis in *Chlamydomonas reinhardtii*. Beta Beta Beta Regional Conference, Lake Texoma, OK, April 2009.

Joshua D. Farthing*, Ashley D. Solmonson*, and Anne R. Gaillard. cAMP-Dependent Protein Kinase (PKA) Signaling in *Chlamydomonas* Flagellar Axonemes. Beta Beta Beta Regional Conference, Lake Texoma, OK, April 2009.

Terah L. McClendon, Aurora M. Nedelcu, and Anne R. Gaillard. Analysis of Programmed Cell Death in *Chlamydomonas reinhardtii*. Beta Beta Beta Regional Conference, Lake Texoma, OK, April 2009.

Shakila K. Evans*, Todd P. Primm, and Anne R. Gaillard. Testing acetophenones as novel inhibitors of flagellar motility in *Chlamydomonas reinhardtii*. Texas Branch Meeting of the American Society of Microbiology, New Braunfels, TX, March 2009.

Joshua D. Farthing*^{\$}, Ashley D. Solmonson*, Vincent Maresca*, and Anne R. Gaillard. Analysis of a cAMP-dependent protein kinase (PKA) signaling pathway in *Chlamydomonas* flagella. Texas Branch Meeting of the American Society of Microbiology, New Braunfels, TX, March 2009.

Shakila K. Evans*, Prudence Ibezim*, Todd P. Primm, and Anne R. Gaillard. Phototaxis-based screening of acetophenones as novel inhibitors of flagellar

motility in *Chlamydomonas reinhardtii*. Texas and South Central Branch Meeting of the American Society of Microbiology, Austin, TX, November 2008.

Joshua D. Farthing*, Vince Maresca*, and Anne R. Gaillard. Dissection of a protein kinase A (PKA)-mediated signaling pathway in *Chlamydomonas reinhardtii* flagella. Texas and South Central Branch Meeting of the American Society of Microbiology, Austin, TX, November 2008.

Terah L. McClendon* and Anne R. Gaillard. Pharmacological analysis of cGMP-dependent protein kinase (PKG) inhibition on flagellar motility. Texas and South Central Branch Meeting of the American Society of Microbiology, Austin, TX, November 2008.

Belen-Rivera, J., A. Solmonson*, V. Maresca*, T. McClendon*, J. Farthing*, V. Alfaro*, and A.R. Gaillard. Dissection of cyclic nucleotide signaling pathways in flagellar axonemes of *Chlamydomonas*. EMBO Workshop on the Cell and Molecular Biology of *Chlamydomonas*, Hyères-les-Palmiers, France, May 2008.

Williams, J. K., A. Gaillard, C. Hargrave, and W. I. Lutterschmidt. Multi-variant analysis of invasive plants and land condition on the biodiversity of fish assemblages with the Rio Grande. Southwestern Association of Naturalists, Memphis, TN, April 2008.

Belen-Rivera, J., B. Verhalen*, A.D. Solmonson*, and A.R. Gaillard. Biochemical analysis of an axonemal cGMP-dependent protein kinase (PKG) in *Chlamydomonas reinhardtii*. Texas Branch Meeting of the American Society of Microbiology, New Braunfels, TX, March 2008.

Farthing, J.*, A. Solmonson*, V. Maresca*, and A.R. Gaillard. Motility analysis of a *Chlamydomonas reinhardtii* double mutant. Texas Branch Meeting of the American Society of Microbiology, New Braunfels, TX, March 2008.

Belen-Rivera, J., B. Verhalen*, A.D. Solmonson*, and A.R. Gaillard. Characterization of an axonemal cGMP-dependent protein kinase (PKG) in *Chlamydomonas reinhardtii*. 47th Annual Meeting of the American Society for Cell Biology, Washington, DC, December 2007.

Williams, J. K., A.R. Gaillard and W. I. Lutterschmidt. Effects of invasive plants on the biodiversity of fish assemblages with the Rio Grande. Invasive Plants of Texas Conference, Lady Bird Wildflower Research Center, TX, November 2007.

Williams, J. K., A.R. Gaillard and W. I. Lutterschmidt. Land use practices and its effect on ecosystem dynamics along the Rio Grande. SAWC Conference, South Padre

Island, TX, May 2007.

Solmonson, A.D.* Verhalen, B.* , and A.R. Gaillard. Biochemical Characterization of cGMP-dependent Protein Kinase (PKG) in *Chlamydomonas reinhardtii* flagellar axonemes. Beta Beta Beta Regional Conference, Lake Texoma, OK, March 2007.

Verhalen, B.* , A.D. Solmonson*, and A.R. Gaillard. The flagellar axoneme of *Chlamydomonas* contains a cGMP-dependent protein kinase (PKG) that regulates axonemal motility. 12th International Conference on the Cell and Molecular Biology of *Chlamydomonas*, Portland, OR, May 2006.

Verhalen, B.* and A.R. Gaillard. The *Chlamydomonas* flagellar axoneme contains a cGMP-dependent protein kinase that regulates axonemal motility. 45th Annual Meeting of the American Society for Cell Biology, San Francisco, CA, December 2005.

Wirschell, M., F. Zhao*, D. Diener, A.R. Gaillard, C. Yang, P. Yang, J. Rosenbaum, W. S. Sale. The flagellar A-Kinase Anchoring Protein, RSP3, is a Dimer. 45th Annual Meeting of the American Society for Cell Biology, San Francisco, CA, December 2005.

Gaillard, A.R., J.M. Rhea*, M. Shaw, and W.S. Sale. RSP3-anchoring of PKA in *Chlamydomonas* axonemes is required for the regulation of PKA activity and normal flagellar motility. 43rd Annual Meeting of the American Society for Cell Biology. San Francisco, CA, December, 2003.

Rhea, J.M.* and A.R. Gaillard. PKI restores motility to *Chlamydomonas* cells defective in a flagellar AKAP. Georgia Academy of Science Annual Meeting, Waleska, GA, 2003.

Gaillard, A.R., J.M. Rhea*, and W.S. Sale. Anchoring of axonemal PKA is required for regulation of flagellar motility in *Chlamydomonas*. 42nd Annual Meeting of the American Society for Cell Biology, San Francisco, CA, December, 2002.

SERVICE TO THE UNIVERSITY

2017	Member, Associate Vice Provost Search Committee
2015, 2017	Evaluator, Graduate Dissertation and Thesis Awards
2017	Member, College of Health Sciences Dean Search Committee
2016-present	Member, Medical and Dental School Evaluation Committee
2016-present	Mentor, McNair Scholar (William Perez)
2016	Member, Ad Hoc Academic Advising Committee
2015	Member, Ad Hoc Graduate Awards Committee
2015	Member, Ad Hoc Catalog Advisory Committee

2014	Chair, Chair of Kinesiology Search Committee
2014	Member, SEM Bookstore Committee
2013	Member, Ad Hoc Core Curriculum Assessment Committee
2013-2017	Co-Organizer, ASET-STEM Career Fair
2013	Member, College of Health Sciences Organizing Committee
2012-2013	Member, Career Services Advisory Board
2012	Moderator, Undergraduate Research Symposium
2012	Member, Dean of Allied Health Search Committee
2012	Guest Lecturer, English Language Institute
2012-2014	Member and Subcommittee Chair, Ad Hoc Core Curriculum Committee
2011-present	Member, Council of Associate Academic Deans
2011-2012	Member, Dean of College of Sciences Search Committee
2011-2016	Member, Biology Building Planning Committee
2011-2016	Member, Forensic Science Advisory Committee
2010, 2011, 2017	Reviewer, M.S. Forensic Science Capstone Projects
2010, 2017	Mentor, Bearkat Camp
2010	Member, Alcohol and Drug Abuse Initiative Alcohol Summit Planning Committee
2010	Member, Exercise Scientist Search Committee, Health and Kinesiology
2005-2009	Member, Athletics Advisory Council
2006-2008, 2011-present	Member, Graduate Council
2005-present	Honors Program, 19 honors contracts completed

SERVICE TO THE COLLEGE

2014-2015	Member, Biology Laboratory Building Planning Committee
2013-2014	Chair, College of Sciences Research Themes Committee
2012-present	Facilitator, College of Science and Engineering Technology Undergraduate Research Awards Committee
2012-2013	Facilitator, College of Sciences Mission and Vision Committee

SERVICE TO THE DEPARTMENT

2018	Member, Ad Hoc Biology Degree Programs Committee
2018	Participant and Algae Expert, Bio Blitz
2018	Member, Ad Hoc Core Concepts Committee
2018	Member, Ad Hoc Capstone Course Committee
2017	Member, Cell and Molecular Biologist Search Committee
2017	Member, A&P Lecturer Search Committee
2017-present	Faculty Advisor, SHAMOS
2016-present	Advising Coordinator, Office of Pre-Health Professional Advising
2016-present	Member, Budget Committee

2014-present	Member, Biomedical Sciences Committee (Ad Hoc)
2013	Member, Ad Hoc Committee on M.A. Biology Program
2012-2013	Member, Ad Hoc Committee on Undergraduate Student Assessment
2012-2013	Chair, Biomedical Sciences Committee
2011-2012	Chair, Molecular Biologist Search Committee
2011	Chair, Developmental Biologist Search Committee
2010-2012	Member, New Biology and Nursing Building Planning Committee
2010-2016	Faculty Advisor, Student Chapter of American Society for Microbiology
2010-2016	Faculty Advisor, Tri-Beta Biological Honor Society
2010-2011	Member, Distance Learning Committee
2008-2009	Judge, BIO 520 Graduate Student Research Posters
2008, 2009, 2012, 2013, 2016	Member, FES Validation Committee
2007-2010	Graduate Coordinator (Chair, Graduate Committee)
2007-2008	Member, Microbiologist Search Committee
2007-2008	Member, Geneticist Search Committee
2006-2012	Member, Introductory Cell Biology Committee
2006-2007	Member, Contemporary Biology Committee
2006-2008,	Member, Curriculum Committee
2013-present	
2005-present	Faculty Advisor, Biological Sciences Graduate Student Organization
2005-present	Member, Graduate Committee
2005	Member, Plant Molecular Biologist Search Committee
2005	Member, Developmental Biologist Search Committee
2005	Member, Strategic Planning Committee

SERVICE TO THE PROFESSION

2018	Undergraduate Biology Program External Reviewer, UTPB
2016, 2017	NSF Panel
2016-present	CCAS Committee on Comprehensive Institutions
2016-present	CCAS Committee on Gender Issues
2016	Invited Speaker, Department of Physics, SHSU
2015, 2016	Manuscript Reviewer, BMC Cell Biology
2013	Invited Speaker, Department of Biology, St. Edwards University
2013-present	Manuscript Reviewer, PLoS One
2011-present	Ad Hoc Reviewer, National Science Foundation
2011-present	Manuscript Reviewer, <i>Chemical Biology and Drug Design</i>
2011-2012	Member, Lonestar College-Montgomery Biotechnology Advisory Board
2011	Invited Speaker on Programmed Cell Death in Unicellular Organisms, Lonestar College-Montgomery, The Woodlands, TX

2009	Invited Speaker on <i>Chlamydomonas</i> Flagellar Motility, Lonestar College-Montgomery, The Woodlands, TX
2009	Invited Speaker on Stem Cells and Cloning, Lonestar College-Montgomery, The Woodlands, TX
2008-present	Judge, student presentations, American Society for Microbiology Texas Branch Meetings and Tri-Beta Regional Conventions

SERVICE TO THE COMMUNITY

2015-2018	Panel Presenter, Houston Hispanic Forum
2016	Host, Power Set Math and Science Girls Club from Palacios High School, Huntsville, TX
2011	Science Fair Judge, Sam Houston Elementary, Huntsville, TX
2006, 2007	Science Fair Judge, SCI://TECH, The Woodlands, TX
2006	Invited Speaker on DNA and Cloning, American Association of University Women, Huntsville, TX
2006	Invited Speaker on Stem Cells and Cloning, Unitarian Universalist Fellowship, Huntsville, TX
2006	Invited Speaker on Stem Cells and Cloning, Cloud Nine Café, Huntsville, TX
2006	Invited Speaker on Stem Cells and Cloning, Rotary Club, Huntsville, TX

GRADUATE STUDENTS MENTORED

2018-present	Irma Zia	Committee Member
2017-present	Alexandria Brown	Committee Member
2017-present	Caroline Obkirchner	Committee Member
2016-2018	Matthew Breuer (M.S. Biology, December 2018)	Major Advisor
2016-present	Zak Carroll	Committee Member
2016	Osama Qureshi	Committee Member
2015-present	Kallie Davis	Committee Member
2015-present	David Lollar	Committee Member
2015-2017	Celso Catumbela (M.S. Biology, May 2017)	Major Advisor
2015-2016	Berra Koskulu (M.S. Biology, August 2016)	Committee Member
2015	Douja Chamseddine	Committee Member
2015-2018	Amy Sorensen (Ph.D. Forensic Science, May 2018)	Committee Member
2015-2017	Subash Ghimire	Major Advisor
2014-2016	Chelcy Brumlow (M.S. Biology, May 2016)	Committee Member
2014-2016	Samantha Alper (M.S. Biology, December 2016)	Committee Member
2014-2016	Damilola Omotajo (M.S. Biology, May 2016)	Committee Member
2013	Kendall Stelwagen (M.S. Dietetics, December 2013)	Committee Member
2012-2017	Cindy Botero (M.S. Biology, December 2017)	Committee Member
2012-2014	Bat-Erdene Myagmarjav	Committee Member

2011-2014	Daniel Haarmann	Committee Member
2011-2014	Keri Powell (M.S. Biology, May 2014)	Committee Member
2011-2014	Trina Thornton	Major Advisor
2011-2012	Richard Lewis (M.S. Biology, May 2012)	Major Co-Advisor
2011-2012	Jamie McCann (M.S. Biology, May 2012)	Committee Member
2010-2013	Travis Hardcastle (M.S. Biology, August 2013)	Major Advisor
2010-2013	Casey Hayslip (M.S. Biology, December 2013)	Major Co-Advisor
2010-2011	Anne Peters (M.S. Biology, August 2011)	Committee Member
2010-2011	Sam Bonge (M.S. Biology, December 2011)	Committee Member
2009-2011	Richard Lewis (M.S. Biology, May 2012)	Committee Member
2008-2012	Terah McClendon (M.S. Biology, May 2012)	Major Advisor
2008-2010	Lin Lin (M.S. Biology, August 2010)	Committee Member
2008-2010	Alison Garner (M.S. Biology, August 2010)	Committee Member
2007-2009	Rekha Raghavendra (M.S. Biology, August 2009)	Committee Member
2007	Kira Renneberg (M.A. Biology, December 2007)	Committee Member
2006-2008	Jessica Belen-Rivera (M.S. Biology, August 2008)	Major Advisor
2006-2007	Robert Faris (M.S. Biology, May, 2007)	Committee Member
2005-2007	Steven Koether (M.S. Biology, May 2007)	Committee Member
2005-2006	Sian Escobar	Committee Member
2005	Sean Daly (M.A. Biology, December 2005)	Major Advisor

ADVISOR FOR INDEPENDENT STUDY PROJECTS

2018	<u>Tyler Musgrove</u> —BIOL 4095: Testing for Horizontal Gene Transfer in <i>Chlamydomonas</i> Cells Undergoing Programmed Cell Death
2016	<u>Victoria Adeniran</u> —BIOL 4095: The effects of the chemotherapy drug KP1019 on <i>Chlamydomonas</i>
2016	<u>Matthew Breuer</u> —BIOL 4095: Using Two Dimensional Gel Electrophoresis to Isolate a Potential p53-like Protein
2015	<u>Allyson Keathley</u> —BIOL 4095: Characterization of DNase-regulated DNA laddering during <i>Chlamydomonas</i> programmed cell death (PCD) (also an Honors Thesis)
2014	<u>Martin Sebastian</u> —BIOL 4095: Dissection of a motility-regulating signaling pathway in the ciliary axoneme of <i>Chlamydomonas</i> .
2010	<u>Victoria Alfaro</u> —BIO 495: Gravitaxis as a mechanism to screen methoxyacetophenone derivatives for effects on <i>Chlamydomonas</i> flagellar motility
2010	<u>Sam Bonge</u> —BIO 595: Cytotoxicity analysis of peptide secretions from <i>Hyla versicolor</i> and <i>Rana clamitans</i>
2010	<u>Joshua Farthing</u> —BIO 495: Gravitaxis as a mechanism to screen hydroxyacetophenone derivatives for effects on <i>Chlamydomonas</i> flagellar motility

- 2009 Hailey Hale—BIO 495: Concentration-dependent effects of protein kinase G (PKG) inhibitors on *Chlamydomonas* flagellar motility
- 2009-2012 Austin Pearce—BIO 495: Screening of methoxy- and hydroxyacetophenone derivatives for effects on flagellar motility in *Chlamydomonas* (also an Honors Thesis)
- 2008 Shakila Evans—BIO 495: Screening of a chemical library for *Chlamydomonas* motility inhibitors
- 2008 Prudence Ibezim—BIO 495: Screening of a chemical library for *Chlamydomonas* motility inhibitors
- 2008 Crystal Liles—BIO 495: Characterization of flagellar motility phenotype in *Chlamydomonas* double mutants
- 2008 Terah McClendon—BIO 495: Pharmacological analysis of cGMP-dependent protein kinase on *Chlamydomonas* flagellar motility
- 2007 Vince Maresca—BIO 495: Genetic crosses and progeny analysis of *Chlamydomonas* motility mutants
- 2006 Ashley Solmonson—BIO 495: Biochemical characterization of PKG in *Chlamydomonas* flagella
- 2005 Brandy Verhalen—BIO 495: Investigation of the role of a cGMP-dependent kinase (PKG) in the regulation of *Chlamydomonas* flagellar motility
- 2005 Sean Daly—BIO 595: Changes in hematological properties of bullfrogs (*Rana catesbeiana*) over storage time

PROFESSIONAL DEVELOPMENT

- 2018 SHSU Teaching and Learning Conference
- 2017 Council of Colleges of Arts and Sciences (CCAS) National Meeting, Denver, CO
- 2017 SHSU Teaching and Learning Conference
- 2016 Council of Colleges of Arts and Sciences (CCAS) National Meeting, San Diego, CA
- 2015 Council of Colleges of Arts and Sciences (CCAS) National Meeting, Washington, DC
- 2015 SHSU Teaching and Learning Conference
- 2015 Texas Deans of Liberal Arts and Sciences (TDLAS) Meeting, SHSU
- 2014 Council of Colleges of Arts and Sciences (CCAS) National Meeting, San Antonio, TX
- 2014 Texas Deans of Liberal Arts and Sciences (TDLAS) Meeting, Tarleton State University, Stephenville, TX
- 2013 Texas Deans of Liberal Arts and Sciences (TDLAS) Meeting, SHSU
- 2013 COS Teaching and Learning Workshop, SHSU
- 2013 PACE Teaching Conference, SHSU
- 2013 Splash: Workshop on Project Based Learning, SHSU
- 2012 Council of Colleges of Arts and Sciences (CCAS) National Meeting, Seattle, WA

2012	CCRI Science Faculty Collaborative Workshop, SHSU
2012	SHSU Faculty Seminar in Writing: Writing in the Disciplines
2011	Genome Consortium for Active Teaching (GCAT) Workshop on Synthetic Biology (A workshop for educators on synthetic biology), Missouri Western State University, St. Joseph, MO
2010	American Society for Microbiology Council on Undergraduate Education Annual Meeting, San Diego, CA
2010	Dolan DNA Learning Center: Follow-up Workshop on Silencing Genomes, Houston, TX
2010	Dolan DNA Learning Center Workshop: DNA Subway (A workshop for biology educators on gene annotation), Austin, TX
2009	Dolan DNA Learning Center Workshop: Silencing Genomes (A workshop for biology educators on RNA interference), Houston, TX
2009	UT-Houston Health Science Center Genomics Short Course: genomics in medicine and public health, Houston, TX
2004	American Society for Cell Biology Education Workshop: Learn how to make your course a BLAST. (Integration of bioinformatics databases with undergraduate teaching), Washington, DC

COURSES TAUGHT

Sam Houston State University

BIOL 1408	Contemporary Biology
BIOL 2440	Introductory Cell Biology
BIOL 4110	Undergraduate Seminar
BIOL 4490	Cell Biology
BIOL 4480	Molecular Biology
BIOL 4493	Endocrinology
BIOL 5364	Cell Structure and Physiology
BIOL 5394	Cancer Biology
BIOL 5394	Biochemical Analysis of Proteins

Texas A&M University

BIOL 111	Introductory Biology I
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University of North Georgia

BIOL 1107	Principles of Biology I
BIOL 1108	Principles of Biology II
BIOL 3320	Genetics
BIOL 3430	Cell Biology

FORMER UNDERGRADUATE LABORATORY MEMBERS

Victoria Adeniran	
Victoria Alfaro	B.S.N. Program Student, University of Texas, HHSC
Ashley Ansley	Pharmacy School Student, Vanderbilt University
Oscar Bartlet	
Simon Christie	University of Florida, Law School Graduate
Shakila Evans	M.S. Biology Graduate, University of North Texas
Joshua Farthing	U.S Air Force
Sonia Gonzales	
Brenda Gutierrez	
Hailey Hale	
Kortney Hanson	University of Houston Pharmacy Student
Prudence Ibezim	
Allyson Keathley	Texas Tech University Medical School
Paige Lambert	
Crystal Liles	
Vince Maresca	Employed by Kelly Scientific
Sarah Moseley	Texas College of Osteopathic Medicine Student
Bridget Munezero	SHSU Nursing Student
Austin Pearce	South Dakota National Guard
Jeanne Rhea	Ph.D. Program in Genetics Graduate, University of Georgia
Martin Sebastian	
Deborah Sewell	
Ashley Simien	
Ashley Solmonson	Post-Doctoral Associate, UT Southwestern
Alison Stephens	High School Science Teacher, Spring, Texas
Cheramie Trahan	Biological Sciences Instructor, SHSU
Andres Urrutia	Paramedic, Conroe, Texas
Brandy Verhalen	Research Scientist, UT Southwestern

FORMER GRADUATE LABORATORY MEMBERS

Jessica Belen-Rivera	M.S. Biology, 2008 Research Assistant for Reagent Chemical & Research
Matthew Breuer	M.S. Biology, 2018 Ph.D. Program at Texas A&M University
Celso Catumbela	M.S. Biology, 2017 Ph.D. Program at the University of Texas-Houston
Sean Daly	M.A. Biology, 2005 Environmental Scientist for Burns & McDonnell
Subash Ghimire	Ph.D. Program at Louisiana State University

Travis Hardcastle	M.S. Biology, 2013 Associate Scientist at Dharmacon, Inc.
Casey Hayslip	M.S. Biology, 2013 Huntsville Memorial Hospital Pharmacy
Rick Lewis	M.S. Biology, 2012 Ph.D. Program in Criminology, SHSU
Terah McClendon	M.S. Biology, 2012 Quality Assurance Coordinator at Colorado Cancer Research Program
Trina Thornton	Office of Graduate Admissions, SHSU

CURRENT LABORATORY MEMBERS

Armon Amini (undergraduate student)
Devon Asher (undergraduate student)
Bianca Gonzalez (undergraduate student)
Tyler Musgrove (undergraduate student)
William Perez (undergraduate student and McNair Scholar)