# TAMARA L. DAVIS

Eleanor A. Bliss Professor of Biology Bryn Mawr College 101 N. Merion Avenue Bryn Mawr, PA 19010-2899 e-mail: tdavis@brynmawr.edu 610-526-5065, office 610-526-5086, fax

### **EDUCATION**

- Ph.D., December 1996, University of California at Berkeley, CA, Molecular & Cell Biology.
- B.A., June 1991, *cum laude*, University of California at San Diego, CA, Molecular Biology.

### **PROFESSIONAL EXPERIENCE**

- July 2018 present, Program Director, Biochemistry & Molecular Biology, Bryn Mawr College, Bryn Mawr, PA.
- September 2014-present, Professor, Department of Biology, Bryn Mawr College, Bryn Mawr, PA, molecular analysis of mechanisms associated with DNA methylation acquisition and maintenance at imprinted genes in mouse.
- June 2022-July 2023 and June 2009-June 2015, Chair, Department of Biology, Bryn Mawr College, Bryn Mawr, PA.
- September 2005-August 2014, Associate Professor, Department of Biology, Bryn Mawr College, Bryn Mawr, PA, analysis of epigenetic marks associated with imprinted genes in mouse.
- January 2000-August 2005, Assistant Professor, Department of Biology, Bryn Mawr College, Bryn Mawr, PA, establishment of imprinting in the mouse germline.
- February 1997-December 1999, postdoctoral fellow, laboratory of Dr. Marisa S. Bartolomei, HHMI and Department of Cell and Developmental Biology, University of Pennsylvania School of Medicine, Philadelphia, PA, molecular mechanism of genomic imprinting in mice.
- August 1991-December 1996, graduate student, laboratory of Dr. Barbara J. Meyer, Department of Molecular and Cell Biology, University of California at Berkeley, CA, <u>thesis title</u>: The role of SDC-3 in sex determination and in assembling the *C. elegans* dosage compensation complex.
- January 1989-July 1991, undergraduate research, laboratory of Dr. Donald R. Helinski, Department of Biology and Center for Molecular Genetics, University of California at San Diego, La Jolla, CA, promoter analysis of the stabilization locus of the broad host range plasmid RK2.

### SELECTED GRANTS AND AWARDS

- August 2020-July 2024, National Science Foundation grant, MCB-2024342, in the amount of \$386,397. Project title: RUI: Mechanisms that influence DNA methylation maintenance at imprinted genes in mouse.
- June 2020, Eleanor A. Bliss Professor of Biology.
- April 2019, Data Science Research grant, Bryn Mawr College, \$5000.
- August 2015-July 2019, National Science Foundation Grant, MCB-1514600, in the amount of \$319,516. Project title: RUI: Analysis of epigenetic and transcriptional mechanisms regulating genomic imprinting in mouse.
- May 2015, McPherson Award for Excellence, Bryn Mawr College, \$7500.
- July 2014, Outstanding Mentor Award, Council on Undergraduate Research, Biology Division.
- May 2012-April 2015, National Science Foundation Grant, MCB-1157819, in the amount of \$283,392. Project title: RUI: Analysis of epigenetic modifications regulating genomic imprinting in mouse.

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- February 2011. Award from Faculty Research Fund, Bryn Mawr College, \$5000.
- February 2010, Award from Faculty Research Fund, Bryn Mawr College, \$4000.
- January 1, 2009-December 31, 2010, Pennsylvania Department of Health Commonwealth Universal Research Enhancement program, in the amount of \$12,570. Title: Analysis of epigenetic modifications at imprinted loci in mouse.
- March 2008-February 2009, National Institutes of Health AREA Grant supplement, 3R15HD041444 -02S1, in the amount of \$56,661. Title: Developmental Analysis of Imprinting Mark Modifications.
- May 15, 2005, Rosalyn R. Schwartz Teaching Award, Bryn Mawr College, \$1000.
- March 2005-February 2008, National Institutes of Health AREA Grant, 2R15HD041444-02, in the amount of \$213,860. Project title: Developmental Analysis of Imprinting Mark Modifications.
- Summer 2004, Summer Stipend Award, Bryn Mawr College Provost's Office, \$2000.
- May 2004, recipient of LI-COR Biosciences Genomics Education Matching Fund Program to fund a DNA sequencer for use in the classroom and research laboratories, \$25,000.
- Summer 2003, Summer Stipend Award, Bryn Mawr College Provost's Office, \$2000.
- September 2002-May 2003, Junior Faculty Research Leave supported in part through the Elizabeth B. Jackson Biology Fund.
- March 2002-February 2005, National Institutes of Health AREA Grant, 1R15HD041444-01, in the amount of \$126,618.
- September 1998-December 1999, National Institutes of Health NRSA Postdoctoral Fellowship.
- February 1997-August 1998, Howard Hugest Medical Institute Postdoctoral Fellow.
- 1993, Outstanding Graduate Student Instructor Award, University of California, Berkeley, Department of Molecular and Cell Biology, MCB140: Genetics.
- 1990-1991, Howard Hughes Medical Institute Summer Research/Honors Thesis Fellowship, University of California, San Diego.
- 1990-1991, President's Undergraduate Fellowship, University of California, San Diego.

# **ON-GOING RESEARCH PROJECTS**

- Oxidative bisulfite and DNA sequence analysis to investigate hydroxymethylation status comprehensively across imprinted loci to assess its relationship to low DNA methylation fidelity and methylation asymmetry at paternally and maternally methylated imprinted loci in mouse.
- Analysis of how DNA methylation loss in Dnmt1 mutant mouse embryos impacts gene expression.
- Analysis of CpG dyad methylation patterns at non-imprinted loci. Manuscript in preparation.
- Temporal analysis of DNA methylation at the *Rasgrf1* locus to delineate the extent of the differentially methylated region that is retained during pre-implantation development in mouse. Manuscript in preparation.

## **PUBLICATIONS**

\*denotes undergraduate student co-author

- Payne C\*, Forestier S\*, Pathmanabhan C\*, Tang C\*, Kardhashi E\*, Oalican I\* and Davis TL, Hemimethylation is a unique feature of secondary DMRs associated with imprinted genes not observed at non-imprinted loci, in preparation.
- Sumner K\*, Shields R\*, Raymond N\*, Vlasova E\*, Joseph R\* and Davis TL, Defining differentially methylated regions associated with imprinted loci, in preparation.
- Regmi S\*, Giha L\*, Ali A\*, Siebels-Lindquist C\* and Davis TL, 2023, Methylation is maintained specifically at imprinting control regions but not other DMRs associated with imprinted genes in

mice bearing a mutation in the *Dnmt1* intrinsically disordered domain, *Frontiers in Cell & Developmental Biology* **11**. DOI: 10.3389/fcell.2023.1192789.

- Nechin J\*, Tunstall E\*, Raymond N\*, Hamagami N\*, Pathmanabhan C\*, Forestier S\* and Davis TL, 2019, Hemimethylation of CpG dyads is characteristic of secondary DMRs associated with imprinted loci and correlates with 5-hydroxymethylcytosine at paternally methylated sequences, *Epigenetics & Chromatin*, 12(1):64. DOI: 10.1186/s13072-19-0309-2.
- Guntrum M\*, Vlasova E\* and Davis TL, 2017, Asymmetric DNA methylation of CpG dyads is a feature of secondary DMRs associated with the *Dlk1/Gtl2* imprinting cluster in mouse, *Epigenetics & Chromatin*, **10**:31. DOI 10.1186/s13072-017-0138-0.
- Gagne A\*, Hochman A\*, Qureshi M\*, Tong C\*, Arbon J\*, McDaniel K\* and Davis TL, 2014, Analysis of DNA methylation acquisition at the imprinted *Dlk1* locus reveals asymmetry at CpG dyads, *Epigenetics & Chromatin*, 7(9).
- Nowak K\*, Stein G\*, Powell E\*, He LM\*, Naik S\*, Morris J\* and Davis TL, 2011, Establishment and maintenance of paternal allele-specific methylation at the imprinted mouse *Gtl2* locus, *Epigenetics* **6**(8): 1012-1020.
- Dockery L\*, Gerfen J\*, Harview C\*, Rahn-Lee C\*, Horton R\*, Park Y\* and Davis TL, 2009, Differential methylation persists at the mouse *Rasgrf1* DMR in tissues displaying monoallelic and biallelic expression, *Epigenetics* 4(4): 241-247.
- Bhogal B\*, Arnaudo A\*, Dymkowski A\*, Best A\* and Davis TL, 2004, Methylation at mouse *Cdkn1c* is acquired during post-implantation development and functions to maintain imprinted expression, *Genomics* **84**(6): 961-970.
- Davis TL, Yang GJ\*, McCarrey J and Bartolomei MS, 2000, The *H19* methylation imprint is erased and reestablished differentially on the parental alleles during male germ cell development, *Human Molecular Genetics* **9**(19): 2885-2894.
- Dawes HE, Berlin DS, Lapidus DM, Nusbaum C, Davis TL and Meyer BJ, 1999, SDC-2 triggers hermaphrodite sexual development and targets nematode dosage compensation machinery to X chromosomes, *Science* **284**(5421): 1800-1804.
- Davis TL, Trasler JM, Moss SB, Yang GJ\* and Bartolomei MS, 1999, Acquisition of the *H19* methylation imprint occurs differentially on the parental alleles during spermatogenesis, *Genomics* **58**(1): 18-28.
- Davis TL, Tremblay KD and Bartolomei MS, 1998, Imprinted expression and methylation of the mouse *H19* gene are conserved in extraembryonic lineages, *Developmental Genetics* **23**(2): 111-118.
- Davis TL and Meyer BJ, 1997, SDC-3 coordinates the assembly of a dosage compensation complex on the nematode X chromosome, *Development* **124**(5): 1019-1031.
- Davis TL, Helinski DR and Roberts RC, 1992, Transcription and autoregulation of the stabilizing functions of broad-host-range plasmid RK2 in *Escherichia coli*, *Agrobacterium tumefaciens* and *Pseudomonas aeruginosa*, *Molecular Microbiology* **6**(14): 1981-1994.

# ABSTRACTS AND INVITED LECTURES

\*denotes undergraduate student co-author

- Davis TL and Ellis-Pugh J\*, Lo J\*, Link C\*, Gibson S\*, Oalican I\*, Kesack J\*, Saulnier J\* and Raymond N\*, August 6-11, 2023, abstract and <u>poster</u>, Gordon Research Conference on Epigenetics, Determining the cause of hemimethylation at secondary DMRs associated with imprinted genes.
- Davis, TL, September 27, 2021, <u>research talk</u>, Bryn Mawr College, Unwinding the mysteries of DNA methylation.
- Davis TL, April 14, 2021, <u>invited speaker</u>, University of Pennsylvania Biomedical Postdoctoral Program Career workshop: Pursuing an Academic Career.

- Davis TL, March 10, 2020, <u>invited speaker</u>, University of Pennsylvania Biomedical Postdoctoral Program Career workshop: Pursuing an Academic Career.
- Davis TL, Nechin J\*, Tunstall E\*, Raymond N\*, Hamagami N\*, Pathmanabhan C\* and Forestier S\*, July 21-26, 2019, abstract and <u>poster</u>, Gordon Research Conference on Epigenetics, High levels of hemimethylation at secondary DMRs associated with imprinted genes correlates with 5-hydroxymethylcytosine only at paternally methylated sequences.
- Davis TL, November 7, 2018, <u>invited talk</u>, St. Joseph's University, Winding your way through the double helix of life as a female scientist.
- Davis TL, Nechin J\*, Tunstall E\*, Hamagami N\*, Pathmanabhan C\* and Forestier S\*, July 30-August 4, 2017, abstract and <u>poster</u>, Gordon Research Conference on Epigenetics, Secondary DMRs associated with imprinted loci are characterized by high levels of hemimethylation and 5hydroxymethylcytosine.
- Davis TL, Vlasova E\*, Guntrum M\* and Arbon J\*, August 2-7, 2015, abstract and <u>poster</u>, Gordon Research Conference on Epigenetics, Analysis of hemimethylation and 5hmC content at primary and secondary DMRs associated with imprinted loci.
- Vlasova E\* and Davis TL, September 19, 2014, <u>invited talk</u>, KIM talk at President's inauguration at Bryn Mawr College, Guiding growth: from genes to mentorship finding the A to match your T.
- Davis TL, February 6, 2014, <u>invited panelist</u>, University of Pennsylvania Career Services, Faculty Conversations: Preparing for Campus Interviews for Academic Jobs Science, Mathematics and Engineering.
- Davis TL, Fielder S\* and Schnellbacher S\*, August 4-9, 2013, abstract and <u>poster</u>, Gordon Research Conference on Epigenetics, Analysis of modified histone distribution at the imprinted *Rasgrf1* locus using allele-specific qPCR following ChIP.
- Davis TL, March 19, 2013, <u>invited talk</u>, The Quadrangle, Haverford, PA, Beyond DNA: What else controls our fate?
- Davis TL, Gagne A\*, Qureshi M\*, McDaniel K\* and Bates J\*, August 12-15, 2012, abstract and poster, 45<sup>th</sup> Annual Meeting of the Society for the Study of Reproduction, Comparative analysis of DNA methylation acquisition at the imprinted *Gtl2/Dlk1* locus during mouse embryonic development.
- McNelly L\*, Fielder S\* and Davis TL, May 11-12, 2012, abstract and <u>poster</u>, 2012 Mid-Atlantic Society for Developmental Biology Meeting, Analysis of epigenetic modifications at the imprinted *Rasgrf1* locus in mouse.
- Baumann B\*, Davis TL and Brodfuehrer PD, November 12-16, 2011, abstract and <u>poster</u>, Neuroscience 2011, Identification of AMPA receptor in *Hirudo medicinalis*.
- Davis TL and Marlow S\*, August 7-12, 2011, abstract and <u>poster</u>, Gordon Research Conference on Epigenetics, Analysis of epigenetic modifications at the imprinted *Rasgrf1* locus in mouse.
- Davis TL, November 20, 2009, <u>invited talk</u>, University of Pennsylvania Genetics Training Grant Graduate Student Career Forum, Balancing teaching and research in the sciences.
- Davis TL, Harview C\*, Khaselev N\*, Marlow S\*, Horton R\* and Rahn-Lee C\*, July 18-22, 2009, abstract and <u>poster</u>, 42<sup>nd</sup> Annual Meeting of the Society for the Study of Reproduction, Epigenetic analysis of tissue-specific imprinting of mouse *Rasgrf1* in brain and placenta.
- Davis TL, Dockery L\*, Horton R\*, Harview C\*, Gerfen J\*, Rahn-Lee C\* and Park Y\*, July 26-30, 2008, abstract and <u>poster</u>, 67<sup>th</sup> Annual Meeting of the Society for Developmental Biology, Paternal allele-specific methylation at *Rasgrf1* is present in monoallelic and biallelic tissues.
- Davis TL, September 26, 2007, <u>invited talk</u>, University of Pennsylvania Cell and Molecular Training Grant Alumni Day, Balancing teaching and research at a primarily undergraduate institution.

- Dockery L\*, Horton R\*, Gerfen J\*, Rahn-Lee C\* and Davis TL, July 21-25, 2007, abstract and poster, 40<sup>th</sup> Annual Meeting of the Society for the Study of Reproduction, Differential methylation at mouse *Rasgrf1* is maintained in embryonic, extraembryonic and neonatal tissues, regardless of imprinting status.
- Nowak K\*, Stein G\*, He LM\*, Powell E\* and Davis TL, July 21-25, 2007, abstract and <u>poster</u>, 40<sup>th</sup> Annual Meeting of the Society for the Study of Reproduction, Analysis of paternal allele-specific methylation at mouse *Gtl2* during early embryogenesis.
- Davis TL, June 18-23, 2006, <u>discussion leader</u>, Gordon Research Conference on Mammalian Gametogenesis and Embryogenesis, Epigenetic regulation of the germline and early embryo.
- Gerfen J\*, Rahn-Lee C\* and Davis TL, June 18-23, 2006, abstract and <u>poster</u>, Gordon Research Conference on Mammalian Gametogenesis and Embryogenesis, Differential methylation of the *Rasgrf1* DMR in imprinted, biallelic and non-expressing tissue.
- Stein G\*, He LM\*, Powell E\* and Davis TL, June 18-23, 2006, abstract and <u>poster</u>, Gordon Research Conference on Mammalian Gametogenesis and Embryogenesis, Paternal allele-specific methylation is acquired at the *Gtl2*DMR during early embryonic development.
- Davis TL, October 24, 2005, <u>invited talk</u>, Catholic University of America, Mom's DNA... too much of a good thing?
- He LM\*, Powell E\*, Stein G\* and Davis TL, July 24-27, 2005, abstract and <u>poster</u>, 38<sup>th</sup> Annual Meeting of the Society for the Study of Reproduction, Paternal allele-specific methylation is acquired at the promoter of the imprinted mouse *Gtl2* locus post-fertilization.
- Gerfen J\*, Rahn-Lee C\* and Davis TL, July 24-27, 2005, abstract and <u>poster</u>, 38<sup>th</sup> Annual Meeting of the Society for the Study of Reproduction, Methylation analysis of the imprinted *Rasgrf1* gene in tissues exhibiting monoallelic, biallelic or no expression.
- Bhogal B\*, Arnaudo A\*, Dymkowski A\*, Best A\* and Davis TL, June 6-11, 2004, abstract and <u>poster</u>, Gordon Research Conference on Mammalian Gametogenesis and Embryogenesis, Paternal allele-specific methylation at the mouse *Cdkn1c (p57)* gene is acquired during embryogenesis.
- Davis TL, March 12, 2003, <u>invited talk</u>, Muhlenberg College, Mammals need a mom and a dad: Establishing genomic imprinting marks during development.
- Davis TL, February 19, 2003, <u>invited talk</u>, Dickinson College, Mammals need a mom and a dad: Establishing genomic imprinting marks during development.
- Arnaudo A\*, Naik S\* and Davis TL, July 28-31, 2002, abstract and <u>poster</u>, 35<sup>th</sup> Annual Meeting of the Society for the Study of Reproduction, The acquisition of paternal-specific methylation during gametogenesis.
- Davis TL, Arnaudo A\*.and Naik S\*, June 30-July 5, 2002, abstract and <u>poster</u>, Gordon Research Conference on Mammalian Gametogenesis and Embryogenesis, The acquisition of paternal-specific methylation during gametogenesis.
- Davis TL, April 30,2002, <u>invited participant</u>, National Institute of Child Health and Human Development, NIH, Workshop on Imprinting in Gametogenesis and Development.
- Davis TL, April 3, 2002, <u>invited talk</u>, St. Joseph's University, Why mammals need a mom and a dad: Establishing imprinting marks during development.
- Davis TL, October 19, 2001, <u>invited talk</u>, National Institute of Child Health and Human Development, NIH, Establishment of imprinting marks during gametogenesis.
- Davis TL, July 2001, abstract and <u>invited talk</u>, 34<sup>th</sup> Annual Meeting of the Society for the Study of Reproduction, The establishment of epigenetic imprinting marks during gametogenesis.
- Davis TL, January 2001, <u>invited talk</u>, University of Pennsylvania Scientific Careers Seminar Series, Teaching and conducting research at a liberal arts college.

- Davis TL and Bartolomei MS, October 2000, abstract and <u>poster</u>, Cold Spring Harbor Meeting on Germ Cells, Parental allele-specific acquisition of methylation at the *H19* locus during male gametogenesis.
- Davis TL, Yang GJ\*, McCarrey J and Bartolomei MS, October 1999, abstract and <u>invited talk</u>, 13th International Mouse Genome Conference, Methylation is acquired at different times on the maternal and paternal *H19* alleles during male germ cell development.
- Davis TL and Bartolomei MS, October 1998, abstract and <u>poster</u>, Cold Spring Harbor Meeting on Gametogenesis, Establishment of methylation at the *H19* locus during male germ cell development.
- Davis TL and Bartolomei MS, July 1998, abstract and <u>poster</u>, Gordon Research Conference on Chromatin Structure and Function, Establishment of methylation at the *H19* locus during male germ cell development.
- Davis TL, Tremblay KD and Bartolomei MS, October 1997, abstract and <u>poster</u>, 11<sup>th</sup> International Mouse Genome Conference, Analysis of *H19* expression and methylation in murine extraembryonic tissues.
- Davis TL and Meyer BJ, July 1996, abstract and <u>poster</u>, 1996 West Coast *C. elegans* Meeting, SDC-3 and the assembly of an X chromosome dosage compensation complex.
- Davis T, Chuang PT and Meyer BJ, June 1995, abstract and <u>invited talk</u>, 10th International *C. elegans* Meeting, A molecular mechanism for X chromosome dosage compensation in *C. elegans*.
- Davis T and Meyer BJ, July 1994, abstract and <u>poster</u>, 1994 West Coast *C. elegans* Meeting, Analysis of *sdc-3* and its role in hermaphrodite development.

### COURSES TAUGHT AT BRYN MAWR COLLEGE

regular offerings:	Biology 110: Biological Exploration I
	Biology 201: Genetics
	Biology 376: Molecular Biology (with lab)
	Biology 393: Senior Seminar in Molecular Genetics
	Biology 399: Senior Seminar in Laboratory Investigations
	Biology 400/403: Supervised Research

#### **RESEARCH STUDENTS SUPERVISED**

#### **Undergraduate Student Research Assistants (72):**

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Ahado Ali, '25	Jessica Arbon, '14	Anna Arnaudo, '02
Jeanette Bates, '12	Emily Bergbower, '11	Alison Best, '03
Balpreet Bhogal, '04	Meredith Calandra, '04	Amber Carmo, '01
Nathalya Castillo Salmeron, '26	Paige DeRosa, '14	Lauren Dockery, '08
Alyson Dymkowski, '04	Jordan Ellis-Pugh, '21	Carolyne Face, '15
Sara Fielder, '13	Samantha Forestier, '20	Alyssa Gagne, '11
Jennifer Gerfen, '06	Sophie Gibson, '20	Lana Giha, '24
Megan Guntrum, '16	Nicole Hamagami '16	Christina Harview, '09
Lu Mei He, '06	Aimee Heerd, '14	Myles (Abby) Hochman, '13
Rachel Horton, '07	Rebecca Joseph, '13	Kirsten Jusewicz-Haidle, '09
Elisa Kardhashi, '22	Julia Kesack, '23	Nelly Khaselev, '11
Milena Lewis, '25	Courtney Link, '20	Jaclyn Lo, '22
Francesca Marangell, '09	Sara Marlow, '11	Sarah McCawley, '02
Kayla McDaniel, '11	Lauren McNelly, '11	Avery Miller, '05
Jane Morris, '10	Snehal Naik, '03	Julianna Nechin, '18
Kamila Nowak, '08	Isabel Oalican, '23	Anuja Ogirala, '01
Tammy Owens, '02	Yaena Park, '08	Chris Pathmanabhan, '20

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Clementine Payne, '22	Stephanie Pollack, '08	Elizabeth Powell, '05
Mahvish Qureshi, '10	Charlotte Rahn-Lee, '05	Lilah Rahn-Lee, '05
Naideline Raymond, '19	Amelie Raz, '11	Shaili Regmi, '21
Jacqueline Saulnier, '24	Sarah Schnellbacher, '13	Meghan Shayhorn, '01
Rachel Shields, '15	Christine Siebels-Lindquist, '21	Geneva Stein, '06
Kristian Sumner, '17	Chloe Tang, '24	Celia Tong, HC '13
Emma Tunstall, '17	Ekaterina Vlasova, '15	Ruth Worrell, '01

#### A.B./M.A. Student Research Assistant:

Snehal Naik, '03: thesis, Searching for Global Mechanisms of Imprinting Regulation: Comparison of Paternal Allele-Specific Methylation at Imprinted Mouse *H19* and *Gtl2*.

### **Dorothy Nepper Marshall Fellows Supervised:**

- Snehal Naik, '03; research component: Summer 2002-Spring 2003.
- Anna Arnaudo, '02; teaching component: Bio201, Genetics, Fall 2001; research component: Summer 2001-Spring 2002.

#### **Independent Major Supervised:**

Helena VanOudenallen, '16: thesis, Historical Contributions to the Medical Model of Childbirth and the Biological Consequences of Medicalization: An Exploration of the American Maternity Care System.

#### **On-campus mentor for off-campus independent research:**

- Hemma Murali, '19: thesis, Tumor suppressor Fbxw7 regulates IFNGR1 via ubiquitin-dependent proteosomal degradation in triple negative breast cancer. (Dr. Rumlea Chakrabarti, University of Pennsylvania School of Veterinary Medicine)
- Haidyn Weight, '19: thesis, Generation of lineage-related, replication competent, infectious simian human immunodeficiency virus (SHIV) derived from subtype C, transmitted HIV-1 envelope. (Drs. Amit Sharma and Julie Overbaugh, Fred Hutchinson Cancer Research Center)
- Bo Bitange, '19: research at the University of Pennsylvania
- Sasha Bauer, '19: Praxis III, genetic counseling
- Hamna Shahwanaz, '18: thesis, mRNA vaccines for use in combating Zika virus. (Dr. Drew Weissman, University of Pennsylvania)
- Kyra Sagal, '17: thesis, Sensitizing Kras Mutant Lung Cancers to Mdm2 Inhibition Through Pharmacological Amplification of MAPK Signaling. (Dr. David Feldser, University of Pennsylvania)
- Kristina Kronauer, '13: Praxis III, Large Dairy Herd Management at Marshak Farm. (Dr. James Ferguson, University of Pennsylvania School of Veterinary Medicine)
- Laudita Kuswanto, '13: Praxis III thesis, Identification of Distinct Genetic Programs that Mediate Cell Cycle Arrest or Apoptosis by the Tumor Suppressor Protein p53. (Dr. Steven McMahon, Thomas Jefferson University)

### EXTRAMURAL POSTER PRESENTATIONS AND TALKS BY UNDERGRADUATE RESEARCH STUDENTS

\*denotes award received by undergraduate research student

- Ahado Ali, The maintenance of DNA methylation at primary and secondary DMRs, 22<sup>nd</sup> New England Science Symposium, Harvard Medical School, April 2, 2023.
- Lana Giha, Exploration of methylation maintenance at imprinted genes in methyltransferase mutant mice, 21<sup>st</sup> New England Science Symposium, Harvard Medical School, April 29-30, 2022.
- Courtney Link\*, Analysis of 3D chromatin conformation at *Rasgrf1* relating to its expression in mouse liver, 21<sup>st</sup> Annual Undergraduate Research Symposium in the Chemical and Biological

Sciences, University of Maryland, Baltimore County, October 20, 2018. First place prize in the Biological Sciences category.

- Julianna Nechin, Methylation analysis at *Snrpn* and *Ndn*, Sigma Xi Student Research Day, Thomas Jefferson University, April 10, 2018.
- Emma Tunstall, Analysis of methylation patterns on complementary strands of the imprinted *H19* gene, New England Science Symposium, Harvard Medical School, March 25, 2017.
- Julianna Nechin\*, DNA methylation patterns at *Snrpn*, 19<sup>th</sup> Annual Undergraduate Research Symposium in the Chemical and Biological Sciences, University of Maryland, Baltimore County, October 22, 2016. Second place prize in the Biological Sciences category.
- Nicole Hamagami\*, Analysis of DNA methylation on the complementary strands of the imprinted *p57* gene, Sigma Xi Student Research Day, Thomas Jefferson University, April 13, 2016. Winner of undergraduate poster competition.
- Kristian Sumner\*, Analysis of DNA methylation acquisition and maintenance at the C-region of imprinted *Rasgrf1* across mouse development, New England Science Symposium, Harvard Medical School, April 3, 2016. Ruth and William Silen, M.D. Award, first place prize in the Microbiology, Immunology, Genetics or Molecular Biology category.
- Megan Guntrum, DNA methylation patterns in the IG-DMR, 18<sup>th</sup> Annual Undergraduate Research Symposium in the Chemical and Biological Sciences, University of Maryland, Baltimore County, October 3, 2015.
- Nicole Hamagami, Analysis of modified histone distribution at the tissue-specific imprinted *Rasgrf1* locus using allele-specific qPCR following ChIP, 18<sup>th</sup> Annual Undergraduate Research Symposium in the Chemical and Biological Sciences, University of Maryland, Baltimore County, October 3, 2015.
- Kristian Sumner\*, Analysis of DNA methylation at the C region of imprinted *Rasgrf1* across mouse development, 18<sup>th</sup> Annual Undergraduate Research Symposium in the Chemical and Biological Sciences, University of Maryland, Baltimore County, October 3, 2015. Second place prize in the Biological Sciences category.
- Megan Guntrum, DNA methylation patterns in the IG-DMR, 11<sup>th</sup> Annual Undergraduate Science Research Symposium, Haverford College, September 19, 2015.
- Kristian Sumner, Analysis of DNA methylation at the C region of imprinted *Rasgrf1* across mouse development, 11<sup>th</sup> Annual Undergraduate Science Research Symposium, Haverford College, September 19, 2015.
- Ekaterina Vlasova\*, Analysis of hemimethylation in imprinted genes: DNA methylation patterns at *Gtl2*, Sigma Xi Student Research Day, Thomas Jefferson University, April 9, 2015. Winner of poster competition in undergraduate division.
- Carolyne Face\*, Histone modification as a potential regulator of the tissue-specific imprinting of *Rasgrf1*, 17<sup>th</sup> Annual Undergraduate Research Symposium in the Chemical and Biological Sciences, University of Maryland, Baltimore County, October 25, 2014. First place prize in the Biological Sciences category.
- Nicole Hamagami<sup>\*</sup>, Analysis of modified histone distribution at the tissue-specific imprinted *Rasgrf1* locus using allele-specific qPCR following ChIP, 17<sup>th</sup> Annual Undergraduate Research Symposium in the Chemical and Biological Sciences, University of Maryland, Baltimore County, October 25, 2014. First place prize in the Biological Sciences category.
- Rachel Shields\*, Analysis of DNA methylation at the uDMR locus of the imprinted *Rasgrf1* in mouse embryonic development, 17<sup>th</sup> Annual Undergraduate Research Symposium in the Chemical

and Biological Sciences, University of Maryland, Baltimore County, October 25, 2014. First place prize in the Biological Sciences category.

- Ekaterina Vlasova, Searching for hemimethylation in imprinted genes: DNA methylation patterns at *Gtl2*, 17<sup>th</sup> Annual Undergraduate Research Symposium in the Chemical and Biological Sciences, University of Maryland, Baltimore County, October 25, 2014.
- Jessica Arbon\*, Understanding methylation acquisition in 6.5 day old mouse embryos in comparison to nearby developmental stages, 16<sup>th</sup> Annual Undergraduate Research Symposium in the Chemical and Biological Sciences, University of Maryland, Baltimore County, October 26, 2013. First place prize in the Biological Sciences category.
- Paige De Rosa\*, Developing a nChIP-qPCR assay for the study of histone modifications in mouse, 16<sup>th</sup> Annual Undergraduate Research Symposium in the Chemical and Biological Sciences, University of Maryland, Baltimore County, October 26, 2013. Second place prize in the Biological Sciences category.
- Aimee Heerd, Developing an assay for the analysis of histone modifications at imprinted genes, 16<sup>th</sup> Annual Undergraduate Research Symposium in the Chemical and Biological Sciences, University of Maryland, Baltimore County, October 26, 2013.
- Rachel Shields, Analysis of DNA methylation at the uDMR locus of the imprinted *Rasgrf1* in mouse sperm, 16<sup>th</sup> Annual Undergraduate Research Symposium in the Chemical and Biological Sciences, University of Maryland, Baltimore County, October 26, 2013.
- Ekaterina Vlasova\*, DNA methylation at the *Rasgrf1* DMR extends beyond previously defined boundaries, 16<sup>th</sup> Annual Undergraduate Research Symposium in the Chemical and Biological Sciences, University of Maryland, Baltimore County, October 26, 2013. Second place prize in the Biochemistry and Molecular Biology category.
- Paige De Rosa, Developing a nChIP-qPCR assay for the study of histone modifications in mouse, 9<sup>th</sup> Annual Undergraduate Science Research Symposium, Haverford College, September 21, 2013.
- Rachel Shields, Analysis of DNA methylation at the uDMR locus of the imprinted *Rasgrf1* in mouse sperm, 9<sup>th</sup> Annual Undergraduate Science Research Symposium, Haverford College, September 21, 2013.
- Ekaterina Vlasova, DNA methylation at the *Rasgrf1* DMR extends beyond previously defined boundaries, 9<sup>th</sup> Annual Undergraduate Science Research Symposium, Haverford College, September 21, 2013.
- Sarah Schnellbacher, Allelic distribution of histones in brain and liver neonatal tissue at the promoter, DMR and upstream of DMR in mouse *Rasgrf1*, 2013 Sigma Xi Student Research Day, Thomas Jefferson University, April 17, 2013.
- Sarah Schnellbacher, Allelic distribution of histones at the imprinted *Rasgrf1* gene, 2012 Mid-Atlantic Pharmacology Society Annual Meeting, GlaxoSmithKline, Collegeville, PA, October 25, 2012.
- Abby Hochman, The acquisition of methylation at *Dlk1*-DMR, 2012 Mid-Atlantic Pharmacology Society Annual Meeting, GlaxoSmithKline, Collegeville, PA, October 25, 2012.
- Abby Hochman, The acquisition of methylation at *Dlk1*-DMR, 15<sup>th</sup> Annual Undergraduate Research Symposium in the Chemical and Biological Sciences, University of Maryland, Baltimore County, October 20, 2012.
- Sarah Schnellbacher, <u>invited talk</u>, Allelic distribution of histones at the imprinted *Rasgrf1* gene, 8<sup>th</sup> Annual Undergraduate Science Research Symposium, Haverford College, September 22, 2012.

- Sara Fielder\*, <u>invited finalist</u>, 2012 McKnight Prize in Undergraduate Biochemistry, Histone modifications at *Rasgrf1* in mouse kidney, University of Texas Southwestern Medical Center at Dallas, UT Southwestern Biochemistry Research Retreat, November 2012.
- Sara Fielder, Histone modifications at *Rasgrf1* in mouse kidney, 8<sup>th</sup> Annual Undergraduate Science Research Symposium, Haverford College, September 22, 2012.
- Abby Hochman, The acquisition of methylation at *Dlk1*-DMR, 8<sup>th</sup> Annual Undergraduate Science Research Symposium, Haverford College, September 22, 2012.
- Sara Marlow, An investigation of histone modification in *Rasgrf1* in mouse, 2011 Sigma Xi Student Research Day, Thomas Jefferson University, April 27, 2011.
- Alyssa Gagne, Analysis of differential DNA methylation acquisition at the *Dlk1*-DMR in mouse, 2011 Sigma Xi Student Research Day, Thomas Jefferson University, April 27, 2011.
- Bailey Baumann\*, The identification of AMPA receptor in *Hirudo medicinalis*, 2<sup>nd</sup> Annual Lehigh Valley Society for Neuroscience Undergraduate Conference, April 16, 2011.
- Amelie Raz\*, Epigenetic consequences of sexual vs. asexual development in the pea aphid, 13<sup>th</sup> Annual Undergraduate Research Symposium in the Chemical and Biological Sciences at the University of Maryland, Baltimore County, October 30, 2010. First place prize in the Biological Sciences 3 category: \$50 gift certificate to Barnes & Noble.
- Alyssa Gagne\*, Analysis of differential DNA methylation acquisition at the *DLK1*-DMR in mouse, 13<sup>th</sup> Annual Undergraduate Research Symposium in the Chemical and Biological Sciences at the University of Maryland, Baltimore County, October 30, 2010. Second place prize in the Biological Sciences 4 category: \$50 gift certificate to Barnes & Noble.
- Sara Marlow\*, An investigation of histone modification in *Rasgrf1* in mouse, 13<sup>th</sup> Annual Undergraduate Research Symposium in the Chemical and Biological Sciences at the University of Maryland, Baltimore County, October 30, 2010. Second place prize in the Biochemistry and Molecular Biology 3 category: \$50 gift certificate to Barnes & Noble.
- Alyssa Gagne, Analysis of differential DNA methylation acquisition at the *DLK1*-DMR in mouse, 7<sup>th</sup> Annual Undergraduate Science Research Symposium, Haverford College, September 25, 2010.
- Jennifer Gerfen, Methylation analysis of the imprinted *Rasgrf1* gene in tissues exhibiting monoallelic, biallelic or no expression, 2<sup>nd</sup> Annual Undergraduate Science Research Symposium, Haverford College, October 29, 2005.
- Lu Mei He, Parental allele-specific methylation is acquired at the promoter of the imprinted mouse *Gtl2* locus post-fertilization, 2<sup>nd</sup> Annual Undergraduate Science Research Symposium, Haverford College, October 29, 2005.
- Jennifer Gerfen, Methylation analysis of the imprinted *Rasgrf1* gene in tissues exhibiting monoallelic, biallelic or no expression, 8<sup>th</sup> Annual Undergraduate Research Symposium in the Chemical and Biological Sciences, University of Maryland, Baltimore County, October 15, 2005.
- Geneva Stein\*, Methylation acquisition on the paternal allele of mouse gene *Gtl2*, 8<sup>th</sup> Annual Undergraduate Research Symposium in the Chemical and Biological Sciences, University of Maryland, Baltimore County, October 15, 2005. Second place prize in the Biochemistry and Molecular Biology Poster Session: \$50 gift certificate to Barnes & Noble.
- Avery Miller, Determining the 3' boundary of differential methylation in the mouse *p57* (*Cdkn1c*) gene, 16<sup>th</sup> Annual Saint Joseph's University Sigma Xi Student Research Symposium, April 8, 2005.
- Elizabeth Powell, Examination of differential methylation on mouse gene *Gtl2* island 4, 16<sup>th</sup> Annual Saint Joseph's University Sigma Xi Student Research Symposium, April 8, 2005.
- Charlotte Rahn-Lee, Methylation and expression of imprinted mouse gene *Rasgrf1*, 16<sup>th</sup> Annual Saint Joseph's University Sigma Xi Student Research Symposium, April 8, 2005.

- Balpreet Bhogal and Alyson Dymkowski, Establishment of paternal-specific methylation at p57 in • mouse, 15th Annual Saint Joseph's University Sigma Xi Student Research Symposium, April 23, 2004.
- Alyson Dymkowski\* and Balpreet Bhogal\*, Investigation of Differential Methylation at p57 in • Mouse, 6th Annual Undergraduate Research Symposium in the Chemical and Biological Sciences, University of Maryland, Baltimore County, November 1, 2003. First place prize in Biological Sciences Poster Session.
- Alison Best, Alyson Dymkowski, and Balpreet Bhogal, Investigation of differential methylation at • *p57* in mouse, 14<sup>th</sup> Annual Saint Joseph's University Sigma Xi Student Research Symposium, April 11, 2003.
- Snehal Naik, Investigation of differential methylation of the mouse *Dlk1-gtl2* locus, 14<sup>th</sup> Annual ٠ Saint Joseph's University Sigma Xi Student Research Symposium, April 11, 2003.
- Tammy Owens and Anuja Ogirala, Paternal-specific acquisition of differential methylation patterns • at the H19 locus in the developing female germ line, 4<sup>th</sup> Annual Undergraduate Research Symposium in the Chemical & Biological Sciences, University of Maryland, Baltimore County, October 6, 2001.
- Anna Arnaudo\*, Determining an area of differential methylation in the imprinted mouse p57 gene, 4<sup>th</sup> Annual Undergraduate Research Symposium in the Chemical and Biological Sciences, University of Maryland, Baltimore County, October 6, 2001. First place prize in Biological Sciences Poster Session: plaque and subscription to Science magazine.
- Anna Arnaudo\*, Determining an area of differential methylation in the imprinted mouse p57 gene, Kimmel Cancer Center undergraduate research symposium, Thomas Jefferson University, September 24, 2001. Third place prize in poster competition: \$250.
- Anuja Ogirala\*. Methylation patterns within the H19 locus in developing stages of mouse prooogonia, 3rd Annual Undergraduate Research Symposium in the Chemical and Biological Sciences, University of Maryland, Baltimore County, October 20, 2000. First place prize in Biological Sciences Poster Session: plaque and subscription to Science magazine.

# **GRADUATE STUDENT SUPERVISORY ROLES**

- Ph.D. Supervising committee member, Shannon Dalton (Chemistry/Sharon Burgmeyer)
- Master's exam committee member, James Schweppe (Chemistry/Susan White), Spring 2001 •
- Master's exam committee member, Shannon Dalton (Chemistry/Sharon Burgmeyer), Fall 2004 •
- Chair of Ph.D. Supervising Committee for Cheryl Selah (Chemistry/Susan White) •
- Chair of Ph.D. Dissertation Committee for Tina Ross (Chemistry/Bill Malachowski)

## FACULTY MENTOR FOR JUNIOR FACULTY COLLEAGUES OUTSIDE DEPARTMENT

- Michael Schulz, Physics (2007-2013) •
- Laurel Peterson, Psychology (2014-2019) •
- Laura Grafe, Psychology (2018-present) •

## SELECTED EXTRAMURAL PROFESSIONAL ACTIVITIES

- ad-hoc scientific reviewer:
  - o *Biology of Reproduction*, February 2010, November 2010, August 2011, November 2012
  - *BioMed Research International*, August 2013
  - o Epigenetics, February 2012, June 2019
  - o Epigenetics & Chromatin, January 2015, March 2019
  - o *Epigenomics*, January 2018

Curriculum vitae, Tamara Davis, August 2023

- o FEBS Letters, October 2014
- o G3, August 2016
- o Genome, October 2011, July 2012
- o Human Molecular Genetics, November 2007, January 2008, January 2009
- o Journal of Assisted Reproduction and Genetics, July 2017
- o Molecular Reproduction & Development, July 2011, January 2012, June 2013, July 2013 (2)
- o Nucleic Acids Research, October 2015
- o *OBM Genetics*, June 2018
- o PLOS Genetics, February 2017, May 2020
- o Scientific Reviews, January 2016
- ad-hoc scientific reviewer for the Medical Research Council, UK
  - o December 2011, July 2012, February 2013, December 2022
- January 2021: ad-hoc scientific reviewer for the National Science Foundation Molecular & Cell Biology Division, Genetic Mechanisms.
- April 14-17, 2020: Bioinformatics training course: Analysis of Next Generation Sequencing Data at the Foundation for Advanced Education in the Sciences, National Institutes of Health, 2.8 CEUs.
- January 2020: ad-hoc scientific reviewer for the National Science Foundation Molecular & Cell Biology Division, Genetic Mechanisms Excellence in Research, HBCU.
- October 21-23, 2018: chair of external review committee for Biology Department at Colby College.
- January 2017: educational material reviewer for Visionlearning (www.visionlearning.com); "Y-chromosome and Mitochondrial DNA Haplotypes: Tales of Human Ancestry".
- September 2016: ad-hoc scientific reviewer for the National Science Foundation Genetic Mechanisms Panel.
- January 13, 2016: attendee at Epigenetics of Cell Fate Symposium, University of Pennsylvania.
- March 2014: scientific reviewer, Epigenetics and Regulation of Transcription panel, Division of Molecular and Cellular Biosciences, National Science Foundation.
- January 2014: reviewer, two chapters for Latchman, *Gene Control*, 2<sup>nd</sup> edition, Garland Science.
- July 2012: reviewer, proposal for 2<sup>nd</sup> edition, *Gene Control*, Garland Science.
- May 2012: session chair at 2012 Mid-Atlantic Society for Developmental Biology meeting.
- March 2012: review abstracts for Epigenetics session at 45<sup>th</sup> Annual Meeting of the Society for the Study of Reproduction.
- February 2012-present: HHMI CourseSource Genetics Committee.
- March 2011: panelist for University of Pennsylvania graduate student workshop, Teaching at a Liberal Arts College.
- March 2010: ad-hoc scientific reviewer for National Institutes of Health Special Emphasis Panel.
- February 2008: reviewer, proposed Integrated Genetics textbook, John Wiley and Sons.
- October 2007: ad-hoc scientific reviewer for the Cellular, Molecular and Integrative Reproduction Study Section, National Institutes of Health Center for Scientific Review.
- Programming Committee & Session Organizer for the 41<sup>st</sup> Annual Meeting of the Society for the Study of Reproduction, May 26-29, 2008, Hawaii.
- June 21, 2006: Panelist in Career Development Workshop at the Gordon Research Conference on Mammalian Gametogenesis and Embryogenesis, June 18-23, 2006.
- November 2003: Review two chapters for Griffiths *et* al., *An Introduction to Genetic Analysis*, 8<sup>th</sup> edition, W.H. Freeman and Company.
- September 2002: reviewer, molecular biology textbook proposal, Blackwell Publishing.

- June 2002: provider of questions for the GRE test in Biochemistry, Cell and Molecular Biology, Educational Testing Service.
- July 2001: Evaluation of four chapters in *Principles of Molecular Biology*, W.W. Norton & Company.

## PROFESSIONAL MEMBERSHIPS

- 2002-present, Council on Undergraduate Research
- 2001-2022, Society for the Study of Reproduction
- 1999-present, AAAS
- 1998-present, DNA Methylation Society

#### **SELECTED COMMITTEE WORK, SERVICE TO THE COLLEGE AND OUTREACH** on-going work and service commitments

- September 2023-present: interim Biochemistry & Molecular Biology major advisor.
- September 2022-present: member of Curriculum Committee.
- September 2022-present: member of 360 Steering Committee.
- September 2022-present: STEMLA mentor.
- Fall 2018-present: director, Biochemistry & Molecular Biology program.
- June 2007-present: Undergraduate Premedical Advisory Committee.
- Fall 2000-present: Bryn Mawr College Institutional Animal Care & Use Committee-IACUC; Chair, Fall 2020-present.

## previous work and service at Bryn Mawr College

- Fall 2023: member of Bryn Mawr College Biology search committee, Neuroscientist search.
- October 2022: speaker at faculty research session, Family & Friends weekend.
- Fall 2022, member of Bryn Mawr College Biology search committee, Neuroscientist search.
- Fall 2022, member of Bryn Mawr College Biology search committee, Physiologist search.
- July 2022–July 2023, Chair of the Science Chairs.
- June 2022: panelist, Amplifying our Excellence, Bryn Mawr Board of Trustees retreat.
- April 2021: teach-in co-organizer, "Oh, No! Say it Isn't So! Eugenic Skeletons in Unsuspected Closets".
- Spring 2021: participant, Pedagogy Circles for Diversity, Equity and Inclusion.
- January 2021-May 2023: member of Posse Advisory Council.
- Fall 2020: member of Bryn Mawr College Biology search committee, Genomicist search.
- August 2020: participant, community forums on anti-racism.
- August 2020: participant, Inclusive Classrooms in STEM seminar.
- Summer 2020-May 2022: STEM Posse mentor, class of 2024.
- Fall 2019: member of Bryn Mawr College Biology search committee, Physiologist search.
- Fall 2019: member of Haverford College Biology Department search committee, Geneticist search.
- Spring 2019-Spring 2022: Praxis Faculty Advisory Committee.
- February 2019: participant at Posse Plus Retreat.
- Fall 2018: member of Bryn Mawr College Biology search committee, Immunologist search.
- October 2018: faculty panelist, STEM Academic Panel, Fall Open House.
- April-May 2018: panelist at Creating Inclusive Classroom Communities.
- April 2018: Department Office Hours, Bryn Mawr in Focus events.
- April 2018: participant in student-led workshop on Inclusive Classrooms and Campuses.

*Curriculum vitae*, Tamara Davis, August 2023

- November 2017: faculty reviewer of Goldwater Fellowship applications.
- November 2017: speaker at breakfast for Athenaeum event.
- Fall 2017-Spring 2019: member of Committee on Academic Priorities.
- Fall 2017-Spring 2019: coordinator of student-invited spring seminar series in Biology.
- February 2017: faculty panelist at Major Exploration Workshop for First-Year Students.
- September 2016: faculty panelist at Faculty Research Session, Senior Stay for Scholar Athletes.
- Fall 2016-Spring 2019: Biochemistry Major Advisor.
- Fall 2016-Spring 2019: member of Committee on Faculty Awards and Grants.
- August 2016: faculty panelist, Faculty Scholarship and Support: Fitting it All In session, New Faculty Orientation.
- April 2016: Biology Department representative for Post-Baccalaureate and Pre-Health Program External Review.
- Spring 2015: Chair of Bryn Mawr College Biology Search Committee, Interim Physiologist search.
- Spring 2015: Chair of Bryn Mawr College Biology Search Committee, Interim Geneticist search.
- April 2015: faculty panelist at STEM sessions, admitted student days.
- March 2015: session facilitator, Community Day of Learning.
- October 2014: KIM talk at Bryn Mawr College Family Weekend.
- Fall 2014-Spring 2015: Chair, Committee on Academic Priorities.
- Fall 2014-Spring 2015: member of Advisory Council of the Faculty.
- August 2014: faculty panelist at the Faculty Life Experience session, New Faculty Orientation.
- Spring 2014: Chair of Bryn Mawr College Biology Search Committee, Interim Neurobiologist search.
- Spring 2014: faculty panelist at Bryn Mawr College admitted student events.
- Fall 2013-Spring 2015: member of President's Strategic Advisory Group.
- Fall 2013: Chair, Bryn Mawr College Biology Search Committee, Computational Ecologist search.
- Spring 2013: Chair, Bryn Mawr College Biology Search Committee, Laboratory Lecturer search.
- Fall 2012: Chair, Bryn Mawr College Biology Search Committee, Genomics search.
- Spring 2012: Biology Department liaison for community college course review.
- Fall 2011-Fall 2018: customs week advisor.
- Fall 2011-Spring 2015: member of Committee on Academic Priorities.
- Fall 2011-Spring 2013: supervisor of administrative assistants for Biology, Chemistry & Geology.
- Fall 2011: member of Bryn Mawr College Biology Search Committee, Ecologist Search.
- Summer 2011: Chair of Bryn Mawr College Biology Search Committee, Visiting Assistant Professor in Genomics.
- Fall 2010: Co-Chair, Bryn Mawr College Biology Search Committee, CNTT for Post-baccalaureate Introductory Biology instruction.
- Fall 2009-Spring 2011: Board of Trustees Task Force on the Competitive Position of the College.
- September 2009: presentation to high school guidance counselors, science education & research at BMC.
- July 2009: provide research lab tour for groups of perspective students at Open Campus Day.
- June 2009-June 2015: Chair of Biology Department.
- June 2009-June 2015: Biology Department representative to Science Chairs.
- Spring 2009: member of Bryn Mawr College Biology Search Committee, CNTT for Introductory Biology instruction.

- Fall 2008: member of Bryn Mawr College Biology Search Committee, Computational Ecologist Search.
- July 2008: guest lecturer, Science for College.
- May 2008-September 2011: Associate Grand Marshal, Grand Marshal.
- May 2008-May 2010: Joint Curriculum Renewal Group.
- April 2008: faculty speaker for Open Campus Days Master Classes.
- Fall 2007-Spring 2009: member of Facilities Planning Committee.
- Fall 2007: member of Bryn Mawr College Biology Search Committee, Evo-Devo Search.
- October 2007: speaker at First Friday Faculty Club Lunch series, Why a mammal needs a biological mom and dad: Mom's DNA... too much of a good thing?
- July 2007: guest lecturer, Science for College.
- Spring 2007-Fall 2008: coordinator of Bryn Mawr Summer Science Research Program.
- Fall 2006-Spring 2007, Spring 2001-Spring 2002: Bryn Mawr Curriculum Committee.
- Fall 2006: member of Bryn Mawr College Biology Search Committee, Biochemistry Search.
- October 2006: panelist for "Professors as Colleagues" at Open Campus Day.
- September 2006-present: first year student advising.
- September 2006: panelist at New Faculty Orientation, Pedagogy Outside the Classroom.
- August 2006: workshop leader for K-12 teachers at Summer Science Institute.
- April 2006: presentation to alumnae at Challenging Women campaign event.
- Fall 2005: member of Bryn Mawr College Biology Search Committee, Biochemistry Search.
- Spring 2005-Fall 2006: Board of Trustees Task Force on Optimal Undergraduate Enrollment.
- Spring 2005-Spring 2007: President's Advisory Group on Work/Family Issues.
- Spring 2005: member of the Mellon Mays Undergraduate Fellowship Program selection committee.
- February 2005; November 4, 2005, February 23, 2007: guest lecturer, Fridays in the Lab for high school students.
- Fall 2004-Spring 2005: member of the Committee on Libraries, Information Services and Computing.
- November 2004: research talk presented at Parent's Weekend.
- Fall 2003-Spring 2009: Biology Department major advisor.
- Fall 2002: member of Bryn Mawr College Biology Search Committee, Ecology Search.
- summer 2002, 2004, 2005, 2006, 2008, 2010: faculty representative welcoming prospective students at summer Open Campus Day.
- April 2002: moderator at Student Research Panel during Open Campus Days.
- Fall 2001-Spring 2004: member of the Keck Postdoctoral Search Committee.
- Fall 2000: faculty representative to the Haverford College Biology Search Committee.