

Amy Thompson Hark

Muhlenberg College
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Allentown, PA 18014
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EDUCATION

Postdoctoral Research, Biochemistry and Molecular Biology, Michigan State University, East Lansing, MI 2001-2004

Ph.D., Molecular Biology, Princeton University 2000

M.A., Molecular Biology, Princeton University, Princeton, NJ 1997

B.S., Biology, College of William and Mary, Williamsburg, VA 1994

PROFESSIONAL EXPERIENCE

Assistant Professor of Biology and Co-director of Biochemistry Program, Muhlenberg College
August 2004-present

Postdoctoral Research Associate in the laboratory of Dr. Steven Triezenberg, Department of Biochemistry and Molecular Biology, Michigan State University
August 2001-June 2004

Visiting Assistant Professor of Biology, Kalamazoo College, Kalamazoo, MI
Academic Year 2000-2001

Graduate Student in the laboratory of Dr. Shirley Tilghman, Howard Hughes Medical Institute and Department of Molecular Biology, Princeton University 1995-2000
Thesis title: "Regulation of the imprinted *H19/Igf2* locus by a chromatin boundary element"

Teaching Assistant and Guest Lecturer for courses in cell, molecular, and developmental biology, Princeton University 1995-1998

SELECTED PUBLICATIONS

* denotes undergraduate co-author; ¶ Denotes equal contribution by these authors to the work

Cohen, R.*, J. Schocken*, A. Kaldis, K.E. Vlachonasios, **A.T. Hark**, and E.R. McCain. The histone acetyltransferase GCN5 affects the inflorescence meristem and stamen development in *Arabidopsis*. *Manuscript submitted*.

Hark, A.T., K.E. Vlachonasios, K.A. Pavangadkar, S. Rao, H. Gordon*, I.-D. Adamakis, A. Kaldis, M.F. Thomashow, and S.J. Triezenberg. 2009. Two *Arabidopsis* orthologs of the transcriptional coactivator *ADA2* have distinct biological functions. *Biochimica et Biophysica Acta* 1789: 117-124.

SELECTED PUBLICATIONS *Continued*

Hark, A.T. 2008. Crossing over: An undergraduate service learning project that connects to biotechnology education in secondary schools. *Biochemistry and Molecular Biology Education* 36: 159-165.

Hark, A.T. and S.J. Triezenberg. 2001. Chromatin and transcription: merging package and process. *Cell* 105: 321-323 (book review).

Hark, A.T.[¶], C.S. Schoenherr[¶], D.J. Katz, R.S. Ingram, J.M. Levorse, and S.M. Tilghman. 2000. CTCF mediates methylation-sensitive enhancer blocking activity at the *H19/Igf2* locus. *Nature* 405: 486-489.

Hark, A.T. and S.M. Tilghman. 1998. Chromatin conformation of the *H19* epigenetic mark. *Human Molecular Genetics* 7: 1979-1985.

List of published educational reviews and research abstracts available by request.

SELECTED TALKS AND PRESENTATIONS

* denotes undergraduate co-author

Hark, A.T., R. Cohen*, J. Schocken*, and E.R. McCain. "The histone acetyltransferase GCN5 affects floral bud initiation and stamen development in *Arabidopsis*," poster presented at the Society for Developmental Biology Annual Meeting, Philadelphia, PA. *July 2008*

Hark, A.T. "Crossing over: An undergraduate service learning project aimed at creating instructional materials for genetics education in high school classrooms," contributed talk given at the American Society for Biochemistry and Molecular Biology Annual Meeting, Washington, D.C. *April 2007*

Gordon, H.* and **A.T. Hark**. "Investigation of the function of transcriptional coactivator ADA2 in the growth, development, and stress response of *Arabidopsis thaliana*," poster presented at the American Society for Biochemistry and Molecular Biology Annual Meeting, Washington, D.C. *April 2007*

Hudis, N.* and **A.T. Hark**. "Domains of *Arabidopsis* ADA2a and ADA2b necessary for proper biological functioning," poster presented at the American Society for Biochemistry and Molecular Biology Annual Meeting, Washington, D.C. *April 2007*

Hark, A.T., K.E. Vlachonasis, K.A. Pavangadkar, S. Rao, M.F. Thomashow, and S.J. Triezenberg. "Two *Arabidopsis* orthologs of the transcriptional coactivator ADA2 have distinct biological functions," poster presented at the American Society for Biochemistry and Molecular Biology Annual Meeting, San Francisco, CA *April 2006*

Hark, A.T. "Genomic imprinting," invited lecture given at Cedar Crest College, Allentown, PA *April 2006*

Hark, A.T. "Taking off your HAT: The effect of disrupting transcriptional coactivators involved in histone acetylation in *Arabidopsis thaliana*," invited talk given at Bryn Mawr College, Bryn Mawr, PA *April 2005*

SELECTED TALKS AND PRESENTATIONS *Continued*

Hark, A.T. "Biological roles of transcriptional coactivator proteins in *Arabidopsis thaliana*," talk given at Muhlenberg College, Biology Department, Allentown, PA. *December 2002*

Hark, A.T. "Biological roles of transcriptional coactivator proteins in *Arabidopsis thaliana*," talk given at Hobart and William Smith Colleges, Department of Biology, Geneva, NY. *November 2002*

Hark, A.T. "Regulation of the imprinted *H19/Igf2* locus," invited talk given at Georgian Court College, Department of Biology, Lakewood, NJ. *February 2000*

Hark, A.T. "Regulation of the imprinted *H19/Igf2* locus," invited talk given at The College of New Jersey, Department of Biology, Ewing, NJ. *February 2000*

Hark, A.T., C.S. Schoenherr, R.S. Ingram, J.M. LeVorse, and S.M. Tilghman. "An enhancer blocking element lies upstream of the mouse *H19* gene," contributed talk given at the Chromatin Structure and DNA Function Symposium at The Pennsylvania State University, State College, PA. *July 1999*

Hark, A.T., C.S. Schoenherr, R.S. Ingram, J.M. LeVorse, P. Schedl, and S.M. Tilghman. "Enhancer competition on mouse chromosome 7: how does *H19* gain its advantage on the maternal chromosome?", poster presented at the Society for Developmental Biology Annual Meeting, Palo Alto, CA. *June 1998*

Hark, A.T. and S.M. Tilghman. "Enhancer competition on mouse chromosome 7: how does *H19* gain its advantage on the maternal chromosome?", poster presented at a Gordon Research Conference-Epigenetic Mechanisms of Gene Regulation, Holderness, NH. *August 1997*

Hark, A.T., R.S. Ingram, and S.M. Tilghman. "Enhancer competition on mouse chromosome 7: how does *H19* gain its advantage on the maternal chromosome?", poster presented at Delaware Valley Mouse Club Symposium at Fox Chase Cancer Center, Philadelphia, PA. *November 1996*

Thompson, A.M., A.L. Webber, and S.M. Tilghman. "Hypersensitivity analysis of the *H19* upstream region," poster presented at a Gordon Research Conference-Nuclear Proteins, Chromatin Structure and Gene Regulation, Tilton, NH. *August 1995*

HONORS and AWARDS

- 2009 Faculty Summer Research Grant, Muhlenberg College
- 2009 Bridgebuilder's Award, Muhlenberg College
- 2008 Co-principal investigator, National Science Foundation-CCLI grant "Integration of Bioinformatics into a Biology Curriculum"
- 2008 Center for Ethics Course Development Grant, Muhlenberg College
- 2008 Faculty Summer Research Grant, Muhlenberg College
- 2008 Bridgebuilder's Award, Muhlenberg College
- 2008 Contributor, Merck-AAAS Undergraduate Science Research Program award
- 2007 Summer First Year Seminar Grant, Muhlenberg College
- 2007 Bridgebuilder's Award, Muhlenberg College

HONORS and AWARDS *Continued*

- 2006 Bridgebuilder's Award, Muhlenberg College
- 2005 Course Development Grant, President's Service Learning Initiative, Muhlenberg College
- 2005 Faculty Summer Research Grant, Muhlenberg College
- 2003 Co-investigator, LI-COR DNA Sequencer Award
- 1994 *summa cum laude* graduate, College of William and Mary
- 1993 Barry M. Goldwater Scholar
- 1993 Elected to Phi Beta Kappa, Omicron Delta Kappa, and Mortar Board honor societies, College of William and Mary
- 1992 National Science Foundation Summer Undergraduate Research Fellowship

PROFESSIONAL AND PEDAGOGICAL DEVELOPMENT

Participant and Workshop Leader in Faculty Center for Teaching and Office of Information Technology teaching-related programs, Muhlenberg College *August 2004-present*

Invited participant in Genomics Education Partnership Workshop, funded by Howard Hughes Medical Institute, St. Louis, MO *June 2009*

Participant in Bioinformatics Workshop, funded by NSF-CCLI grant, Muhlenberg College *May 2009*

Student in Genome Consortium for Active Teaching (GCAT) Microarray Workshop, funded by the National Science Foundation, Atlanta, GA *July 2007*

Participant in Outreach in Action workshop at the American Biochemistry and Molecular Biology national meeting, Washington, D.C. *April 2007*

Participant in campus workshop on academic program assessment *October 2006*

Invited participant in Biochemistry Education Focus Group, American Society for Biochemistry and Molecular Biology Annual Meeting, San Francisco, CA *April 2006*

Participant in Formative Assessment Workshop, sponsored by the National Science Foundation-funded Math Science Partnership of Greater Philadelphia, DaVinci Discovery Center *Spring 2006*

Invited participant in 24th Annual Summer Symposium in Molecular Biology (entitled "Comparative and Functional Genomics"), The Pennsylvania State University, State College, PA *July 2005*

Participant in Central Pennsylvania SENCER (Science Education for New Civic Engagements and Responsibilities) Symposium, Harrisburg University *February 2005*

Participant in Process Oriented Guided Inquiry Learning (POGIL) in the Classroom and Laboratory, a National Science Foundation-sponsored workshop, Moravian College *January 2005*

Student in *Arabidopsis* Molecular Genetics course at Cold Spring Harbor Laboratory *Summer 2002*

PROFESSIONAL AND PEDAGOGICAL DEVELOPMENT *Continued*

Participant in “Conversations about Active Teaching and Learning,” MSU Faculty Development Seminar Series, Michigan State University 2001-2003

Panelist in “Faculty as Mentors: Teaching with Assistants in Instruction,” The Spring Meeting for the Faculty, Princeton University 2000

Participant in Workshop on Effective College Teaching, Princeton University 1999

Student in cross-disciplinary graduate course on classroom teaching, Princeton University 1998

PROFESSIONAL ACTIVITIES

Reviewer for *Science Books and Films*, a journal published by the American Association for the Advancement of Science that provides critical reviews of educational and scientific materials 2000-present

Mentor in the Math Science Partnership of Greater Philadelphia (Lehigh Valley Initiative), a National Science Foundation-sponsored consortium September 2004-June 2006

Reviewer of textbooks, lab manuals, and proposals for majors publishers of scientific educational materials 2005-present

Non-affiliated Member, Institutional Animal Care and Use Committee (IACUC), Moravian College May 2005-present

Instructor of a Biotechnology Laboratory Workshop for secondary school science teachers March 2006

Attendee, Eight Annual Undergraduate Research Symposium, University of Maryland, Baltimore County October 2005

Reviewer of manuscripts for professional journals including *Molecular and Cellular Biology*, *Plant Physiology*, *Human Molecular Genetics*, and *Bioessays* 2000-2003

Member of the American Association for the Advancement of Science (*since 1998*), Society for Developmental Biology (*since 1998*), and American Society for Biochemistry and Molecular Biology (*since 2003*)

SELECTED MUHLENBERG COLLEGE SERVICE

Member of College-wide committees currently including Library Committee, Academic Judicial Board, and Faculty Center for Teaching advisory board. Previous service includes Nominating Committee (Chair AY 2007-2008), Institutional Review Board (Chair AY 2008-2009), Woodrow Wilson Visiting Fellow Committee (Chair AY 2007-2008 and Fall 2008), Center for Ethics advisory board (AY 06-07), and inaugural chair of Institutional Animal Care and Use Committee (Spring 2007).

SELECTED COLLEGE SERVICE *Continued*

Faculty member, Phi Beta Kappa, Pi of Pennsylvania chapter: Member of Nominating Committee; previously served as Chapter Vice President, Chapter Historian.

Faculty advisor for Biology and Biochemistry majors, Biology and Neuroscience honors students, and science majors rostering internships. Advisor of first-year students (full year, June Advising, and mentor to new advisors) as well as interviewee for Sedehi Diversity Project. Interviewer and reader for President's Award. Participant in graduate school panels sponsored by the Career Center. Member of pre-law advising group.

Member of Biology Department Recruitment Committee, participant in Admissions Open Houses, and featured faculty member in Admissions documentary on Capstone experiences.

Member of Biology Department Seminar Committee

Participant in APC and Task Force sessions on curriculum renewal.

COURSES TAUGHT

Number in parentheses indicates number of terms in which a course has been offered

Biochemistry with laboratory (6), Muhlenberg College

Principles of Biology III: Introduction to Molecules and Cells lecture (3), recitation (4), and laboratory (2), Muhlenberg College

Concepts of Biology: Genes, Genomics, and Society (3), Muhlenberg College

Genomes and Gene Evolution (2), Muhlenberg College

Foods, Moods, and Broods: The Impact of Genetics on Society (1), Muhlenberg College

Biology of Disease (2), Kalamazoo College

Physiological Ecology (2), Kalamazoo College

RESEARCH STUDENTS MENTORED

At Muhlenberg College

Ashley Kendig '10, Independent study (Fall 2008-Spring 2009)

Evan Sheppard '09, Independent study (Spring 2008-Spring 2009)

Zachary Kuschner '09 (Summer 2008-Spring 2009)

Audrey Tiong '10, Independent study (Spring 2008)

Ross Cohen '09, Independent study (Spring 2007-Spring 2008)

John Schocken '09, Independent study (Spring & Summer 2007)

Hillary Gordon '07, Independent study and Honors research (Fall 2005-Spring 2007)

Nora Hudis '07, Independent study (Fall 2005-Spring 2007)

Angela Jablonski '08, Independent study (Spring & Summer 2006)

John Santa Maria '08, Undergraduate summer research (Summer 2005)

Sumana Rao, Visiting Scientist/Postdoctoral work (Summer 2005-Fall 2006)

Sunny Saxena, High school student (Summer 2005-Spring 2006)

RESEARCH STUDENTS MENTORED *Continued*

At Michigan State University

Nathan Lord

Megan Rich

Lauren Dew

ADDITIONAL TEACHING EXPERIENCE

Volunteer Tutor for reading and math skills, Capital Area Literacy Coalition, Lansing, MI 2002-2003

Workshop Instructor in a Howard Hughes Medical Institute-sponsored program for high school student participants, Kalamazoo College 2001

Student Leader of workshop for incoming graduate student teaching assistants, Princeton University 1998-99

Instructor, GRE Preparation Course, Kaplan Educational Center, New Brunswick, NJ 1997-98

ADDITIONAL RESEARCH EXPERIENCE

Undergraduate Research Student in the laboratories of Dr. Sharon Broadwater and Dr. Stanton Hoegerman, Department of Biology, College of William and Mary 1992-1994

National Science Foundation Summer Undergraduate Research Program Participant in the laboratory of Dr. Javier Lopez, Department of Biological Sciences, Carnegie Mellon University, Pittsburgh, PA 1992