

Kam D. Dahlquist, Ph.D.

Assistant Professor
Department of Biology
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Last modified: August 22, 2008

EDUCATION

- Ph.D.** **University of California, Santa Cruz** March 2000
Molecular, Cellular, and Developmental Biology Program
Advisor: Joseph D. Puglisi, Ph.D.
Committee: Harry F. Noller, Ph.D., Manuel Ares, Jr., Ph.D.
Thesis: *Interaction of Translation Initiation Factor IF1*
with the E. coli Ribosomal A Site
- B.A.** **Pomona College, Claremont, California** May 1993
Biology, *cum laude*
- University College, Oxford University, Oxford, England** Fall 1991
Study Abroad Program
Specialized tutorial in Philosophy of Science
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POSITIONS HELD

- Assistant Professor** 2005–present
Department of Biology, Loyola Marymount University, Los Angeles, California
- Assistant Professor** 2003–2005
Department of Biology, Vassar College, Poughkeepsie, New York
- Postdoctoral Fellow** 2000–2003
Gladstone Institute of Cardiovascular Disease, University of California, San Francisco
- Adjunct Lecturer** Spring 2000
Department of Biology, Santa Clara University, Santa Clara, California
- Visiting Researcher** 1997–2000
Department of Structural Biology, Stanford University, Stanford, California
- Research Assistant** 1994–1997
Department of Biology, University of California, Santa Cruz, California
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GRANTS, FELLOWSHIPS, HONORS, AWARDS**NSF-UBM (Interdisciplinary Training for Undergraduates in Biological and Mathematical Sciences)** 2007–2010\$240,000, *Analysis of Stress in Biological Systems**Principal Investigator:* Ben G. Fitzpatrick*Co-Principal Investigators:* Wendy J. Binder, Erika Camacho, Kam D. Dahlquist, Gary A. Kuleck*Faculty Associates:* Philippa M. Drennan, Martin G. Ramirez*Interdisciplinary Research Project with Ben G. Fitzpatrick entitled, Modeling Gene Expression Networks in Saccharomyces cerevisiae***Kadner-Pitts Research Grant, Department of Biology, Loyola Marymount University** 2007–2008\$10,000, *Mapping Gene Regulatory Networks in Yeast using DNA Microarrays, Mathematical Modeling, and GenMAPP***Merck-AAAS Undergraduate Science Research Program** 2006–2008

\$120,000 (\$60,000 plus \$60,000 matching funds from Loyola Marymount University)

*Chemical and Biological Aspects of Pollution in the Ballona Wetlands**Principal Investigator:* M. Catherine McElwain*Director and Co-Principal Investigator:* Kam D. Dahlquist*Co-Principal Investigators:* Rachel Adams, Lambert Doezema, John Dorsey, Philippa M. Drennan, Gary A. Kuleck, Jim Landry, Jeremy McCallum, David Moffet, Martin G. Ramirez, James Roe, and Carl R. Urbinati*Interdisciplinary Research Project with David Moffet and Carl R. Urbinati entitled Identifying Soil Bacteria and Biochemical Pathways in the Ballona Wetlands for the Bioremediation of Organic Pollutants***W.M. Keck Foundation** 2007\$300,000, *Equipment for the Molecular Analysis and Imaging Laboratory**Principal Investigator:* Gary A. Kuleck*Co-Principal Investigators:* Kam D. Dahlquist, David Moffet, Martin G. Ramirez, Carl R. Urbinati**Academic Technology Grant, Loyola Marymount University** 2007\$4,000, *Introducing DNA Microarray Technology in the New Laboratory Course, Biology 478: Molecular Biology of the Genome***Dartmouth Faculty Summer Institute Travel Award and Stipend** August 2006*ELSI Reunion and Conference, Dartmouth University, Hanover, New Hampshire***Summer Research Grant for New Faculty, Loyola Marymount University** 2006\$4,000, *The Transcriptional and Proteomic Response to Cold Shock and Recovery in Saccharomyces cerevisiae*

Merck-AAAS Undergraduate Science Research Program	2005
<i>Principal Investigator:</i> Richard B. Hemmes, Department of Biology, Vassar College	
<i>Interdisciplinary Research Project</i> with Eric S. Eberhardt, Department of Chemistry, Vassar College entitled <i>Examining the Molecular Details of Oxidative Stress from the Genome to the Proteome</i>	
[I declined my share of the funding upon my move to Loyola Marymount University]	
Mellon Faculty Conversations Award , Vassar College	2004–2005
\$2,000, <i>Effective Grading: A Tool for Learning and Assessment</i>	
Dartmouth Faculty Summer Institute Travel Award and Stipend	July 2004
<i>Ethical, Legal, and Social Implications of the Human Genome Project</i>	
Dartmouth University, Hanover, New Hampshire	
Sigma Xi , Full Membership	2004
Associate Membership	1992
Carolyn Grant Endowment for Embodied Learning , Vassar College	2004
\$2,000, Sponsored a visit by Jean Couch to lead workshops on <i>Balanced Posture</i> for <i>Introduction to Biological Thought: The Human Genome</i> and the campus community	
GAANN Fellowship , U.C. Santa Cruz	1995–1997
Phi Beta Kappa	1993
Vaile Prize in Biology , Pomona College	1993
Senior Service Award , Pomona College	1993
Eda May Haskell Library Prize , Pomona College	1993
Best Seminar in Plant or Microbial Biology	1992
West Coast Undergraduate Research Conference in the Biological Sciences	

RESEARCH EXPERIENCE

Assistant Professor 2005–present

Department of Biology, Loyola Marymount University, Los Angeles, California

Current Research Projects:

- Creation of MAPPs and Gene Databases for GenMAPP software; XMLPipeDB: A Reusable Open Source Tool Chain for Building Relational Databases from XML Sources The Global Transcriptional Response of *Saccharomyces cerevisiae* to Cold Shock and Recovery
- Mathematical Modeling of the Transcriptional Network Controlling the Environmental Stress Response in *Saccharomyces cerevisiae*
- Identifying Soil Bacterial and Biochemical Pathways in the Ballona Wetlands for the Bioremediation of Organic Pollutants

Research advisor for a total of 12 undergraduates and 1 Master's level student

Assistant Professor 2003–2005

Department of Biology, Vassar College, Poughkeepsie, New York

Research Projects:

- Creation of MAPPs and Gene Databases for GenMAPP software
- Transcriptional and Proteomic Response of *Saccharomyces cerevisiae* to Cold Shock and Recovery

Research advisor for a total of 6 undergraduate students

Postdoctoral Fellow 2000–2003

Gladstone Institute of Cardiovascular Disease, University of California, San Francisco

Advisor: Bruce R. Conklin, M.D.

Topic: Pathway-based analysis of microarray data; project management, design, testing, and documentation of the GenMAPP software

Visiting Researcher 1997–2000

Department of Structural Biology, Stanford University, Stanford, California

Advisor: Joseph D. Puglisi, Ph.D.

Research Assistant 1994–1997

Department of Biology, University of California, Santa Cruz

Advisor: Joseph D. Puglisi, Ph.D.

Rotation Student 1993–1994

Department of Biology, University of California, Santa Cruz

Advisor: Jack K. Okamuro, Ph.D.

Topic: Identification of additional members of the *Apetala2* family in *Arabidopsis thaliana*

Advisor: Jerry F. Feldman, Ph.D.

Topic: Mapping of the *Period2* locus in *Neurospora crassa*

Undergraduate Researcher

Summer 1993

Howard Hughes Summer Institute, University of California, Santa Cruz

Advisor: Jane Silverthorne, Ph.D.*Topic:* Characterization of phytochrome genes in the gymnosperm,
*Ginkgo biloba***Undergraduate Researcher**

1991–1992

Department of Biology, Pomona College, Claremont, California

Advisor: David W. Becker, Ph.D.*Topic:* Effect of heat stress on photosynthesis in a high-temperature strain of the
green alga, *Chlorella pyrenoidosa*

TEACHING EXPERIENCE**College Level****Assistant Professor**

2005–present

Department of Biology, Loyola Marymount University

Biology 201: Cell Function

- Sophomore-level course in four-semester lower division curriculum for biology majors

Biology 275: Human Genetics

- Fulfills University core requirement for non-science majors

Biology 439: Molecular Biology Applications

- Intensive laboratory course in molecular biology
- Students performed semi-independent cloning project based on my dissertation research

Biology 478: Molecular Biology of the Genome

- Subject of 2007 LMU Academic Technology Grant
- Intensive laboratory course in molecular biology
- Students perform a DNA microarray experiment
- DNA microarray data analyzed with GenMAPP, MAPPFinder, and other bioinformatics software

Biology 498/Computer Science 698: Advanced Topics in Bioinformatics

- Master's-level course cross-listed with Computer Science, team taught with John David N. Dionisio, Ph.D., Department of Electrical Engineering and Computer Science
- Project-based course developed XMLPipeDB software and Gene Database for GenMAPP using open source tools and the development environment of SourceForge

Biology 585: Issues in Biotechnology

- Seminar and capstone experience for biology majors
- Read, present, and discuss articles from the primary literature
- Present and discuss the ethical, legal, and social implications of biotechnology research and scientific misconduct

Delivered Guest Lecture in the following courses

- CMSI 686: Database Systems (April 2007)
- MATH 298: Biomathematics (April 2007)
- MGMT 498: Technology Ventures (March 2006)
- CMSI 486: Introduction to Database Systems (October 2005)

Assistant Professor

2003–2005

Department of Biology, Vassar College

Introduction to Biological Thought: The Human Genome

- Students used MAPPFinder to analysis a publicly available cancer microarray dataset
- Students learned scientific writing step-by-step, culminating in a final draft of a review of a primary research article about a gene involved in cancer
- Evaluated highly on organization and meeting course goals

Principles of Genetics

- Students used GenMAPP to draw a biochemical pathway and analyze microarray data related to their “wet” lab work
- Emphasized the “practical” aspects of successful scientific research through special exercise in teamwork
- Genetics and Society presentations, papers, and discussions taught students about the ethical implications of genetics research

Bioinformatics

- Projects-based computer laboratory using GenMAPP, MAPPFinder, and other bioinformatics software
- Students designed web sites to showcase their work
- Emphasized presentation skills and reading primary scientific literature

Adjunct Lecturer

Spring 2000

Department of Biology, Santa Clara University

Molecular Biology

- Taught lecture and lab to 20 upper-division, biology majors; was solely responsible for course content
- Developed lab exercise based on thesis research where students cloned different mutations in 16S rRNA into an *E. coli* expression vector and analyzed the phenotype of the mutant cells
- Developed bioinformatics lab exercise based on tools publicly available on the web
- Evaluated highly by students for stimulating independent thinking and for demonstrating an interest in them

Course Assistant

Winter 1998

Department of Biology, Stanford University

Cell Biology

- Led discussion of research articles

Teaching Assistant Fall 1994

Department of Biology, U.C. Santa Cruz

Concepts in Biology

- Lectured when professor was out of town

Teaching Assistant Summer 1994

Howard Hughes Summer Institute, U.C. Santa Cruz

Molecular and Cell Biology Laboratory

- Supervised semi-independent research projects on the cloning of *frequency* homologues in different species of fungi

K-12**Scientist Volunteer** 2001–2002

Herbert Hoover Middle School and U.C. San Francisco

Science and Health Education Partnership Triad Science Club

- Developed and led hands-on activities, including gel electrophoresis
- Quoted (anonymously) in book based on Triad program (in press)

Elective Teacher Fall 1994

Mission Hill Junior High School, U.C. Santa Cruz

Project SAME: Science and Math Equity

- Taught a girl-only elective class on building simple machines with the Lego-Logo system

SERVICE & PROFESSIONAL INVOLVEMENT**Internal****Loyola Marymount University****University-wide**Interviewer of candidates for Director of Sponsored Projects Office Summer 2008Scholarship of Teaching and Learning Working Group 2005–present**Frank R. Seaver College of Science and Engineering**Search Committee for Presidential Professorship
in Mathematical Biology 2006–presentInformation Technology Committee 2005**Department of Biology**Review of Faculty Research Funds subcommittee 2007–presentAPRC Review, Student-centered goals subcommittee 2006–presentWebmaster for Department web site 2006–presentSensitive Equipment subcommittee Spring 2006**Vassar College**Women in Science and Mathematics Faculty Adviser 2003–2005

Career Development Office Advisory Committee	2003–2005
Carolyn Grant Endowment Committee for Embodied Learning	2004–2005
Biology Department Curriculum Committee	2004–2005
Biology Department Community Committee	2004–2005
Women's Studies Steering Committee	2004–2005

External**West Coast Biological Sciences Undergraduate Research Conference**

Presentation and Poster Judge	2008
Member, Organizing Committee	2007
Poster Judge	2006

Open Bioinformatics Foundation

Chair, Bioinformatics Open Source Conference (BOSC)	July 18–19, 2008
Member, Board of Directors (pending ratification)	2007–present

International Society for Computational Biology

Member, Education Committee	2006–present
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Peer-reviewer for journals

<i>Cell Biology Education</i>	2003, 2006, 2008
<i>Molecular and Cellular Proteomics</i>	2004
<i>Bioinformatics</i>	2003

Chapter Reviewer, Watson et al., *Recombinant DNA*, 3rd edition 2006

Association for Women in Science (AWIS)

Chair, Programs Committee, Palo Alto Chapter	2001–2003
<ul style="list-style-type: none"> Organized and led monthly chapter meetings attended by 50-75 people Invited speakers (women scientists, career development) 	

Postdoctoral Women Peer-mentoring Group, U.C. San Francisco 2001–2003

Alumni Volunteer Admissions Interviewer, Pomona College 1995–1998, 2001

Phoenix II Seminars, San Jose, California

Graduate, Leadership Program	1994
Staff volunteer for courses and exit interviews	1994–1995

Memberships

American Society for Cell Biology	2003–present
International Society for Computational Biology	2002–present
Association for Women in Science (AWIS)	1998–present
American Association for the Advancement of Science	1995–present

PUBLICATIONS

Peer-reviewed Research

- Dionisio, J.D.N. and **Dahlquist, K.D.** (2008) Improving the Computer Science in Bioinformatics Through Open Source Pedagogy *SIGCSE Bulletin* 40: 115-119.
- Salomonis, N., Hanspers, K., Zambon, A.C., Vranizan, K., Lawlor, S.C., **Dahlquist, K.D.**, Doniger, S.W., Stuart, J., Conklin, B.R., & Pico, A.R. (2007) GenMAPP 2: New Features and Resources for Pathway Analysis. *BMC Bioinformatics* 8: 217.
- Segal, M.R., **Dahlquist, K.D.**, & Conklin, B.R. (2003) Regression Approaches for Microarray Data Analysis. *Journal of Computational Biology* 10: 961-980.
- Doniger, S.W., Salomonis, N., **Dahlquist, K.D.**, Vranizan, K., Lawlor, S.C., & Conklin, B.R. (2003) MAPPFinder: Using Gene Ontology and GenMAPP to Create a Global Gene-Expression Profile from Microarray Data. *Genome Biology* 4: R7.
- Dahlquist, K.D.**, Salomonis, N., Vranizan, K., Lawlor, S.C., & Conklin, B.R. (2002) GenMAPP, A New Tool for Viewing and Analyzing Microarray Data on Biological Pathways. *Nature Genetics* 31: 19-20.
- Dahlquist, K.D.** & Puglisi, J.D. (2000) Interaction of Translation Initiation Factor IF1 with the *E. coli* Ribosomal A site. *Journal of Molecular Biology* 299: 1-15.
- Recht, M.I., Douthewaite, S., **Dahlquist, K.D.**, & Puglisi, J.D. (1999) Effect of Mutations in the A site of 16S rRNA on Aminoglycoside Antibiotic-Ribosome Interaction. *Journal of Molecular Biology* 286: 33-43.
- Recht, M.I., Fourmy, D., Blanchard, S.C., **Dahlquist, K.D.**, & Puglisi, J.D. (1996) RNA Sequence Determinants for Aminoglycoside Binding to an A-site rRNA Model Oligonucleotide. *Journal of Molecular Biology* 262: 421-436.

Reviews, Book Chapters, Conference Proceedings

- Dahlquist, K.D.** (2004) Using GenMAPP and MAPPFinder to View Microarray Data on Biological Pathways and Identify Global Trends in the Data. In *Current Protocols in Bioinformatics* (Baxevanis, A.D., Davison, D.B., Page, R., Stein, L., Stormo, G., eds.), John Wiley & Sons, Inc., New York, N.Y., pp. 7.5.1-7.5.26.
- Puglisi, J.D., Blanchard, S.C., **Dahlquist, K.D.**, Eason, R.G., Fourmy, D., Lynch, S.R., Recht, M.I., & Yoshizawa, S. (1999) Aminoglycoside Antibiotics and Decoding. In *The Ribosome: Structure, Function, Antibiotics, and Cellular Interactions* (Garrett, R.A., Douthewaite, S.R., Liljas, A., Matheson, A.T., Moore, P.B., & Noller, H.F., eds.), pp. 419-429. ASM Press, Washington, D.C.

Dahlquist, K. & Puglisi, J.D. (1995) Investigating the Structure and Function of Translation Initiation Factor 1. *Nucleic Acids Symposium Series* **33**: 170-171.

Software and Databases

XMLPipeDB (A Reusable, Open Source Tool Chain for Building Relational Databases from XML Sources)

Co-Principal Investigator with John David N. Dionisio, 2006–present

Availability: <http://sourceforge.net/projects/xmlpipedb>

Web site: <http://xmlpipedb.cs.lmu.edu>

GenMAPP (Gene Map Annotator and Pathway Profiler) 1.0 and 2.0

Project Manager, 2000–2003

Metabolic Pathway MAPP Archive for *Saccharomyces cerevisiae*, 2005

Gene Database for *Escherichia coli* K12, 2006

Gene Database for *Arabidopsis thaliana*, 2008

Availability: <http://www.GenMAPP.org>

PRESENTATIONS

External Talks

Yeast Genetics and Molecular Biology Meeting

Toronto, Ontario, Canada, July 2008

Mathematical Modeling of the Transcriptional Regulatory Network Controlling the Cold Shock Response in Saccharomyces cerevisiae

Pepperdine University

Malibu, California, February 2008

Guest lecture in Molecular Biology course: *MAPPFinder Analysis of Prostate Cancer Microarray Data*

8th BioPathways Meeting

Vienna, Austria, July 2007

Mathematical Modeling of the Transcriptional Network Controlling the Environmental Stress Response in Saccharomyces cerevisiae

Bioinformatics Open Source Conference (BOSC)

Vienna, Austria, July 2007

XMLPipeDB: A Reusable, Open Source Tool Chain for Building Relational Databases from XML Sources

An Open Source Framework for Teaching Bioinformatics

MCD Biology Department, University of California, Los Angeles

Los Angeles, California, May 2007

Mapping the Gene Regulatory Networks in Yeast that Control the Environmental Stress Response to Cold Temperatures

Gladstone Institute of Cardiovascular Disease

San Francisco, California, October 2006, joint seminar with John David N. Dionisio

XMLPipeDB: A Reusable, Open Source Tool Chain for Building Relational Databases from XML Sources

ELSI Reunion and Conference, Dartmouth University

Hanover, New Hampshire, August 2006

Discussion of Ethical, Legal, and Social Implications of Biological Research Incorporated into Courses in Genetics, Molecular Biology Applications, and a Seminar on Issues in Biotechnology

Bioinformatics Open Source Conference (BOSC)

Fortaleza, Brazil, August 2006

XMLPipeDB: A Reusable, Open Source Tool Chain for Building Relational Databases from XML Sources

Bioinformatics Special Interest Group, California Institute of Technology

Pasadena, California, July 2006

Mapping Gene Regulatory Networks in Yeast using DNA Microarrays, Proteomics, and GenMAPP

Careers in Science Panel Discussion and Dinner, Claremont Colleges

Claremont, California, July 2006

Panelist

Natural Science Division, Pepperdine University

Malibu, California, October 2005

Mapping Gene Regulatory Networks in Yeast using DNA Microarrays, Proteomics, and GenMAPP

Department of Biological Sciences, Central Connecticut State University

New Britain, Connecticut, November 2004

Mapping Gene Regulatory Networks in Yeast using DNA Microarrays, Proteomics, and GenMAPP

BioQUEST Curriculum Consortium Summer Workshop 2004: Systems Biology Education

Beloit College, Beloit, Wisconsin, June 2004

GenMAPP and MAPPFinder for Systems Biology Education

Association for Laboratory Automation, smallTalk2003

San Jose, California, July 2003

*GenMAPP and MAPPFinder: Tools for Viewing and Analyzing Microarray Data on Biological Pathways***The Fifth BioPathways Consortium Meeting, Intelligent Systems for Molecular Biology**

Brisbane, Queensland, Australia, June 2003

*GenMAPP and MAPPFinder 2.0: Tools for the Organization, Display, and Exchange of Pathway Information***W. Henry Feinstone Symposium, University of Memphis**

Memphis, Tennessee, June 2003

Tutorial: GenMAPP and MAPPFinder, Tools for Viewing and Analyzing Microarray Data on using Biological Pathways and Gene Ontology
*Seminar: Analysis of Microarray Data from a Mouse Model of Dilated Cardiomyopathy, New Insights from GenMAPP***Department of Plant Biology, The Carnegie Institution of Washington**

Stanford, California, May 2003

*GenMAPP and MAPPFinder: Tools for Viewing and Analyzing Microarray Data using Biological Pathways and Gene Ontology***Possibilities and Pitfalls of Mining DNA Microarray Data: from Mice to Men, University of Wyoming**

Laramie, Wyoming, February 2003

Tutorial: GenMAPP and MAPPFinder, Tools for Viewing and Analyzing Microarray Data on Biological Pathways
*Seminar: Analysis of Microarray Data from a Mouse Model of Dilated Cardiomyopathy, New Insights from GenMAPP***Advanced Topics in Microarray Analysis, National Institutes of Health**

Bethesda, Maryland, January 2003

*GenMAPP and MAPPFinder, Tools for Viewing and Analyzing Microarray Data on Biological Pathways***Lillehei Heart Institute, University of Minnesota**

Minneapolis, Minnesota, October 2002

Tutorial: GenMAPP and MAPPFinder, Tools for Viewing and Analyzing Microarray Data on Biological Pathways
*Seminar: Analysis of Microarray Data from a Mouse Model of Dilated Cardiomyopathy, New Insights from GenMAPP***The Fourth BioPathways Consortium Meeting, Intelligent Systems for Molecular Biology**

Edmonton, Alberta, Canada, August 2002

GenMAPP and Gene Ontology: Tools for the Organization, Display and Exchange of Pathway Information

Physiological Genomics of Cardiovascular Disease: from Technology to Physiology

San Francisco, California, February 2002

GenMAPP: A New Tool for Viewing and Analyzing Microarray Data on Biological Pathways

Bay Area Bioinformatics Discussion Group

Stanford, California, January 2002

GenMAPP: A New Tool for Viewing and Analyzing Microarray Data on Biological Pathways

NIH-NHLBI Programs for Genomic Applications, External Scientific Panel Review

Bethesda, Maryland, June 2001

GenMAPP Enriches the BayGenomics Gene Trap Resource

Iconix Pharmaceuticals

Mountain View, California, June 2001

GenMAPP: A New Tool for the Functional Mapping of Microarray Data

Department of Neurosciences, University of New Mexico Health Sciences Center

Albuquerque, New Mexico, October 2000

Defining the Genomic Responses to G Protein Signals by Engineering Receptors and G Proteins in Transgenic Mice

National Center for Genome Resources

Santa Fe, New Mexico, October 2000

Defining the Genomic Responses to G Protein Signals by Engineering Receptors and G Proteins in Transgenic Mice

University of California, Berkeley, History of Science Graduate Student Workshop

Berkeley, California, January 1997

Panelist: The Relevance of History of Science to Practicing Scientists

Bay Area RNA Club

San Francisco, California, June 1996

Rites of Initiation: Decoding the role of IF1

Internal Talks

President's Day Forum, Loyola Marymount University

Los Angeles, California, March 2008

The \$1000 Genome

Department of Biology, Loyola Marymount University, Kadner-Pitts Research Grant Talk

Los Angeles, California, March 2008

Brrrr—How Do Yeast Cope When It's Cold Outside? Using DNA Microarrays and Mathematical Modeling to Understand Gene Regulatory Networks in Yeast

Center for Teaching Excellence, Loyola Marymount University

Los Angeles, California, March 2008

How Do You Teach “Research”? Incorporating DNA Microarray Technology into an Upper-division Biology Laboratory Course

Parent’s Weekend, Loyola Marymount University

Los Angeles, California, February 2008

How Close are We to GATTACA?

President’s Day Forum, Loyola Marymount University

Los Angeles, California, March 2007

How Close are We to GATTACA?

Science Seminar and Film Series, Loyola Marymount University

Los Angeles, California, organized by LMU undergraduate Morgan Henry ’07, November 2006

Our Post-genomic Future, accompanied by screening of *GATTACA*

Junior Faculty Seminar Series, Loyola Marymount University

Los Angeles, California, joint seminar with John David N. Dionisio, November 2006,

Collaborating Early and Often: Bringing Biology and Computer Science Together Through an Open Source Culture

President’s Day Forum, Loyola Marymount University

Los Angeles, California, March 2006

The Human Genome and Beyond

Women’s Studies Brown Bag Lunch, Loyola Marymount University

Los Angeles, California, November 2006

Jesuit and Feminist Education: Transformative Discourses for Teaching & Learning Conference Report

Department of Mathematics, Loyola Marymount University

Los Angeles, California, October 2005

What is Bioinformatics?

Women’s Studies Program First Friday, Vassar College

Poughkeepsie, New York, October 2004

The Ethical, Legal, and Social Implications of the Human Genome Project: Feminist Reflections (with Mary Shanley, Department of Political Science, Vassar College)

Vassar College Orientation Week Faculty Research Talks

Poughkeepsie, New York, September 2004

Matthew Vassar Enters the Genomics Era: DNA Microarrays, Proteomics, and Bioinformatics in Yeast

Gladstone Institute of Cardiovascular Disease Scientists Meeting

San Francisco, California, May 2003

GenMAPP 2.0 and Beyond... Connecting Scientists and Science Education in the Genomics Era

Gladstone Institute of Cardiovascular Disease Scientists Meeting

San Francisco, California, May 2002

Analysis of Microarray Data from a Mouse Model of Dilated Cardiomyopathy: New Insights from GenMAPP

U.C. San Francisco, Pharmaceutical Sciences and Pharmacogenomics Program Retreat

Marshall, California, November 2001

GenMAPP: A New Tool for Viewing and Analyzing Microarray Data on Biological Pathways

The J. David Gladstone Institutes Joint Scientific Retreat

Pacific Grove, California, May 2001

GenMAPP: A New Tool for the Functional Mapping of Microarray Data

Gladstone Institute of Neurological Disease Weekly Seminar

San Francisco, California, November 2000

GenMAPP: A New Tool for the Functional Mapping of Microarray Data

Stanford University, Structural Biology Department Retreat

Pacific Grove, California, November 1998

Interactions between Initiation Factor 1 and the E. coli ribosome

Stanford University, Molecular Biophysics Club

Stanford, California, February 1998

Interactions of Translation Initiation Factor 1 with the Ribosomal A site

U.C. Santa Cruz, MCD Biology Seminar

Santa Cruz, California, May 1996

Investigating the Structure and Function of Translation Initiation Factor 1 in E. coli

U.C. Santa Cruz, RNA Club

Santa Cruz, California, December 1994

Investigating the Structure and Function of Translation Initiation Factor 1 in E. coli

External Posters (*indicates undergraduate co-author, **indicates Master's student co-author)**Yeast Genetics and Molecular Biology Meeting**

Toronto, Ontario, Canada, July 2008

with Stephanie D. Kuelbs*, Kevin C. Entzminger*, Kenny R. Rodriguez*, Ben G. Fitzpatrick

Mathematical Modeling of the Transcriptional Regulatory Network Controlling the Cold Shock Response in Saccharomyces cerevisiae

Intelligent Systems for Molecular Biology

Toronto, Ontario, Canada, July 2008

with Stephanie D. Kuelbs*, Kevin C. Entzminger*, Kenny R. Rodriguez*, Ben G. Fitzpatrick

Mathematical Modeling of the Transcriptional Regulatory Network Controlling the Cold Shock Response in Saccharomyces cerevisiae

International Conference on Systems Biology

Long Beach, California, October 2007

with Stephanie Kuelbs*, Nathan C. Wanner*, Ben G. Fitzpatrick, and Erika Camacho

Mathematical Modeling of the Transcriptional Network Controlling the Environmental Stress Response in Saccharomyces cerevisiae

Intelligent Systems for Molecular Biology

Vienna, Austria, July 2007

with Nathan C. Wanner* and Erika Camacho

Mathematical Modeling of the Transcriptional Network Controlling the Environmental Stress Response in Saccharomyces cerevisiae

San Diego Systems Biology Symposium: Systems to Synthesis

Salk Institute, La Jolla, California, January 2007

with Jeffrey Nicholas** and John David N. Dionisio

XMLPipeDB: A Reusable, Open Source Tool Chain for Building Relational Databases from XML Sources

American Society for Cell Biology Annual Meeting

San Diego, California, December 2006

with Wesley T. Citti*, Matthew Mejia*, Eric S. Eberhardt

The Transcriptional and Proteomic Response to Cold Shock and Recovery in Saccharomyces cerevisiae

Intelligent Systems for Molecular Biology

Fortaleza, Brazil, August 2006

with, Joey Barrett**, Joe Boyle**, Adam Carasso**, David Hoffman**, Babak Naffas**, Jeffrey Nicholas**, Roberto Ruiz**, Scott Spicer**, John David N. Dionisio

XMLPipeDB: A Reusable, Open Source Tool Chain for Building Relational Databases from XML Sources

Intelligent Systems for Molecular Biology

Glasgow, Scotland, United Kingdom, August 2004

*GenMAPP and MAPPFinder 2.0: Tools for Viewing and Analyzing Genomic Data Using Gene Ontology and Biological Pathways***Intelligent Systems for Molecular Biology**

Brisbane, Queensland, Australia, June 2003

*GenMAPP and MAPPFinder 2.0: Tools for Viewing and Analyzing Genomic and Proteomic Data Using Gene Ontology and Biological Pathways***Intelligent Systems for Molecular Biology**

Edmonton, Alberta, Canada, August 2002

*GenMAPP: A Tool for Viewing and Analyzing Microarray Data on Biological Pathways***Physiological Genomics of Cardiovascular Disease: from Technology to Physiology**

San Francisco, California, February 2002

*GenMAPP: A New Tool for Viewing and Analyzing Microarray Data on Biological Pathways***The Third International Meeting on Microarray Data Standards, Annotations, Ontologies and Databases**

Stanford, California, March 2001

*GenMAPP: A New Approach for the Functional Mapping of Microarray Data***The Ribosome: Structure, Function, Antibiotics, and Cellular Interactions**

Helsingør, Denmark, June 1999

*Interactions of Translation Initiation Factor 1 with the Ribosomal A site***RNA Society Meeting**

Madison, Wisconsin, May 1998

*Interactions of Translation Initiation Factor 1 with the Ribosomal A site***RNA Structure Meeting**

Santa Cruz, California, June 1997

*Interactions of Translation Initiation Factor 1 (IF1) with the Ribosomal A site***RNA Society Meeting**

Banff, Alberta, Canada, May 1997

*Interactions of Translation Initiation Factor 1 with the Ribosomal A site***Keystone Symposium: RNA-Protein Interactions**

Taos, New Mexico, February 1997

Interactions of Translation Initiation Factor 1 (IF1) with the Ribosomal A site

RNA Society Meeting

Madison, Wisconsin, May 1996

Translation Initiation Factor 1 (IF1) is an A-site Ribosomal RNA Binding Protein

Symposium on RNA Biology I: RNA-Protein Interactions

Research Triangle Park, North Carolina, October 1995

Investigating the Structure and Function of Translation Initiation Factor 1 in Escherichia coli

Frontiers in Translation

Victoria, British Columbia, Canada, May 1995

Investigating the Structure and Function of Translation Initiation Factor 1 in E. coli

Sigma Xi Forum: Scientists, Educators, and National Standards: Action at the Local Level

Atlanta, Georgia, April 1994

Science Mentor Program at Mission Hill Junior High School

Internal Posters

Teaching with Technology Forum

Vassar College, Poughkeepsie, New York, April 2004

Poster: GenMAPP: Connecting Students to Cutting-edge Genomics and Bioinformatics Research

The J. David Gladstone Institutes Joint Scientific Retreat

Pacific Grove, California, May 2003

GenMAPP and MAPPFinder 2.0

U.C. San Francisco, Pharmaceutical Sciences and Pharmacogenomics Program Retreat

Marshall, California, November 2002

GenMAPP: A Tool for Viewing and Analyzing Microarray Data on Biological Pathways

The J. David Gladstone Institutes Joint Scientific Retreat

Pacific Grove, California, May 2002

Analysis of Microarray Data from Mouse Models of Dilated and Hypertrophic Cardiomyopathy: New Insights from GenMAPP

U.C. San Francisco, Cardiovascular Research Institute Retreat

Tahoe City, California, November 2001

GenMAPP: A New Tool for Viewing and Analyzing Microarray Data on Biological Pathways

U.C. San Francisco, Biomedical Sciences Program Retreat

Tahoe City, California, November 2000

*GenMAPP: A New Approach for the Functional Mapping of Microarray Data***U.C. San Francisco, Tetrad Retreat**

Tahoe City, California, September 2000

*GenMAPP: A New Approach for the Functional Mapping of Microarray Data***Student Presentations and Posters** (*indicates undergraduate student, **bold** indicates presenting author)**Annual Meeting of the Society for Mathematical Biology**

Toronto, Ontario, Canada, August 2008

Stephanie D. Kuelbs*, Kevin C. Entzminger*, Kenny R. Rodriguez*, Ben G. Fitzpatrick, Kam D. Dahlquist*Mathematical Modeling of the Transcriptional Network Controlling the Cold Shock Response in Saccharomyces cerevisiae***Yeast Genetics and Molecular Biology**

Toronto, Ontario, Canada, July 2008

Kevin C. Entzminger*, Kenny R. Rodriguez*, Stephanie D. Kuelbs*, Kam D. Dahlquist
*Does Cin5p Regulate the Early Transcriptional Response to Cold Shock in Saccharomyces cerevisiae?***West Coast Biological Sciences Undergraduate Research Conference**

Point Loma Nazarene University, San Diego, California, April 2008

Wesley T. Citti*, **Jeffrey D. McGowan***, Kam D. Dahlquist, Carl R. Urbinati*Identification and Diversity Analysis of Soil Bacteria in the Ballona Wetlands***Elizabeth M. Liu***, **Olivia S. Sakhon***, **Robert Hybki***, Kam D. Dahlquist*The Global Transcriptional Response of Saccharomyces cerevisiae to Cold Shock and Recovery***Kenny R. Rodriguez***, **Kevin C. Entzminger***, **Stephanie D. Kuelbs***, Kam D. Dahlquist*Does the Transcription Factor CIN5 Regulate the Transcriptional Response to Cold Shock in Saccharomyces cerevisiae?***Pacific Coast Undergraduate Math Conference**

Loyola Marymount University, Los Angeles, California, April 2008

Stephanie D. Kuelbs**Mathematical Modeling of the Transcriptional Network Controlling the Cold Shock Response in Saccharomyces cerevisiae*

Southern California Conference for Undergraduate Research

California State University, Los Angeles, November 2007

Wesley T. Citti*, **Jeffrey D. McGowan***, Kam D. Dahlquist, Carl R. Urbinati
Identifying Soil Bacteria and Biochemical Pathways for Bioremediation in Ballona Wetlands

Elizabeth M. Liu*, **Olivia S. Sakhon***, **Robert Hybki***, Kam D. Dahlquist
*The Global Transcriptional Response of *Saccharomyces cerevisiae* to Cold Shock and Recovery*

Kevin C. Entzminger*, **Stephanie D. Kuelbs***, **Kenny R. Rodriguez***, Kam D. Dahlquist
*Mathematical Modeling and Biological Analysis of the Transcriptional Response to Cold Shock in *Saccharomyces cerevisiae**

Interdisciplinary Student Research Symposium

Loyola Marymount University, Los Angeles, California, October 2007

Wesley T. Citti*, **Jeffrey D. McGowan***, Kam D. Dahlquist, Carl R. Urbinati
Identifying Soil Bacteria and Biochemical Pathways for Bioremediation in Ballona Wetlands

Kevin C. Entzminger*, **Stephanie D. Kuelbs***, **Kenny R. Rodriguez***, Kam D. Dahlquist
*Mathematical Modeling and Biological Analysis of the Transcriptional Response to Cold Shock in *Saccharomyces cerevisiae**

Annual Meeting of the Society for Mathematical Biology

San Jose, California, August 2007

Nathan C. Wanner*, Erika Camacho, Kam D. Dahlquist
*Mathematical Modeling of the Transcriptional Network Controlling the Environmental Stress Response in *Saccharomyces cerevisiae**

West Coast Biological Sciences Undergraduate Research Conference

Loyola Marymount University, Los Angeles, California, April 2007

Wesley T. Citti*, Kam D. Dahlquist, Carl R. Urbinati
Identifying Bacteria and Biochemical Pathways for Bioremediation in Ballona Wetlands

Elizabeth M. Liu*, **Olivia S. Sakhon***, Kam D. Dahlquist
*The Global Transcriptional Response of *Saccharomyces cerevisiae* to Cold Shock and Recovery*

Sigma Xi Induction Ceremony and Poster Session

Loyola Marymount University, Los Angeles, California, April 2007

Wesley T. Citti*, Kam D. Dahlquist, Carl R. Urbinati
Identifying Bacteria and Biochemical Pathways for Bioremediation in Ballona Wetlands

Elizabeth M. Liu*, **Olivia S. Sakhon***, Kam D. Dahlquist
*The Global Transcriptional Response of *Saccharomyces cerevisiae* to Cold Shock and Recovery*

San Diego Systems Biology Symposium: Systems to Synthesis

Salk Institute, La Jolla, California, January 2007

Nathan C. Wanner*, Erika Camacho, Kam D. Dahlquist*Mathematical Modeling of the Transcriptional Network Controlling the
Environmental Stress Response in Saccharomyces cerevisiae**Nathan C. Wanner won the third place poster prize at this symposium.***Southern California Conference for Undergraduate Research**

Occidental College, Los Angeles, California, November 2006

Wesley T. Citti*, Kam D. Dahlquist, Carl R. Urbinati*Identifying Bacteria and Biochemical Pathways for Bioremediation in Ballona
Wetlands***Bellarmino Forum on Environmental Responsibility**

Loyola Marymount University, Los Angeles, California, November 2006

Wesley T. Citti*, Kam D. Dahlquist, Carl R. Urbinati*Identifying Bacteria and Biochemical Pathways for Bioremediation in Ballona
Wetlands***West Coast Biological Sciences Undergraduate Research Conference**

Point Loma Nazarene University, San Diego, California, April 2006

Wesley T. Citti*, Heather King*, and Kam D. Dahlquist*The Transcriptional Response of Saccharomyces cerevisiae to Cold Shock and
Recovery**Wesley T. Citti won a poster award at this conference.***2004 Undergraduate Research Summer Institute Symposium**

Vassar College, Poughkeepsie, New York, September 2004

Meredith Braymer*, Eric S. Eberhardt, Kam D. Dahlquist*Global Changes in Gene Expression during Cold Shock and Recovery in
Saccharomyces cerevisiae***Jessica Heckman*** and Kam D. Dahlquist*New Resources for GenMAPP 2.0: A New Gene Database and Pathway MAPPs
for the Comparison of Changes in Gene Expression due to Environmental
Stresses in Saccharomyces cerevisiae and Escherichia coli***Nikoleta Tsvetanova***, Meredith Braymer*, Eric S. Eberhardt*Cold-Shock Response in Saccharomyces cerevisiae*

PROFESSIONAL DEVELOPMENT WORKSHOPS ATTENDED**BioQUEST Curriculum Consortium Summer Workshop 2007:**

June 2007

Exploratory Evolution EducationBeloit College, Beloit, Wisconsin

Women in bioScience Conference Association for Women in Science, San Diego, California	May 2007
Pedagogy Workshop for Second-year Faculty Loyola Marymount University, Los Angeles, California	2006–2007
Jesuit and Feminist Education: Transformative Discourses for Teaching & Learning Conference Fairfield University, Fairfield, Connecticut	October 2006
Collegium: A Colloquy on Faith and Intellectual Life St. John's University, Collegeville, Minnesota	June 2006
BioQUEST Curriculum Consortium Summer Workshop 2005: Investigating Interdisciplinary Interactions Beloit College, Beloit, Wisconsin (attended with Erika Camacho who was then in the Department of Mathematics at LMU)	June 2005
The Embodied Voice Faculty Workshop Vassar College, Poughkeepsie, New York	Spring 2005
Dartmouth Faculty Summer Institute Ethical, Legal, and Social Implications of the Human Genome Project Dartmouth University, Hanover, New Hampshire	July 2004
BEDROCK Workshop–Bioinformatics in Biology Education: Working with Sequence, Structure, and Function Cornell Theory Center, Ithaca, New York	October 2003
Analysis of Regulatory Sequences Controlling Expression of Biological Networks; Extracting Biological Information from System-scale Protein Interactome Data Intelligent Systems for Molecular Biology Tutorials, Brisbane, Queensland, Australia	June 2003
Strategies in Gender Equitable Teaching U.C. Berkeley Extension, Berkeley, California	2001–2002
Beginning Dreamweaver 4 Ciber Training Center, San Francisco, California	April 2002
Advanced Microsoft Access 97 New Horizons Computer Learning Centers, Inc., San Francisco, California	August 2001
Biostatistics 183: Introduction to Statistical Analysis U.C. San Francisco, San Francisco, California	Fall 2001

Art of Lecturing

Gladstone Institutes, San Francisco, California

Summer 2001

Scientific Writing

Gladstone Institutes, San Francisco, California

Spring 2001

Microarray Academy

Genomics Core, Gladstone Institutes, San Francisco, California

Fall 2000