Kam D. Dahlquist, Ph.D.
Associate Professor of Biology
Loyola Marymount University

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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

POSITIONS HELD

William F. McLaughlin Chair of Biology	2010–2012
Associate Professor	2009–present
Assistant Professor	2005–2009

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

GRANTS, FELLOWSHIPS, HONORS, AWARDS

ASBMB Thematic Best Poster Award in Systems Biology   2012
$500, for poster presented at the American Society for Biochemistry and Molecular Biology
Annual Meeting, April 20-24, 2012, San Diego California

ASBMB and NSF Travel Grant   2012
$2,250, to present at the American Society for Biochemistry and Molecular Biology
Annual Meeting, April 20-24, 2012, San Diego California

NSF-DMS Mathematical Biology, MCB Genes and Genome Systems   2009–2013
$246,123, *Collaborative Research and RUI: Stochastic Dynamic Network Models of Gene
Regulation under Environmental Stress*
Principal Investigator: **Kam D. Dahlquist**; *Co-Principal Investigator*: Ben G. Fitzpatrick

Loyola Marymount University Center for Teaching Excellence Travel Grant, $740   2009

NSF-UBM (Interdisciplinary Training for Undergraduates   2007–2010
in Biological and Mathematical Sciences)
$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*

W.M. Keck Foundation   2007–2010
$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

Kadner-Pitts Research Grant   2007–2008
Department of Biology, Loyola Marymount University
$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*

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
  Principal Investigator: Richard B. Hemmes, Department of Biology, Vassar College
  Interdisciplinary Research Project with Eric S. Eberhardt, Department of Chemistry, Vassar College
  entitled *Examining the Molecular Details of Oxidative Stress from the Genome to the Proteome*
  [I declined my share of the funding upon my move to Loyola Marymount University]

Mellon Faculty Conversations Award, Vassar College   2004–2005
  $2,000, *Effective Grading: A Tool for Learning and Assessment*

Dartmouth Faculty Summer Institute Travel Award and Stipend   July 2004
  Ethical, Legal, and Social Implications of the Human Genome Project
  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 *Balanced Posture*
  for *Introduction to Biological Thought: The Human Genome* 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

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RESEARCH EXPERIENCE

Associate Professor   2009–present
Assistant Professor   2005–2009
  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 34 undergraduates and 1 Master's level student at LMU since 2005

Assistant Professor   2003–2005

Department of Biology, Vassar College, Poughkeepsie, New York
  Research Projects:
- Transcriptional and Proteomic Response of *Saccharomyces cerevisiae* to Cold Shock and Recovery
- Creation of MAPPs and Gene Databases for GenMAPP software
  Research advisor for a total of 6 undergraduate students at Vassar 2003–2005

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 *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

<u>**College Level**</u>
  Associate Professor   2009–present
  Assistant Professor   2005–2009

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 367/Computer Science 367/Honors 398: Biological Databases
- Cross-listed and team taught with John David N. Dionisio, Ph.D., Department of Electrical Engineering and Computer Science
- Interdisciplinary student teams created GenMAPP Gene Databases for *Plasmodium falciparum*, *Vibrio cholerae*, *Pseudomonas aerugenosa*, and *Staphylococcus aureus*, and others using XMLPipeDB open source software
- Students maintained online laboratory notebooks using MediaWiki software

Biology 398: Bioinformatics Laboratory
- Project-based computer laboratory using GenMAPP, MAPPFinder, and other bioinformatics software
- Projects include sequence and structural analysis of the gp120 protein of HIV and analysis of DNA microarray experiments
- Students maintain online laboratory notebooks using Google Sites or OpenWetware.org wiki

Biology 398/Mathematics 388: Biomathematical Modeling
- Cross-listed and team taught with Ben G. Fitzpatrick, Ph.D., Department of Mathematics
- Students create mathematical models of nitrogen metabolism and the transcriptional network in budding yeast
- Students maintain online laboratory notebooks using OpenWetware.org wiki

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
- Data analyzed with GenMAPP, MAPPFinder, and other bioinformatics software

Biology 498/Computer Science 698: Special Studies 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

Honors 240: On the Nature of Things
- University core requirement for students in the Honors Program
- An examination of the history, philosophy, and nature of scientific discovery, theory, and practice
- Focus on recent advances in biology, specifically biotechnology and genomics, epistemology, and genetic determinism
- Seminar-based discussion course with presentations and final projects relating to the students' major field of study

Delivered Guest Lecture in the following courses
- BIOE630: Genetic Medicine (October 2009)
- BIOL 114: Biology for Engineers (March 2009)
- PHIL 666: Philosophy of Science (October 2008)
- 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
- Project-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

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

Digital Scholarship Repository Project Team	2010–2011
High Performance Computing Task Force	2010–2011
Research Council	2009–present
Valedictorian Committee	2009, 2011
Interviewer of candidates for Director of Sponsored Projects Office	Summer 2008
Scholarship of Teaching and Learning Brown Bag Group	2005–present

  Frank R. Seaver College of Science and Engineering

Pre-tenure Faculty Guidance Committee	2010–2011
Information Technology Committee	2005, 2009–2010
Search Committee for Presidential Professorship in Computational Biology	2008–2010
Search Committee for Presidential Professorship in Mathematical Biology	2006–2008

  Department of Biology

Search Committee for Biochemist/Cell Physiologist	2010–2011
Collected and edited Department Laboratory Safety Documents	Fall 2010
Faculty mentor	2009–present
Coordinator for Biology 201: Cell Function	2009–present
Search Committee for Vertebrate Physiologist	2009–2010
APRC Review Committee	2006–2011
Chair	2011
Webmaster for Department web site	2006–present
Review of Faculty Research Funds subcommittee	2006–2008
Sensitive 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
  Intel International Science and Engineering Fair

Sigma Xi Special Awards Judge, Los Angeles, California	2011

West Coast Biological Sciences Undergraduate Research Conference
    Presentation and Poster Judge   2008
    Member, Organizing Committee   2007
    Poster Judge   2006

Open Bioinformatics Foundation
    Abstract Reviewer, Session Chair, Bioinformatics Open Source Conference (Long Beach)   2012
    Codefest Host, Loyola Marymount University   2012
    Abstract Reviewer, Bioinformatics Open Source Conference (Vienna)   2011
    At-large Member, Board of Directors   2008–2010
    Chair, Bioinformatics Open Source Conference (Boston)   July 9–10, 2010
    Chair, Bioinformatics Open Source Conference (Stockholm)   June 27–28, 2009
    Chair, Bioinformatics Open Source Conference (Toronto)   July 18–19, 2008

International Society for Computational Biology
    Member, Education Committee   2006–present

Genome Consortium for Active Teaching (GCAT)
    Alternate scanning center for DNA microarrays   2010–present

Grants and Publishing
    Review Panel, National Science Foundation   June 2009, December 2011
    Associate Editor, *International Journal of Computational Bioscience*   2009–2010
    Peer-reviewer
        Journal of Computational Science Education   2011
        CBE – Life Sciences Education   2003, 2006, 2008, 2009
        Bioinformatics   2003, 2009
        EURASIP Journal on Advances in Signal Processing   2009
        PLoS ONE   2009
        Briefings in Functional Genomics and Proteomics   2008
        Molecular and Cellular Proteomics   2004
    Chapter Reviewer, Watson et al., *Recombinant DNA*, 3rd edition   2006

Association for Women in Science (AWIS)
    Chair, Programs Committee, Palo Alto Chapter   2001–2003
       • 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 Biochemistry and Molecular Biology   2009–present
    Open Bioinformatics Foundation   2006–present
    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

Demir, E., Cary, M.P., Paley, S., Fukuda, K., Lemer, C., Vastrik, I., Wu, G., D'Eustachio, P., Schaefer, C., Luciano, J., Schacherer, F., Martinez-Flores, I., Hu, Z., Jimenez-Jacinto, V., Joshi-Tope, G., Kandasamy, K., Lopez-Fuentes, A.C., Mi, H., Pichler, E., Rodchenkov, I., Splendiani, A., Tkachev, S., Zucker, J., Gopinath, G., Rajasimha, H., Ramakrishnan, R., Shah, I., Syed, M., Anwar, N., Babur, O., Blinov, M., Brauner, E., Corwin, D., Donaldson, S., Gibbons, F., Goldberg, R., Hornbeck, P., Luna, A., Murray-Rust, P., Neumann, E., Reubenacker, O., Samwald, M., van Iersel, M., Wimalaratne, S., Allen, K., Braun, B., Whirl-Carrillo, M., Cheung, K.H,, **Dahlquist, K.**, Finney, A., Gillespie, M., Glass, E., Gong, L., Haw, R., Honig, M., Hubaut, O., Kane, D., Krupa, S., Kutmon, M., Leonard, J., Marks, D., Merberg, D., Petri, V., Pico, A., Ravenscroft, D., Ren, L., Shah, N., Sunshine, M., Tang, R., Whaley, R., Letovksy, S., Buetow, K.H., Rzhetsky, A., Schachter, V., Sobral, B.S., Dogrusoz, U., McWeeney, S., Aladjem, M., Birney, E., Collado-Vides, J., Goto, S., Hucka, M., Le Novère, N., Maltsev, N., Pandey, A., Thomas, P., Wingender, E., Karp, P.D., Sander, C., and Bader, G.D. (2010) The BioPAX Community Standard for Pathway Data Sharing. *Nature Biotechnology* **28**: 935-942.

Ogando, D.G., **Dahlquist, K.D.**, Alizadeh, M., Kunchithapautham, K., Li, J., Yu, N., LaVail, M.M., Rohrer, B., Vollrath, D., and Danciger, M. (2010) Candidate Genes for Chromosomes 6 and 10 Quantitative Trait Loci for Age-related Retinal Degeneration in Mice. *Molecular Vision* **16**: 1004-1018.

Dionisio, J.D.N. and **Dahlquist, K.D.** (2008) Improving the Computer Science in Bioinformatics Through Open Source Pedagogy *ACM 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., editor (2010) Proceedings of the 11th Annual Bioinformatics Open Source Conference (BOSC) 2010. *BMC Bioinformatics* **11**(Suppl 12): S1-S13.

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://xmlpipedb.cs.lmu.edu , http://sourceforge.net/projects/xmlpipedb
GenMAPP (Gene Map Annotator and Pathway Profiler) 1.0 and 2.0
    Project Manager, 2000–2003
    Metabolic Pathway MAPP Archive for *Saccharomyces cerevisiae*, 2005; for *E. coli* K12, 2008
    Gene Database for *Escherichia coli* K12, 2006, 2009; *Arabidopsis thaliana*, 2007, 2009; *Plasmodium
    falciparum*, 2009; *Vibrio cholerae*, 2009, 2010; *Pseudomonas aerugenosa* PAO1, 2010;
    Staphylococcus aureus MRSA 252, 2010, *Mycobacterium tuberculosis* H37Rv, 2010, *Helicobacter
    pylori*, 2011, *Mycobacterium smegmatis*, 2011, and *Salmonella typhimurium*, 2011.
    Availability: http://www.GenMAPP.org, http://sourceforge.net/projects/xmlpipedb

PRESENTATIONS

External Talks

Chapman University
    Orange, California, May 2012
        *Brrrr--How Do Yeast Cope When It's Cold Outside? Using DNA Microarrays and Mathematical
        Modeling to Understand Gene Regulatory Networks in Saccharomyces cerevisiae*
American Society for Biochemistry and Molecular Biology Annual Meeting
    San Diego, California, April 2012
        *Regulatory Dynamics of the Transcriptional Network Controlling the Cold Shock Response in
        Saccharomyces cerevisiae*
Harvey Mudd College
    Claremont, California, April 2012
        *Brrrr--How Do Yeast Cope When It's Cold Outside? Using DNA Microarrays and Mathematical
        Modeling to Understand Gene Regulatory Networks in Saccharomyces cerevisiae*
Mount Saint Mary's College
    Los Angeles, California, March 2012
        Teaching and Learning Bioinformatics
**Career Day in Fields of Science, Institute for Integrative Genome Biology, University of California,
Riverside**
    Riverside, California, May 2011
        Career Envy: The Road to a Successful PUI Position
Graduate Student Career Workshop, University of California, Los Angeles
    Los Angeles, California, February 2011
        Career Envy: The Road to a Successful PUI Position
Postdoctoral Scholars Association Career Workshop, University of California, Irvine
    Irvine, California, November 2010
        Career Envy: The Road to a Successful PUI Position

Beyond Bio2010 Symposium: Celebration and Opportunities, National Academy of Sciences
    Washington, D.C., May 2010 (with John David N. Dionisio)
        An Open Source, Open Science Pedagogy for Computational Biology
Young Women in Computing and CREST, New Mexico State University
    Las Cruces, New Mexico, February 2010
        It's a Good Time to Be a Computational Biologist!
        Bioinformatics Workshop
Bioinformatics Open Source Conference (BOSC)
    Stockholm, Sweden, June 2009
        XMLPipeDB: A Reusable, Open Source Tool Chain for Building Relational Databases from
        XML Sources
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

<u>Internal Talks</u>

Department of Biology Seminar, Loyola Marymount University
    Los Angeles, California, October 2012
        Brrrr--How Do Yeast Cope When It's Cold Outside? Using DNA Microarrays and Mathematical Modeling to Understand Gene Regulatory Networks in Saccharomyces cerevisiae
Friday Faculty Colloquium Series, Loyola Marymount University
    Los Angeles, California, February 2010
        The Genome is the New Soul
Biology/Bioethics Movie Night, Loyola Marymount University
    Los Angeles, California, October 2009
        The Biology of Cancer, followed by a screening of the film *Wit*
Junior Faculty Seminar, Loyola Marymount University
    Los Angeles, California, February 2009
        The Genome is the New Soul
Center for Teaching Excellence, Loyola Marymount University
    Los Angeles, California, October 2008 (with John David N. Dionisio)
        Create. Share. Learn. Using Google Sites and MediaWiki
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?*

Center for Teaching Excellence, Loyola Marymount University
>Los Angeles, California, November 2007
>>*Panelist, Explorations of Faith and the Intellectual Life*

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)

American Society for Biochemistry and Molecular Biology Annual Meeting
>San Diego, California, April 20-24, 2012 (with Ben G. Fitzpatrick, Nicholas A. Rohacz*, Katrina Sherbina*)
>>*Regulatory Dynamics of the Transcriptional Network Controlling the Cold Shock Response in Saccharomyces cerevisiae*
>>**I received the ASBMB Thematic Best Poster Award in Systems Biology for this poster.**

Systems Biology: Global Regulation of Gene Expression
>Cold Spring Harbor Laboratory, Cold Spring Harbor, New York, March 20-24, 2012 (with Ben G. Fitzpatrick, Nicholas A. Rohacz*, Katrina Sherbina*)
>>*Regulatory Dynamics of the Transcriptional Network Controlling the Cold Shock Response in Saccharomyces cerevisiae*

Southern California Systems Biology Conference
>University of California, Irvine, January 29-30, 2011 (with Alondra J. Vega*, Ben G. Fitzpatrick)
>>*Mathematical Modeling of the Gene Regulatory Network Controlling the Cold Shock Response in Saccharomyces cerevisiae*

Yeast Genetics and Molecular Biology Meeting
>Vancouver, British Columbia, Canada, July-August 2010 (with Alondra J. Vega*, Ben G. Fitzpatrick)
>>*Mathematical Modeling of the Gene Regulatory Network Controlling the Cold Shock Response in Saccharomyces cerevisiae*

Intelligent Systems for Molecular Biology
>Boston, Massachusetts, July 2010 (with, Alondra J. Vega*, Stephanie D. Kuelbs, Ben G. Fitzpatrick)
>>*Mathematical Modeling of the Gene Regulatory Network Controlling the Cold Shock Response in Saccharomyces cerevisiae*

American Society for Cell Biology Annual Meeting
>San Diego, California, December 2009 (with John David N. Dionisio)
>>*Fostering Interdisciplinary Teamwork in an Undergraduate Biological Databases Course*

Intelligent Systems for Molecular Biology
>Stockholm, Sweden, June 2009 (with, Alexandrea Alphonso*, Derek Smith*, Chad Villaflores*, John David N. Dionisio)
>>*XMLPipeDB: A Reusable, Open Source Tool Chain for Building Relational Databases from XML Sources*

First RECOMB Satellite Conference on Bioinformatics Education
>San Diego, California, March 2009 (with John David N. Dionisio)
>>*Fostering Interdisciplinary Teamwork in an Undergraduate Biological Databases Course*

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

Center for Teaching Excellence Scholarship of Teaching and Learning Showcase Week
  Loyola Marymount University, Los Angeles, California, September 2009
    Fostering Interdisciplinary Teamwork in an Undergraduate Biological Databases Course
Center for Teaching Excellence Scholarship of Teaching and Learning Showcase Week
  Loyola Marymount University, Los Angeles, California, September 2008
    How Do You Teach "Research"? Incorporating DNA Microarray Technology into an Upper-
    division Biology Laboratory Course
Teaching with Technology Forum
  Vassar College, Poughkeepsie, New York, April 2004
    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)

Society for Mathematical Biology Annual Meeting
    Knoxville, Tennesee, July 2012
        Katrina Sherbina*, Nicholas A. Rohacz*, Kam D. Dahlquist, Ben G. Fitzpatrick, *Dynamical Systems Modeling of the Cold Shock Response in Saccharomyces cerevisiae* (poster)
        Nicholas A. Rohacz*, Katrina Sherbina*, Kam D. Dahlquist, Ben G. Fitzpatrick, *Continuous Time Markov Chain Models of Gene Regulation Regulatory Networks under the Environmental Stress of Cold Shock in Saccharomyces cerevisiae* (poster)
West Coast Biological Sciences Undergraduate Research Conference
    Loyola Marymount University, April 2012
        Nicholas Rohacz*, **Katrina Sherbina***, Kam D. Dahlquist, Ben G. Fitzpatrick, *Mathematical Analysis of Gene Regulation in Saccharomyces cerevisiae in Response to Cold Shock* (poster)
        Andrew Herman*, Kam D. Dahlquist
        Saccharomyces cerevisiae Responds to Cold Shock by Changing the Expression of Genes Involved in Nitrogen Metabolism (poster)
Fourth Annual Undergraduate Research Symposium
    Loyola Marymount University, March 2012
        Nicholas Rohacz*, **Katrina Sherbina***, Kam D. Dahlquist, Ben G. Fitzpatrick, *Mathematical Analysis of Gene Regulation in Saccharomyces cerevisiae in Response to Cold Shock* (poster)
        Andrew Herman*, Kam D. Dahlquist
        Saccharomyces cerevisiae Responds to Cold Shock by Changing the Expression of Genes Involved in Nitrogen Metabolism (poster)
Second Annual Southern California Systems Biology Conference
    University of California, Irvine, January 2012
        Nicholas Rohacz*, **Katrina Sherbina***, Kam D. Dahlquist, Ben G. Fitzpatrick, *Mathematical Analysis of Gene Regulation in Saccharomyces cerevisiae in Response to Cold Shock* (poster)
Southern California Conference for Undergraduate Research
    Mt. San Antonio College, Walnut, California, November 2011
        Cybele Arsan*, Kam D. Dahlquist
        The Hmo1 Transcription Factor Regulates the Expression of Ribosome Biogenesis Genes during Cold Shock and Recovery in Saccharomyces cerevisiae (talk)
        Richard Brous*, Kam D. Dahlquist, John David N. Dionisio
        Implementing Multiple Species Export in XMLPipeDB's GenMAPP Builder (talk)
        Andrew Herman*, Kam D. Dahlquist
        Saccharomyces cerevisiae Responds to Cold Shock by Changing the Expression of Genes Involved in Nitrogen Metabolism (poster)
        Nicholas Rohacz*, **Katrina Sherbina***, Kam D. Dahlquist, Ben G. Fitzpatrick, *Mathematical Analysis of Gene Regulation in Saccharomyces cerevisiae in Response to Cold Shock* (poster)
Beta Beta Beta Western Regional Conference
    Azusa Pacific University, Azusa Pacific, California, April 2011
        Cybele Arsan*, Andrew F. Herman*, Alondra J. Vega*, Lauren N. Kubeck*, Kam D. Dahlquist.

The Hmo1 transcription factor regulates the expression of ribosome biogenesis genes during cold shock and recovery in Saccharomyces cerevisiae. (poster). ***Cybele was given the second place John C. Johnson Award for Excellence in Student Research for posters in Microbiology.***
Andrew F. Herman*, Alondra J. Vega*, Lauren N. Kubeck*, Kenny R. Rodriguez*, Kam D. Dahlquist.
Saccharomyces cerevisiae Responds to Cold Shock by Changing the Expression of Genes Involved in Nitrogen Metabolism (poster). ***Andrew was given the second place John C. Johnson Award for Excellence in Student Research for posters in Physiology or Molecular Biology.***
Kelly C. Parks*, Kam D. Dahlquist, John David N. Dionisio.
Using XMLPipeDB to Create a GenMAPP-compatible Gene Database for the Analysis of DNA Microarray Data for Staphylococcus aureus MRSA252 (talk)

The Third Annual Undergraduate Research Symposium
    Loyola Marymount University, March 2011
        Cybele Arsan*, Andrew F. Herman*, Alondra J. Vega*, Lauren N. Kubeck*, Kam D. Dahlquist.
The Hmo1 transcription factor regulates the expression of ribosome biogenesis genes during cold shock and recovery in Saccharomyces cerevisiae. (poster).
Andrew F. Herman*, Alondra J. Vega*, Lauren N. Kubeck*, Kenny R. Rodriguez*, Kam D. Dahlquist.
Saccharomyces cerevisiae Responds to Cold Shock by Changing the Expression of Genes Involved in Nitrogen Metabolism (poster).
Kelly C. Parks*, Kam D. Dahlquist, John David N. Dionisio.
Using XMLPipeDB to Create a GenMAPP-compatible Gene Database for the Analysis of DNA Microarray Data for Staphylococcus aureus MRSA252 (talk)
Don B. Murphy*, Kam D. Dahlquist, John David N. Dionisio.
Implementing Support for Multiple Species in XMLPipeDB's GenMAPP Builder (poster)

Southern California Conference for Undergraduate Research
    Pepperdine University, Malibu, California, November 2010
        Andrew Herman*, Alondra J. Vega*, Lauren N. Kubeck*, Kenny R. Rodriguez*, Kam D. Dahlquist
Saccharomyces cerevisiae Responds to Cold Shock by Changing the Expression of Genes Involved in Nitrogen Metabolism (talk)
Kelly C. Parks*, Kam D. Dahlquist, John David N. Dionisio
Using XMLPipeDB to Create a GenMAPP-compatible Gene Database for the Analysis of DNA Microarray Data for Staphylococcus aureus MRSA252 (talk)
Don B. Murphy*, Kam D. Dahlquist, John David N. Dionisio
Implementing Support for Multiple Species in XMLPipeDB's GenMAPP Builder (poster)

Society for the Advancement of Chicanos and Native Americans in Science National Conference
    Anaheim, California, October 2010
        Alondra J. Vega*, Andrew F. Herman*, Lauren N. Kubeck*, Kam D. Dahlquist, and Ben G. Fitzpatrick
Mathematical Modeling of the Gene Regulatory Network Controlling the Cold Shock Response in Saccharomyces cerevisiae (poster)
Kevin Paiz-Ramirez*, Kam D. Dahlquist, John David N. Dionisio
Using XMLPipeDB to Create a GenMAPP-compatible Gene Database for the Analysis of DNA Microarray Data for Mycobacterium tuberculosis (poster)

Experimental Biology 2010
    Anaheim, California, April 2010
        Kristen Buckmelter*, Bianca Infanzon*, Elizabeth M. Liu*, Olivia S. Sakhon*, Kenny R. Rodriguez*, Wesley T. Citti*.
Saccharomyces cerevisiae responds to cold shock by inducing the transcription of genes required for zinc ion homeostasis (poster)
Bianca Infanzon*, Kristen Buckmelter*, Elizabeth M. Liu*, Olivia S. Sakhon*, Kenny R.

Rodriguez*, Wesley T. Citti*, Kam D. Dahlquist
Saccharomyces cerevisiae responds to cold shock by inducing the transcription of ribosome biogenesis genes (poster)
Lauren N. Kubeck*, **Andrew F. Herman***, Kenny R. Rodriguez*, Kevin C. Entzminger*, Stephanie D. Kuelbs*, Kristine B. Hubbard*, Kam D. Dahlquist
Phenotypic and Functional Genomic Analysis of Heat and Cold Stress in Transcription Factor Deletion Strains of Saccharomyces cerevisiae (poster)
Bernadette Pak*, Don Murphy*, Kam D. Dahlquist, John David N. Dionisio
Extending XMLPipeDB with GO Slim to Update the GenMAPP-compatible Gene Database for Budding Yeast, Saccharomyces cerevisiae, for the Analysis of DNA Microarray Data (poster)
Kelly C. Parks*, Andrew J. Hirning*, **Kelia McDonald***, John David N. Dionisio, Kam D. Dahlquist
Extending XMLPipeDB to Create a GenMAPP-compatible Gene Databases for the Analysis of DNA Microarray Data from human pathogens (poster)
Stephen Speicher*, Kam D. Dahlquist
Gene Ontology Term Enrichment Analysis of Gene Expression Changes Observed in the TRAMP Mouse Model of Prostate Cancer upon Treatment with Green Tea Catechins (poster)
Alondra J. Vega*, Stephanie D. Kuelbs*, Ben G. Fitzpatrick, Kam D. Dahlquist
Mathematical Modeling of the Gene Regulatory Network Controlling the Cold Shock Response in Saccharomyces cerevisiae (talk)
Alondra J. Vega was awarded an NSF/ASBMB Travel Fellowship so that she could make this platform presentation

The Second Annual Undergraduate Research Symposium
Loyola Marymount University, March 2010
Kristen Buckmelter*, **Bianca Infanzon***
Saccharomyces cerevisiae responds to cold shock by inducing the transcription of genes required for ribosome biogenesis and zinc ion homeostasis (talk)
Lauren N. Kubeck*, **Andrew F. Herman***, Kam D. Dahlquist
Phenotypic and Functional Genomic Analysis of Heat and Cold Stresses in Transcription Factor Deletion Strains of Saccharomyces cerevisiae" (poster)
Kelia McDonald*, Kam D. Dahlquist, John David N. Dionisio
Using XMLPipeDB to Create a GenMAPP-compatible Gene Database for Pseudomonas aeruginosa for the Analysis of DNA Microarray Data (poster)
Bernadette Pak*, **Don Murphy***, Kam D. Dahlquist, John David N. Dionisio
Extending XMLPipeDB with GO Slim to Update the GenMAPP-compatible Gene Database for Budding Yeast, Saccharomyces cerevisiae, for the Analysis of DNA Microarray Data (poster)
Kelly Parks*, Kam D. Dahlquist, John David N. Dionisio
Using XMLPipeDB to Create a GenMAPP-compatible Gene Database for the Analysis of DNA Microarray Data for Staphylococcus aureus MRSA252 (poster)
Alondra J. Vega*
Mathematical Modeling of the Gene Regulatory Network Controlling the Cold Shock Response in Saccharomyces cerevisiae (talk)
Stephen Speicher*
Gene Ontology Term Enrichment Analysis of Gene Expression Changes Observed in the TRAMP Mouse Model of Prostate Cancer upon Treatment with Green Tea Catechins (talk)
Stephen Speicher won a Sigma Xi award for this presentation

Society for the Advancement of Chicanos and Native Americans in Science National Conference
Dallas, TX, October 2009
Kenny R. Rodriguez*, Kevin C. Entzminger*, Stephanie D. Kuelbs*, Kam D. Dahlquist
Does Cin5p Regulate the Early Transcriptional Response to Cold Shock in Saccharomyces cerevisiae? (poster)

Society for Mathematical Biology Annual Meeting
    Vancouver, British Columbia, Canada, July 2009
        Kenny R. Rodriguez*, Kevin C. Entzminger*, Stephanie D. Kuelbs*, Kam D. Dahlquist
        Does Cin5p Regulate the Early Transcriptional Response to Cold Shock in Saccharomyces cerevisiae? (poster)

West Coast Biological Sciences Undergraduate Research Conference
    Point Loma Nazarene University, San Diego, California, April 2009
        Kara Taylor*, Wesley T. Citti*, Jeffrey D. McGowan*, Kam D. Dahlquist, Carl R. Urbinati
        Characterizing Soil Microbial Diversity in the Ballona Wetlands (talk)
        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? (talk)
        Alexandrea Alphonso*, **Chad Villaflores***, Derek Smith*, Kam D. Dahlquist, John David N. Dionisio
        Extending XMLPipeDB to Create GenMAPP-compatible Gene Databases for Plants and Microorganisms for the Analysis of DNA Microarray Data (talk)
        Kristine B. Hubbard*, Kenny R. Rodriguez, Stephanie D. Kuelbs, Kam D. Dahlquist
        Phenotypic and Functional Genomic Analysis of Heat and Cold Stresses in Transcription Factor Deletion Strains of Saccharomyces cerevisiae (poster)

The First Annual Undergraduate Research Symposium: Foundations for the Future
    Loyola Marymount University, March 2009
        Kara Taylor*, Wesley T. Citti*, Jeffrey D. McGowan*, Kam D. Dahlquist, Carl R. Urbinati
        Characterizing Soil Microbial Diversity in the Ballona Wetlands (talk)
        Kevin C. Entzminger*
        Does Cin5p Regulate the Early Transcriptional Response to Cold Shock in Saccharomyces cerevisiae? (talk)
        Kevin C. Entzminger won a Sigma Xi award for this presentation
        Alexandrea Alphonso*, **Chad Villaflores***, Derek Smith*, Kam D. Dahlquist, John David N. Dionisio
        Extending XMLPipeDB to Create GenMAPP-compatible Gene Databases for Plants and Microorganisms for the Analysis of DNA Microarray Data (poster)
        Kenny R. Rodriguez*, Stephanie D. Kuelbs*, Kam D. Dahlquist
        Phenotypic and Functional Genomic Analysis of Heat and Cold Stresses in Transcription Factor Deletion Strains of Saccharomyces cerevisiae” (poster)
        Stephanie D. Kuelbs*
        Mathematical Modeling of the Transcriptional Network Controlling the Cold Shock Response in Saccharomyces cerevisiae (talk)

First RECOMB Satellite Conference on Bioinformatics Education
    San Diego, California, March 2009
        Alexandrea Alphonso*, **Chad Villaflores***, Derek Smith*, Kam D. Dahlquist, John David N. Dionisio
        Extending XMLPipeDB to Create GenMAPP-compatible Gene Databases for Plants and Microorganisms for the Analysis of DNA Microarray Data (poster)

Sigma Xi Annual Meeting
    Washington, D.C., November 2008
        Kara Taylor*, Wesley T. Citti*, Jeffrey D. McGowan*, Kam D. Dahlquist, Carl R. Urbinati
        Identifying Soil Bacterial and Biochemical Pathways in the Ballona Wetlands (poster)

Society for the Advancement of Chicanos and Native Americans in Science National Conference
    Salt Lake City, Utah, October 2008
        Kenny R. Rodriguez*, Kevin C. Entzminger*, Stephanie D. Kuelbs*, Kam D. Dahlquist
        Phenotypic and Functional Genomic Analysis of Heat and Cold Stress in Transcription Factor Deletion Strains of Saccharomyces cerevisiae (poster)

Society for Mathematical Biology Annual Meeting
   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 (poster)
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? (poster)
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 (talk)
      Elizabeth M. Liu*, **Olivia S. Sakhon***, **Robert Hybki***, Kam D. Dahlquist
      The Global Transcriptional Response of Saccharomyces cerevisiae to Cold Shock and Recovery (talk)
      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? (poster)
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 (talk)
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 (poster)
      Elizabeth M. Liu*, **Olivia S. Sakhon***, **Robert Hybki***, Kam D. Dahlquist
      The Global Transcriptional Response of Saccharomyces cerevisiae to Cold Shock and Recovery (poster)
      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 (poster)
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 (poster)
      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 (poster)
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 (poster)
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 (poster)
Elizabeth M. Liu*, **Olivia S. Sakhon***, Kam D. Dahlquist
The Global Transcriptional Response of Saccharomyces cerevisiae to Cold Shock and Recovery
(poster)

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

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* (poster)
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 (poster)

Bellarmine 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 (poster)

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 (poster)
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* (poster)
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* (poster)
Nikoleta Tsvetanova*, Meredith Braymer*, Eric S. Eberhardt
Cold-Shock Response in Saccharomyces cerevisiae (poster)

PROFESSIONAL DEVELOPMENT WORKSHOPS ATTENDED

BioQUEST Curriculum Consortium Summer Workshop 2011   June 2011
      Undergraduate Biology in the 21st Century, Beloit College, Beloit, Wisconsin
Peer Evaluation of Teaching Workshop   May 2011
      Center for Teaching Excellence, Loyola Marymount University, Los Angeles, California
BioQUEST Curriculum Consortium Summer Workshop 2009   June 2009
      Green Architecture – Green Curriculum, Beloit College, Beloit, Wisconsin

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President's Institute   May 2009
     Loyola Marymount University, Los Angeles, California
BioQUEST Curriculum Consortium Summer Workshop 2007:   June 2007
     Exploratory Evolution Education, Beloit College, Beloit, Wisconsin
Women in bioScience Conference   May 2007
     Association for Women in Science, San Diego, California
Pedagogy Workshop for Second-year Faculty   2006–2007
     Loyola Marymount University, Los Angeles, California
Jesuit and Feminist Education: October 2006
Transformative Discourses for Teaching & Learning Conference
     Fairfield University, Fairfield, Connecticut
Collegium: A Colloquy on Faith and Intellectual Life   June 2006
     St. John's University, Collegeville, Minnesota
BioQUEST Curriculum Consortium Summer Workshop 2005:   June 2005
Investigating Interdisciplinary Interactions, Beloit College, Beloit, Wisconsin
     (attended with Erika Camacho who was then in the Department of Mathematics at LMU)
The Embodied Voice Faculty Workshop   Spring 2005
     Vassar College, Poughkeepsie, New York
Dartmouth Faculty Summer Institute   July 2004
Ethical, Legal, and Social Implications of the Human Genome Project
     Dartmouth University, Hanover, New Hampshire
BEDROCK Workshop–Bioinformatics in Biology Education: October 2003
Working with Sequence, Structure, and Function
     Cornell Theory Center, Ithaca, New York
Analysis of Regulatory Sequences Controlling Expression of Biological Networks;   June 2003
Extracting Biological Information from System-scale Protein Interactome Data
     Intelligent Systems for Molecular Biology Tutorials, Brisbane, Queensland, Australia
Strategies in Gender Equitable Teaching   2001–2002
     U.C. Berkeley Extension, Berkeley, California
Beginning Dreamweaver 4   April 2002
     Ciber Training Center, San Francisco, California
Advanced Microsoft Access 97   August 2001
     New Horizons Computer Learning Centers, Inc., San Francisco, California
Biostatistics 183: Introduction to Statistical Analysis   Fall 2001
     U.C. San Francisco, San Francisco, California
Art of Lecturing   Summer 2001
     Gladstone Institutes, San Francisco, California
Scientific Writing   Spring 2001
     Gladstone Institutes, San Francisco, California
Microarray Academy   Fall 2000
     Genomics Core, Gladstone Institutes, San Francisco, California