

Daniel A. Pollard

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 Entries in blue are for work performed at WWU during review period

Background: Education

Doctorate. University of California, Berkeley	2001-2007
Ph.D in Biophysics with a designated emphasis in Computational & Genomic Biology	
Bachelor's. Bowdoin College, Brunswick, Maine	1994-1998
B.A. in Mathematics with a minor in Biology, <i>Magna cum laude</i> honors	

Background: Professional Appointments

Assistant Professor, Biology Department, Western Washington University	2015-
Assistant Project Scientist, Division of Biological Sciences, UC San Diego	2014
Systems Biology Postdoctoral Fellow, San Diego Center for Systems Biology	2011-2014
National Science Foundation Postdoctoral Fellow, Division of Biological Sciences, UC San Diego	2010-2011
National Science Foundation Postdoctoral Fellow, Biology Department, New York University	2009-2010
Postdoctoral Researcher, Biology Department, New York University	2008-2009
Instructor, Molecular Cell Biology Department & Extension School, UC Berkeley	2007
Graduate Teaching Assistant, Molecular Cell Biology Department, UC Berkeley	2007
Graduate Research Assistant, Molecular Cell Biology Department, UC Berkeley	2001-2007
Laboratory Manager, Cell Biology Department, Harvard Medical School	2000-2001
Research Assistant, Cell Biology Department, Harvard Medical School	1998-2000

Background: Awards & Honors

Team Recognition Award, HHMI Inclusive Excellence Team, WWU	2017
DeLill Nasser Award, Genetics Society of America	2014

Teaching: Courses Taught at WWU (developed new course)**

BIOL321, Genetics	SP15, FA15, WI17, WI18, WI19
BIOL322, Genetics Lab	FA18
BIOL340, Biometrics	SP16, SP17, SP18, SP19
**BIOL497M/597M, Molecular Mechanisms of Trait Variation	WI16
**BIOL497R, Genomic Data Analysis	SP19

Teaching: Grants & Fundraising

VikingFunder Fundraising Campaign: Help WWU Students do Big Data Science!: \$7673 from 40 donors to purchase a computer server to support Biology Department classes	2018
Student Technology Fee Tech Initiatives Proposal with Matt Zinkgraf: Broadening student access to bioinformatics and big data analysis in the genomics era: \$24,954.21 to purchase a computer server to support Biology Department classes (Not Funded)	2018

Teaching: Mentoring Research Students & Staff at WWU

Research mentor to 3 graduate students (Anastacia Wienecke, Tanner Thuet-Davenport, Benjamin Haagen)	2018-
RSP Fund for the Enhancement of Graduate Research and Scholarship proposals funded for 2 graduate research students	2018-
Small Meeting Talks presented by 4 undergraduate and 2 graduate research students	2018-
Jarvis Summer Research Fellowship awarded to research students Brian Miller (jointly advised with Suzanne Lee) and Gaea Turman	2018-
Summer research mentor to 1 Whitman College undergraduate student (Yuli Buckley)	2017
Scholar's Week posters presented by 5 undergraduate research students and 1 grad student	2017-
Conference Posters presented by 3 undergraduate research students and 1 staff	2016-
Career advancement of research students and staff: 1 PhD Program, 2 Masters Program, 3 Research Assistants, 1 Nurse's Assistant	2016-
Research mentor to 12 WWU undergraduate students (Austin Abendroth, Emma Ciechanowski, Halley Steiner, Shelby Duffy, Brian Miller (jointly with Suzanne Lee), Tiara Johnson, Chayse Jones, Tanner Thuet-Davenport, Anastacia Wienecke, Gaea Turman, Garrett Strand, Sam Herr)	2015-
RSP Research & Creative Opportunities for Undergraduates proposals funded for 5 undergraduate research students	2015-
Thesis committee member for 3 graduate students (Eric Hervol, Christa Kohnert, Nathaniel Guilford)	2015-
Research mentor to a research assistant with a WWU BS in Biology	2015-2017

Teaching: Professional Development

Participant: Equity Podcast Club, WWU	2019-
Participant: Teaching to Increase Diversity and Equity in STEM, AACU	2019
Organizer: Race, Sex, and Gender in the Biology Curriculum PLC, WWU	2018-
Participant: Communicating Science Workshop, AAAS	2017
Participant: Scientific Thinking w/ Models & Data Workshop, Society for Study of Evolution	2017
Participant: STEM Equity & Inclusion Workshops 1-4, WWU	2017
Participant: Change at the Core Workshops: inclusive student-centered pedagogy, WWU	2016-
Participant: Using Cancer Resources to Actively Engage Students, HHMI	2016
Participant: GCAT-SEEK Workshop: bringing genomics into the classroom, NSF	2016
Participant: STEM Pedagogy Discussion Group, WWU	2015-
Participant: Day of Active Learning, University of WA Biology Education Research Group	2015
Participant: Faculty Education Workshop, American Society of Human Genetics	2014
Student: The College Classroom, CIRT Center for Teaching	2012

Scholarship: Grants

NSF-REU Supplement to MCB-1518314 (MCB-1745494): PI: \$11,060 for three students, Yuli Buckley (Whitman College), Shelby Duffy (WWU), and Halley Steiner (WWU)	2017
WWU RSP Summer Research Grant: PI: \$6000	2017
NSF- MRI: Acquisition of a Quantitative Imaging System for Biomolecules at Western Washington University: co-PI with Clint Spiegel, Lina Dahlberg, and Suzanne Lee: Not funded	2017
NSF-REU Supplement to MCB-1518314 (MCB-1649627): PI: \$5000 for one student, Halley Steiner (WWU)	2016
LI-COR Supporting Undergraduate Research Grant (SURG) co-applicant with Lina Dahlberg: \$18,400 in credit for molecular imaging equipment	2016

NSF Grant (MCB-1518314): Collaborative Research: The Causes of Natural Variation In Protein Expression: co-equal-PI with Scott Rifkin: \$570,000 total, \$231,150 to WWU, 3 years (+2 year no cost extension) 2015-2020
 WWU RSP Summer Research Grant: PI: \$6000 2015
 NSF Postdoctoral Research Fellowships in Biology (DBI-0906031): \$123,000 2009

Scholarship: Peer-Reviewed Publications

- Pollard, D. A.**, Pollard, T. D., & Pollard, K. S. (2019). Empowering statistical methods for cellular and molecular biologists. **Molecular Biology of the Cell**, 30(12), 1359–1368.
- Pollard DA**, Rockman MV (2013). Resistance to Germline RNAi in a *Caenorhabditis elegans* Wild Isolate Exhibits Complexity and Non-Additivity. **G3**, g3.113.005785.
- Li XY, MacArthur S, Bourgon R, Nix D, **Pollard DA**, Iyer VN, Hechmer A, Simirenko L, Stapleton M, Luengo Hendriks CL, Chu HC, Ogawa N, Inwood W, Sementchenko V, Beaton A, Weiszmann R, Celniker SE, Knowles DW, Gingeras T, Speed TP, Eisen MB, Biggin MD (2008). Transcription factors bind thousands of active and inactive regions in the *Drosophila* blastoderm. **PLoS Biol** 6(2):e27.
- Clark AG*, Eisen MB*, Smith DR*, Bergman CM*, Oliver B*, Markow TA*, Kaufman TC*, Kellis M*, Gelbart W*, Iyer VN*, **Pollard DA***, Sackton TB*, Larracuente AM*, Singh ND*, Drosophila 12 Genomes Consortium (2007). Evolution of genes and genomes on the *Drosophila* phylogeny. **Nature** 450(7167):203-18.* Denotes corresponding authors
- Pollard DA**, Iyer VN, Moses AM, Eisen MB (2006). Widespread Discordance of Gene Trees with Species Tree in *Drosophila*: Evidence for Incomplete Lineage Sorting. **PLoS Genetics** 2:10.
- Moses AM, **Pollard DA**, Nix DA, Iyer VN, Li X, Biggin MD, Eisen MB (2006). Large-scale turnover of functional transcription factor binding sites in *Drosophila*. **PLoS Comp Biol** 2:10.
- The Honeybee Genome Sequencing Consortium (2006). Insights into social insects from the genome of the honeybee *Apis mellifera*. **Nature** 443, 931-949.
- Pollard DA**, Moses AM, Iyer VN, Eisen MB (2006). Detecting the Limits of Regulatory Element Conservation and Divergence Estimation Using Pairwise and Multiple Alignments. **BMC Bioinformatics** 7:376.
- Moses AM, Chiang DY, **Pollard DA**, Iyer VN, Eisen MB (2004). MONKEY: identifying conserved transcription-factor binding sites in multiple alignments using a binding site-specific evolutionary model. **Genome Biology** 5(12): R98.
- Pollard DA**, Bergman CM, Stoye J, Celniker SE, Eisen MB (2004). Benchmarking tools for the alignment of functional noncoding DNA. **BMC Bioinformatics** 5(1): 6.
- Fruman DA, Mauvais-Jarvis F, **Pollard DA**, Yballe CM, Brazil D, Bronson RT, Kahn CR, Cantley LC (2000). Hypoglycaemia, liver necrosis and perinatal death in mice lacking all isoforms of phosphoinositide 3-kinase p85 alpha. **Nature Genetics** 26(3): p. 379-82.

Scholarship: Preprints & Books (**undergraduate coauthors)

- Pollard DA**, Asamoto CK, **Rahnamoun H, **Abendroth AS, Lee SR, Rifkin SA (2016). Natural Genetic Variation Modifies Gene Expression Dynamics at the Protein Level During Pheromone Response in *Saccharomyces cerevisiae*. bioRxiv, 090480.
- Pollard DA** (2012). "Design and Construction of Recombinant Inbred Lines" in **Quantitative Trait Loci (QTL) : Methods and Protocols**. Rifkin SA (Ed). Springer 1:871.

Scholarship: Manuscripts In Review/Preparation (**undergraduate coauthor)

- Kuo S, Egertson J, Merrihew G, MacCoss M, **Pollard DA**, Rifkin SA. A simple mass-action model predicts protein timecourses from mRNA trajectories during a dynamic response in two strains of *S. cerevisiae*. (In review at Nature Genetics)

Borek B, Lardelli R, Grimsey N, Aalto A, Plank T, Miller SW, Grainger S, Quayle C, El-Danaf R, Song HW, Vicente-Crespo M, Kadandale P, Khanna N, Clement S, Otto-Hitt S, Dorsey KL, Seidel S, Ewell L, Kirchsteiger K, Knowlton W, Nazarko T, Joshi S, Merkhofer E, Lee SR, **Pollard DA**, Stephan A, Stockwell S, Wienhausen G, Lo S. The Value of Postdoctoral Teaching about Diversity and Inclusion. (In preparation for submission to *Science's* Education Forum)

Pollard DA, Asamoto CK, **Rahnamoun H, **Strand G, Thuet-Davenport T, **Abendroth AS, **Jones C, **Steiner HR, Lee SR, Rifkin SA. Natural Genetic Variation Modifies Gene Expression at the Protein Level Under Steady-State and Non-Steady-State Conditions in *Saccharomyces cerevisiae*. (In preparation for submission to Genetics)

Scholarship: Scientific Presentations (**research student/staff presentation)

Invited oral presentations:

Vancouver Yeast Meeting, UBC	2019
**Vancouver Yeast Meeting, UBC	2019
**University of Washington, Genome Sciences Department	2018
Washington State University, School of Biological Sciences	2017
Simon Fraser University, Physics Department	2016
Oregon State University, Integrative Biology Department	2016
University of Washington, Genome Sciences Department	2016
City University of New York, Queens, Biology Department	2010
NYU Abu Dhabi, Biology Department	2010
Quantitative Genetics & Genomics Gordon Research Conference	2009
UC Davis, Department of Evolution & Ecology	2007
Bay Area Biosystematists, Berkeley, CA	2007
Society for Molecular Biology & Evolution	2006

Selected oral presentations:

Society for the Study of Evolution	2017
Evolution in Washington, Idaho, British Columbia, and Oregon	2016
Yeast Genetics, Seattle, WA	2014
International <i>C. elegans</i> Meeting	2009, 2011
Evolutionary Biology of <i>Caenorhabditis</i> and Other Nematodes, Sanger Institute, UK	2010
NYU, Biology Department	2009
Cis Sequence Regulation & Its Evolution, RIKEN Center for Developmental Bio, Kobe, Japan	2008
Annual Drosophila Research Conference	2007
Society for Molecular Biology & Evolution	2004

Poster presentations:

**Evolution in Washington, Idaho, British Columbia, and Oregon	2018
**Society for the Study of Evolution	2017
American Society for Cell Biology	2016
**Evolution in Washington, Idaho, British Columbia, and Oregon	2016
Mechanisms of Molecular Evolution Gordon Research Conference	2015
Yeast Genetics, Seattle, WA	2014
Society for Molecular Biology & Evolution	2013, 2003
Systems to Synthesis, Salk Institute, San Diego, CA	2012
RECOMB Regulatory Genomics & Systems Biology	2009
Quantitative Genetics & Genomics Gordon Research Conference	2007
Molecular Evolution Gordon Research Conference	2006, 2008
Annual Drosophila Research Conference	2005-2006

Scholarship: Professional Development

Participant: NSF Career Grant Workshop, WWU RSP	2017
Participant: STAR: Performance Evaluations, Coaching & Crucial Conversations, WWU HR	2016
Participant: Collaborating on Grants Workshop, WWU RSP	2016
Participant: Commercialization of Research Workshop, WWU RSP	2016
Participant: San Diego Lab Management Course, UCSD	2012

Service: WWU Biology Department

Race, Sex, & Gender in the Biology Curriculum PLC (Chair)	2018-
Graduate Program Committee	2018-
Phase II Advising Workshop Panelist	2017-
Cell Biologist/Physiologist Search Committee	2017-2018
Undergraduate Curriculum Committee	2016-2017
Seminars and Group Gatherings Committee	2015-
BIOL 205 Curricular Working Group	2015-2017
Scholarship Committee	2015-2017
Information Technology Committee	2015-2016
Academic Advising (Cell and Molecular Biology, Ecology Evolution and Organismal Biology, Biology Mathematics, and General Biology)	2015-

Service: WWU College and University

AEES Select Science Student Mentor	2017-
AEES Policy Review & Revisions Committee	2017-
HHMI Inclusive Excellence Grant Development & Implementation Committee	2015-

Service: Grants

Fraser Lecture Series Proposal with Lia Cook, Lina Dahlberg, Regina Barber DeGraaff, Natasha Hessami, Robin Kodner, Suzanne Lee, Ben Miner, and Ryssa Parks: Intersections - Inclusion, Science, and Society: \$30,000 (In Review)	2018-
HHMI Inclusive Excellence Grant with Spencer Anthony-Cahill, Regina Barber DeGraaff, Emily Borda, Jessica Cohen, Lina Dahlberg, Ed Geary, Dan Hanley, Bernard Housen, Robin Kodner, David Leaf, Suzanne Lee Joann Otto, Jackie Rose, José Serrano-Moreno, and Shannon Warren: \$1,000,000	2017-2022

Service: Community

Panelist: Post-viewing discussion of Human Nature, Pickford Theater Doctober Film Series	2019
Co-Host with Suzanne Lee: Sehome High School AP Biology Class visit to research labs	2018
Host: Mountlake Terrace High School visit to research labs	2017
Leader: Whatcom Wild Yeast Project, engages middle school students in the process of scientific discovery through collecting and identifying wild yeast species in Whatcom County	2017

Service: Professional

Conference Poster Judge: Evolution in Washington, Idaho, British Columbia, and Oregon	2018
Conference Session Chair: Evolution in Washington, Idaho, British Columbia, and Oregon	2016

Memberships: American Society for Cell Biology, Genetics Society of America, 2015-
Society for Molecular Biology & Evolution, Society for the Study of Evolution
Journal and grant reviewer: BMC Bioinformatics, BMC Evolution, BMC Genomics, 2007-
Evolution, Molecular Biology & Evolution, Molecular Phylogenetics & Evolution, PLoS
Computational Biology, Trends in Genetics, Wellcome Trust