

DANEL AVERY POLLARD

Curriculum Vitae

NYU Center for Genomics & Systems Biology
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EDUCATION

- 2001-2007 **PhD in Biophysics with a Designated Emphasis in Computational and Genomic Biology**
University of California, Berkeley, CA
- 1994-1998 **BA in Mathematics with Minor in Biology, Magna Cum Laude**
Bowdoin College, ME
- 1996-1997 **Bowdoin Study Away Program**
Sea Education Association, MA
Marine biology, oceanography & nautical science experiential learning

RESEARCH EXPERIENCE

- 2008-present **Postdoc Project: *Laboratory of Matthew Rockman***
Center for Genomics & Systems Biology, New York University, NY
Uncovering the genetic basis for variation in gene expression and RNAi sensitivity in the nematode worm, *C. elegans*, using quantitative genetics, genomics, network modeling and targeted molecular analyses.
- 2001-2007 **Graduate Thesis Project: *Laboratory of Michael Eisen***
Department of Molecular & Cell Biology, University of California, Berkeley, CA
Developed comparative genomics infrastructure and investigated evolutionary constraints and dynamics of *cis*-regulatory sequences in *Drosophila*. Projects included generating annotations and synteny maps for sequenced insects, testing impact of alignment inaccuracies on inferences of regulatory element conservation and divergence, investigating incongruence in the *Drosophila* phylogeny, estimating selective constraints on regulatory sequences and modeling and measuring rates of transcription factor binding site turnover.
- 1998-2001 **Research Assistant Project: *Laboratory of Lewis Cantley***
Department of Cell Biology, Harvard Medical School, MA
Examined activation, regulation and downstream targets of phosphoinositide kinases using biochemical, cell biological, physiological and bioinformatic techniques in transgenic mice and human cell lines.

TEACHING EXPERIENCE

- 2007 **Instructor: *Introduction to Genetics***
Extension School, University of California, Berkeley, CA
Designed and taught 45 hour undergraduate course
- 2007 **Instructor: *Introduction to Programming for Bioinformatics***
Department of Molecular & Cell Biology, University of California, Berkeley, CA
Designed and taught an 80 hour graduate course

OTHER PROFESSIONAL EXPERIENCE

- 2009-present **Group Coordinator: *Biology Department Journal Discussion Group***
New York University, New York, NY
Initiated and organized weekly discussion on current topics in biology
- 2007 **Grant Referee: *The Wellcome Trust***
- 2006-present **Journal Referee: *Bioinformatics, BMC Bioinformatics, BMC Evolutionary Biology, Molecular Phylogenetics & Evolution, PLoS Computational Biology, Trend in Genetics***
- 1999-present **Label Manager: *Pigeon Records***
<http://www.pigeonrecords.com>
Founder and coordinator of independent record label with thirteen artists
- 1997-present **Musician: *Rock Band 'Spouse'***
<http://www.spousemusic.com>
Released four full-length albums and toured the US extensively
- 2002-2004 **Seminar Coordinator: *Computational & Genomic Biology***
University of California, Berkeley, CA
Initiated, procured funding for and coordinated a new weekly seminar series on the topic of Computational and Genomic Biology
- 2000-2001 **Lab Manager: *Laboratory of Lewis Cantley***
Department of Cell Biology, Harvard Medical School, MA

FELLOWSHIPS & AWARDS

- 2009-present **National Science Foundation Postdoc Research Fellowship in Biology**
New York University, New York, NY
- 2003-2005 **Genomics Graduate Research Fellowship**
University of California, Berkeley, CA
- 2001-2003 **Biophysical Chemistry Graduate Research Fellowship**
University of California, Berkeley, CA
- 1998 **Cum Laude Society: *Magna Cum Laude***
Bowdoin College, ME

PUBLICATIONS

*Halligan, D. L., ***Pollard, D. A.**, Bergman, C. M., Keightley, P. D., Eisen, M. B., *Selective constraints on Drosophila regulatory sequences*. In Preparation. * Co-first authors

Lia, X., MacArthur, S., Bourgon, R., Nix, D., **Pollard, D.**, Iyer, V., Hechmer, A., Simirenko, L., Stapleton, M., Hendriks, C., Chu, H., Ogawa, N., Inwood, W., Sementchenko, V., Beaton, A., Weiszmann, R., Celniker, S., Knowles, D., Gingeras, T., Speed, T., Eisen, M., Biggin, M. *Transcription Factors Bind Thousands of Active and Inactive Elements in the Drosophila Blastoderm*. PLoS Biology, 2008 6(2):e27..

Pollard, D. A., *Evolution of cis-regulatory sequences in Drosophila: a systematic approach*. University of California Library, 2007.

Drosophila 12 Genomes Consortium, *Evolution of genes and genomes on the Drosophila phylogeny*. Nature, 2007. 450(7167):203-18.

Pollard, D. A., Iyer, V. N., Moses, A. M., Eisen, M. B., *Widespread Discordance of Gene Trees with Species Tree in Drosophila: Evidence for Incomplete Lineage Sorting*. PLoS Genetics, 2006. 2:10.

Moses, A. M., **Pollard, D. A.**, Nix, D. A., Iyer, V. N., Li, X., Biggin, M. D., Eisen, M. B., *Large-scale turnover of functional transcription factor binding sites in Drosophila*. PLoS Computational Biology, 2006. 2:10.

The Honeybee Genome Sequencing Consortium, *Insights into social insects from the genome of the honeybee Apis mellifera*. Nature, 2006. 443, 931-949.

Pollard, D. A., Moses, A. M., Iyer, V. N., Eisen, M. B., *Detecting the Limits of Regulatory Element Conservation and Divergence Estimation Using Pairwise and Multiple Alignments*. BMC Bioinformatics, 2006. 7:376.

Moses, A. M., Chiang, D. Y., **Pollard, D. A.**, Iyer, V. N., Eisen, M. B., *MONKEY: identifying conserved transcription-factor binding sites in multiple alignments using a binding site-specific evolutionary model*. Genome Biology, 2004. 5(12): R98.

Pollard, D. A., Bergman, C. M., Stoye, J., Celniker, S. E., Eisen, M. B., *Benchmarking tools for the alignment of functional noncoding DNA*. BMC Bioinformatics, 2004. 5(1): 6.

Fruman, D.A., Mauvais-Jarvis, F., **Pollard, D. A.**, Yballe, C. M., Brazil, D., Bronson, R. T., Kahn, C. R., Cantley, L. C., *Hypoglycaemia, liver necrosis and perinatal death in mice lacking all isoforms of phosphoinositide 3-kinase p85 alpha*. Nature Genetics, 2000. 26(3): p. 379-82.