

## Peter Andolfatto: Curriculum Vitae

### A. CURRENT ADDRESS

106A Guyot Hall  
Princeton University  
Princeton, NJ, 08544.  
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Website: <http://genomics.princeton.edu/AndolfattoLab>

### B. ACADEMIC HISTORY

#### Research Area

I use computational and experimental approaches to learn about genome evolution and elucidate the genetic mechanisms underlying adaptations. Historically my lab has focused on *Drosophila* as a model system, but more recent work explores evolutionary/ecological genetic questions using a broad range of non-model organisms (e.g. Lepidoptera, Poeciliid fish, Milkweed-feeding insects, fireflies). Ongoing research in my lab includes: (1) Estimating the mode and strength of selection acting on coding and non-coding DNA; (2) Using molecular genetic approaches to probe the relationship between genomic divergence and phenotypic divergence in gene expression; (3) Estimating fine-scale recombination rate variation in the *Drosophila* genome and its effects on patterns of genome variability and evolution; (4) Population genomic inference of demographic history and the nature of species boundaries in hybridizing *Drosophila*, Lepidoptera and Poeciliid fish species; and (5) Understanding patterns of convergent molecular evolution in relation to protein structure-function evolution.

#### Degrees

B. Sc. (Honors Biochemistry)	1992	Simon Fraser University
Ph. D. (Genetics)	1999	University of Chicago

#### Employment

**Associate Professor** (Jul 2014 – present)

Ecology and Evolutionary Biology and the Lewis-Sigler Institute for Integrative Genomics, Princeton University, Princeton, NJ.

**Associate Faculty** in Dept of Molecular Biology, Princeton University, Princeton (May 2010 - present).

**Assistant Professor** (Jun 2008 – Jun 2014)

Ecology and Evolutionary Biology and the Lewis-Sigler Institute for Integrative Genomics, Princeton University, Princeton, NJ.

**Employment ... cont.**

**Assistant Professor** (Sept 2004 – May 2008)

Department of Biological Sciences, Univ. of California, San Diego, CA.

**Assistant Professor** (Jul 2003 – Aug 2004)

Canada Research Chair in Evolutionary Genetics, Dept. of Zoology, University of Toronto.

**Research Fellow** (Oct 2001 – Jul 2003)

Scottish Executive LLD - Royal Society of Edinburgh, Institute of Cell, Animal & Population Biology University of Edinburgh, Edinburgh, UK.

Mentor: Brian Charlesworth, Royal Society Research Professor

**Postdoctoral Fellow** (Oct 1999 – Sept 2001)

European Molecular Biology Organisation, Institute of Cell, Animal & Population Biology, University of Edinburgh, Edinburgh, UK.

Advisor: Brian Charlesworth, Royal Society Research Professor

Title: *Genealogical approaches to gene flow across a butterfly (Papilio) hybrid zone.*

**Research Assistant** (1993 –1994)

Dept. of Biological Sciences, Simon Fraser University.

**Research Assistant** (1992 – 1993)

Institute of Molecular Biology and Biochemistry, Simon Fraser University.

**Honors, Awards and Fellowships**

Faculty Fellow of Rockefeller College, Princeton University, 2014 – present.

Student Invited Speaker, Ecology and Evolutionary Biology, Texas A&M University, 2014.

Student Invited Speaker, University of Oregon, NSF IGERT in Evolution, Development and Genomics, 2012.

Hellman Faculty Research Fellowship, UCSD (2006)

Alfred P. Sloan Research Fellowship (Molecular & Computational Biology, 2003-2005)

Canada Research Chair in Evolutionary Genetics (2003)

Ontario Research Excellence Award (2003)

Royal Society of London University Research Fellowship (2003, declined)

Scottish Executive ELLD – Royal Society of Edinburgh Research Fellowship (2001-2003)

Marie Curie Postdoctoral Fellowship (2001, declined)

European Molecular Biology Organisation, Long-term Postdoctoral Fellowship (1999-2001)

NSERC Postgraduate Fellowship, University of Chicago (1996-1998)

Dean's Merit Award, Division of Biological Sciences, University of Chicago (1994)

**Professional Affiliations & Activities**

Member of the Society for Molecular Biology and Evolution (since 1996)

Member of the Society for the Study of Evolution (since 1999)

Member of the Genetics Society of America (since 1996)

### Professional Affiliations & Activities ... cont.

Referee for: Current Biology, Evolution, Genetics, Genetical Research, Genome Biology, Genome Research, Journal of Molecular Evolution, Molecular Biology & Evolution, Genome Biology and Evolution, Nature, Nature Genetics, PLoS Biology, PLoS Genetics, PNAS, Trends in Ecology & Evolution, Trends in Genetics (approx. 15/yr).

Invited Review Panel Member, Austrian Science Fund evaluation of DK-Plus doctoral student training program in Population Genetics proposal, Vienna, October 2008.

Editorial:

Board of Reviewing Editors, Science (AAAS), Jan 2010 – Dec 2014.

Associate Editor, Evolution (International Journal of Organic Evolution), Jan 2013 - present.

Ad hoc Guest Editor, PLoS Genetics, occasionally since November 2012.

### Research Support

#### Current Research Support

National Institute of Health (PI : Peter Andolfatto) 07/01/15-06/30/19  
R01-GM114093 "Dissecting the molecular basis and assembly of a complex morphological trait". \$1,752,682

Goals: Understand the evolution of pigmentation evolution in two closely related *Drosophila* species using a combination of functional genomics, genome engineering and comparative/population genomics approaches. Role: PI. (co-PI Mark Rebeiz, U Pittsburgh)

National Science Foundation (PI : Peter Andolfatto) 05/01/14-04/30/16  
Doctoral Dissertation Improvement Grant: *The origin and evolution of a sexually selected trait*. \$20,937. Role: PI (co-PI Molly Schumer).

National Science Foundation (PI Adriana Briscoe) 05/15/13-04/30/16  
IOS-1257800 "Collaborative Research: Physiological genomics of color vision in butterflies" \$88,240. Role: co-PI

Goals: Understand the evolution of color vision in a large *Heliconius* butterfly clade using RNA-seq based gene discovery/expression and physiological approaches.

#### Pending Research Applications

National Institute of Health (PI : Peter Andolfatto)  
R01GM115523-01 "Parallel evolution at Na,K-ATPase: a model system for understanding constraints on the evolution of novel protein functions."  
Goals: Various insect orders have evolved the ability to consume and sequester cardenolides from plants and use them for defense, by means of mutations in Na<sup>+</sup>,K<sup>+</sup>-ATPase. We propose to use sequence comparison, structural modelling and statistical inference to identify candidate adaptive mutations and then to test those candidates in engineered *Drosophila*. **In revision for resubmission; The previous submission was ranked at 24<sup>th</sup> Percentile.**

**Pending Research Applications ... cont.**

National Institute of Health (PI : Peter Andolfatto)  
 R01GM112758 "The adaptive landscape of a rapidly evolving phenotype"  
 Goals: The goals of this project are to identify the genes responsible for the diversification and rapid change of the posterior lobe in *Drosophila*, to identify the regulatory regions and sequence variants driving the change in morphology, and to examine the effects of the series of sequence changes identified in these regulatory regions. Role: PI. (co-PI Mark Rebeiz, U Pittsburgh). **In revision for resubmission; The previous submission was ranked at 20<sup>th</sup> Percentile.**

**Completed Research Support**

National Institute of Health 09/01/09-07/31/14  
 R01-GM083228 "Adaptive evolution of non-coding DNA and gene expression divergence in *Drosophila*" \$811,200. Role: PI.  
 Goals: Using population genomic and molecular genetic approaches to probe the relationship between genomic divergence and gene expression divergence between *Drosophila* species.

National Institute of Health 09/01/04-08/31/14  
 P50 GM071508 "Center for Quantitative Biology". Role: co-PI  
 Goals: The overarching goal of the proposed Center for Quantitative Biology remains to instantiate at Princeton a research and teaching environment, presented by advances in computation and genomics, to practice a usefully quantitative biological science, sometimes referred to as "systems biology". Note: This is a multi-investigator grant (Lead PI: D. Botstein and 28 co-PIs).

National Science Foundation 2007-2010  
 DEB-0946398 "Collaborative Research: Genetic and divergence mapping of barriers to gene flow across a butterfly hybrid zone" \$240,000. Role: PI

National Science Foundation 2006-2008  
 Doctoral Dissertation Improvement Grant: "The genetic architecture of divergence between two ecologically distinct Swallowtail butterfly species" \$11,000. Role: PI  
 Awarded to Ph.D. candidate Andrea Putnam.

Hellman Faculty Fellowship, University of California San Diego 2006-2007  
 "Quantifying adaptive evolution in non-coding DNA sequences and its effect on gene expression divergence between species" \$14,550. Role: PI

National Science and Engineering Research Council of Canada 2004  
 Equipment grant. "Molecular core facility real-time PCR machine" \$40,000.  
 Role: co-PI (Romans (PI), Andolfatto and 10 others)

University of Toronto, Connaught New Investigator Grant 2003  
 "Population genetics and molecular evolution of Lepidoptera and *Drosophila*" \$10,000. Role: PI

**Completed Research Support ... cont.**

- University of Toronto Connaught Matching Grant 2003  
 “Constructing genetics maps of *Drosophila yakuba* and other non-model organisms for comparative population genomics” \$20,000. Role: PI
- National Science and Engineering Research Council of Canada 2003-2004  
 Discovery Grant: “Factors affecting genome variability and evolution in *Drosophila melanogaster* and its close relatives” \$160,000. Role: PI
- Canada Research Chair 2003-2004  
 National Science and Engineering Research Council of Canada  
 “Comparative population genomics methodologies for understanding mechanisms of genome evolution and the functional significance of genome variation”, \$117,500.  
 Role: PI
- Canada Foundation of Innovation Role: PI 2003-2004  
 National Science and Engineering Research Council of Canada  
 “Comparative population genomics methodologies for understanding mechanisms of genome evolution and the functional significance of genome variation” \$240,000.
- Ontario Innovation Trust 2003-2004  
 National Science and Engineering Research Council of Canada  
 “Comparative population genomics methodologies for understanding mechanisms of genome evolution and the functional significance of genome variation” \$240,000 for equipment. Role: PI
- Alfred P. Sloan Foundation 2003-2005  
 Alfred P. Sloan Research Fellowship in Molecular & Computational Biology  
 “Quantifying the roles of demography and selection in *Drosophila melanogaster* and its close relatives using comparative population genomics” \$40,000. Role: PI
- British Biotechnology and Biological Sciences Research Council (UK) 2002-2005  
 Research Grant 15/G17575  
 “Demographic effects on neutral and selected variability in *Drosophila melanogaster*, *D. simulans* and *D. yakuba*” \$300,000 (converted from GBP). Role: PI

**C. SCHOLARLY AND PROFESSIONAL WORK****Refereed Publications**

1. Haunerland NH, **Andolfatto P**, Chisholm JM, Wang Z, Chen X. 1992. Fatty acid binding protein in locust flight muscle: Developmental changes of expression, concentration and intracellular distribution. *European Journal of Biochemistry* 210: 1045–51.
2. Haunerland NH, Chen X, **Andolfatto P**, Chisholm JM, Wang Z. 1993. Developmental changes in muscle FABP expression, concentration and intracellular distribution in locust flight muscle. *Molecular & Cellular Biochemistry* 123: 153–8.

**Refereed Publications ... cont.**

3. **Andolfatto P**, Bornnhusen A, Bohnert HJ, Thomas JC. 1994. Transformed hairy roots of *Mesembryanthemum crystallinum*: gene expression patterns upon salt stress. *Physiologia Plantarum* 90: 708–14.
4. **Andolfatto P**, Nordborg M. 1998. The effect of gene conversion on intralocus associations. *Genetics* 148: 1397–9.
5. **Andolfatto P**, Wall JD, Kreitman M. 1999. Unusual haplotype structure at the proximal breakpoint of *In(2L)t* in a natural population of *Drosophila melanogaster*. *Genetics* 153: 1297–1311.
6. Kliman,R, **Andolfatto P**, Coyne Depaulis JF, Kreitman M, Berry AJ, McCarter J, Wakeley J, Hey J. 2000. The population genetics of the origin and divergence of the *Drosophila simulans* complex species. *Genetics* 156: 1013–31.
7. **Andolfatto P**, Przeworski M. 2000. A genome-wide departure from the standard neutral model in natural populations of *Drosophila*. *Genetics* 156: 257–68.
8. **Andolfatto P**, Kreitman M. 2000. Molecular variation at the *In(2L)t* proximal breakpoint site in natural populations of *Drosophila melanogaster* and *D. simulans*. *Genetics* 154: 1681–91.
9. Wu Q, **Andolfatto P**, Haunerland NH. 2001. Cloning and sequence of the gene encoding the muscle fatty acid binding protein from the desert locust, *Schistocerca gregaria*. *Insect Biochemistry & Molecular Biology* 31: 553–62.
10. **Andolfatto P**, Przeworski M. 2001. Regions of lower crossing over harbour more rare variants in African *Drosophila melanogaster*. *Genetics* 158: 657–65.
11. Przeworski M, Wall JD, **Andolfatto P**. 2001. Recombination and the frequency spectrum in *Drosophila*. *Molecular Biology & Evolution* 18: 291–8
12. **Andolfatto P**, Depaulis F, Navarro A. 2001. Inversion polymorphisms and nucleotide variation in *Drosophila*. *Genetical Research* 77: 1–8.
13. **Andolfatto P**. 2001. Contrasting patterns of nucleotide variation at X-linked and autosomal loci in *Drosophila melanogaster* and *D. simulans*. *Molecular Biology & Evolution* 18: 275–90.
14. **Andolfatto P**. 2001. Adaptive hitchhiking effects on genome variability. *Current Opinion in Genetics & Development* 11: 635–41.
15. Wall JD, **Andolfatto P**, Przeworski M. 2002. Testing models of selection and demography in *Drosophila simulans*. *Genetics* 162: 203–16.
16. **Andolfatto P**, Scriber M, Charlesworth B. 2003. Lack of association between mtDNA haplotypes and a female limited mimicry locus in *Papilio glaucus*. *Evolution* 57: 305–16.
17. **Andolfatto P**, Wall JD. 2003. Patterns of linkage disequilibrium across a recombination gradient in African *Drosophila melanogaster*. *Genetics* 165: 1289–305.
18. Halligan DL, Eyre-Walker AC, **Andolfatto P**, Keightley PD. 2004. Patterns of evolutionary constraints in intronic and intergenic DNA of *Drosophila*. *Genome Research* 14: 273–9.
19. Haddrill PR, Thornton KR, Charlesworth B, **Andolfatto P**. 2005. Multilocus patterns of nucleotide variability and the demographic and selection history of *Drosophila melanogaster* populations. *Genome Research* 15(6): 790–9.
20. Haddrill PR, Charlesworth B, Halligan DL, **Andolfatto P**. 2005. Patterns of intron sequence evolution in *Drosophila* are dependent upon length and GC content. *Genome Biology* 6: R67.

**Refereed Publications ... cont.**

21. **Andolfatto P.** 2005. Adaptive evolution of non-coding DNA in *Drosophila*. *Nature* 437: 1149–52.
22. Thornton KR, **Andolfatto P.** 2006. Approximate Bayesian inference of bottleneck parameters reveals evidence for a recent, severe, bottleneck in non-African populations of *Drosophila melanogaster*. *Genetics* 172: 1607–19.
23. Bachtrog D, Thornton KR, Clark AC, **Andolfatto P.** 2006. Extensive introgression of mitochondrial DNA relative to nuclear gene flow in the *Drosophila yakuba* subgroup. *Evolution* 60: 292–302.
24. Thornton KR, Bachtrog D, **Andolfatto P.** 2006. X-chromosomes and autosomes evolve at similar rates in *Drosophila* - no evidence for faster-X protein evolution. *Genome Research* 16: 498–504.
25. Bachtrog D, **Andolfatto P.** 2006. Selection, recombination and demographic history in *Drosophila miranda*. *Genetics* 174: 2045–59.
26. Huelsenbeck JP, **Andolfatto P.** 2007. Inferring population structure under a Dirichlet process model. *Genetics* 175: 1787–1802 [Epub Dec 2006].
27. Putnam AS, Scriber M, **Andolfatto P.** 2007. Discordant divergence times among Z chromosome regions between two ecologically distinct swallowtail butterfly species. *Evolution* 61: 912–27.
28. Thornton KR, Jensen JD, Becquet C, **Andolfatto P.** 2007. Progress and prospects in mapping recent selection in the genome. *Heredity* 98: 340–8.
29. **Andolfatto P.** 2007 Hitchhiking effects of recurrent beneficial amino acid substitutions in the *Drosophila melanogaster* genome. *Genome Research* 17: 1755–62.
30. Jeong S, Rebeiz M, **Andolfatto P**, Werner T, True J, Carroll SB. 2008. The evolution of gene regulation underlies the morphological divergence of two closely related *Drosophila* species. *Cell* 132: 783–93.
31. Wright SI, **Andolfatto P.** 2008. The impact of natural selection on the genome: Emerging patterns in *Drosophila* and *Arabidopsis*. *Annual Review of Ecology, Evolution and Systematics* 39: 193–213.
32. Haddrill PR, Bachtrog D, **Andolfatto P.** 2008. Positive and negative selection on noncoding DNA in *Drosophila simulans*. *Molecular Biology & Evolution* 25: 1825–34.
33. Jensen JD, Thornton KR, **Andolfatto P.** 2008. An approximate Bayesian estimator suggests strong recurrent selective sweeps in *Drosophila*. *PLoS Genetics* 4: e1000198.
34. **Andolfatto P.** 2008. Controlling type-I error of the McDonald-Kreitman test in genome wide scans for selection on noncoding DNA. *Genetics* 180: 1767–71.
35. Sella G, Petrov DA, Przeworski M, **Andolfatto P.** 2009. Pervasive natural selection in the *Drosophila* genome? *PLoS Genetics* 5: e1000495.
36. Rebeiz M, Ramos-Womack M, Jeong S, **Andolfatto P**, Werner T, True J, Stern D, Carroll SB. 2009. Evolution of the tan locus contributed to pigment loss in *Drosophila santomea*: A response to Matute et al. *Cell* 139: 1–8.
37. Parsch J, Novozhilov S, Saminadin-Peter SS, Wong KM, **Andolfatto P.** 2010. On the utility of short intron sequences as a reference for the detection of positive and negative selection in *Drosophila*. *Molecular Biology & Evolution* 27(4): 1–9.

**Refereed Publications ... cont.**

38. **Andolfatto P**, Wong KM, Bachtrog D. 2010. Effective population size and the efficacy of selection on the X chromosomes of two closely related *Drosophila* species. *Genome Biology & Evolution* 3: 114–28.
39. Callahan B, Neher RA, Bachtrog D, **Andolfatto P**, Shraiman BI. 2011. Correlated evolution of nearby residues in *Drosophilid* proteins. *PLoS Genetics* 7(2): e1001315.
40. **Andolfatto P**, Davison D, Erezyilmaz D, Hu TT, Mast J, Sunayama-Morita T, Stern DL. 2011. Multiplexed Shotgun Genotyping for Rapid and Efficient Genetic Mapping. *Genome Research* 21: 610–7.
41. Huelsenbeck JP, **Andolfatto P**, Huelsenbeck ET. 2011. Structurama: Bayesian Inference of Population Structure. *Evolutionary Bioinformatics* 7: 1–5.
42. Wilson DJ, Hernandez RD, **Andolfatto P**, Przeworski M, 2011. A phylogenetic-population genetic approach to inferring natural selection along coding sequences. *PLoS Genetics* 7:e1002395.
43. Aardema ML, Zhen Y, **Andolfatto P**. 2011. The evolution of cardenolide-resistant forms of Na<sup>+</sup>,K<sup>+</sup>-ATPase in *Danainae* butterflies. *Molecular Ecology* 21(2):340-9..
44. Zhen Y, **Andolfatto P**. 2012. Detecting selection in non-coding DNA. *Methods in Molecular Biology* 856: 141–59.
45. Slotte T, Hazzouri KM, Stern D, **Andolfatto P**, Wright SI. 2012. Genetic architecture and adaptive significance of the selfing syndrome in *Capsella rubella*. *Evolution* 66: 1360–74.
46. Garrigan D, Kingan SB, Geneva AJ, **Andolfatto P**, Clark AG, Thornton KR, Presgraves DC. 2012. Genome sequencing reveals complex speciation in the *Drosophila simulans* clade. *Genome Research* 22: 1499–511.
47. Cande J, Stern DL, **Andolfatto P**, Prud'homme B, Gompel N. 2012. Evolution of multiple additive loci caused divergence between *Drosophila yakuba* and *D. santomea* in wing rowing during male courtship. *PLoS One* 7: e43888.
48. Leffler EM, Bullaughey K, Matute DR, Meyer W, Ségurel L, Venkat A, **Andolfatto P**, Przeworski M. 2012. Revisiting an Old Riddle: What Determines Genetic Diversity Levels within Species? *PLoS Biology* 10: e1001388.
49. Zhen Y, Aardema ML, Medina EM, Schumer M, **Andolfatto P**. 2012. Parallel molecular evolution in an herbivore community. *Science* 337: 1634–7.
50. Hu TT, Eisen MB, Thornton KR, **Andolfatto P**. 2013. A second-generation assembly of the *Drosophila simulans* genome provides new insights into patterns of lineage-specific divergence. *Genome Research* 23: 89–98.
51. Schumer M, Cui R, Boussau B, Walter R, Rosenthal G, **Andolfatto P**. 2012. An evaluation of the hybrid speciation hypothesis for *Xiphophorus clemenciae* based on whole genome sequences. *Evolution* 67: 1155–68.
52. Slotte T, Hazzouri KH, Ågren JA, Koenig D, Maumus F, Guo Y, Steige K, Platts AE, Escobar JS, Newman LK, Wang W, Mandáková T, Vello E, Smith LM, Steffen J, Takuno S, Brandvain Y, Coop G, **Andolfatto P**, Hu TT, Blanchette M, Clark RM, Quesneville H, Nordborg M, Gaut BS, Lysak MA, Jenkins J, Grimwood J, Prochnick S, Shu S, Rokhsar D, Schmutz J, Weigel D, Wright SI. 2013. The *Capsella rubella* genome and the genomic consequences of rapid mating system evolution. *Nature Genetics* 45: 831–5.



**Refereed Publications ... cont.**

53. Cui R, Schumer M, Kruesi K, Walter R, **Andolfatto P**, Rosenthal G. 2013. Phylogenomics reveals extensive reticulate evolution in Xiphophorus fishes. *Evolution* 67: 2166–79. [Epub 2013 Apr 4].
54. Schumer M, Rosenthal G, **Andolfatto P**. 2014. How common is homoploid hybrid speciation? *Evolution*. 68(6):1553-60.
55. Schumer M, Cui R, Powell D, Dresner R, Rosenthal GG, **Andolfatto P**. 2014. High-resolution mapping reveals hundreds of genetic incompatibilities in hybridizing fish species. *eLife*. 10.7554/eLife.02535.
56. Rogers RL, Cridland JM, Shao L, Hu TT, **Andolfatto P**, Thornton KR. 2014. Landscape of standing variation for tandem duplications in *Drosophila yakuba* and *Drosophila simulans*. *Mol Biol Evol*. 31:1750-66.
57. Rogers RL, Shao L, Sanjak J, **Andolfatto P**, Thornton KR. 2014. Revised annotations, sex-biased expression, and lineage-specific genes in the *Drosophila melanogaster* group. *G3*. 4(12):2345-51. doi: 10.1534/g3.114.013532.
58. Schumer M, Cui R, Rosenthal GG, **Andolfatto P**. 2015. Reproductive isolation of hybrid populations driven by genetic incompatibilities. *PLoS Genetics* 11(3):e1005041. doi: 10.1371/journal.pgen.1005041.
59. Smith HA, White BJ, Kundert P, Cheng C, Romero-Severson J, **Andolfatto P**, Nora J. Besansky. 2015. Genome-wide QTL mapping of saltwater tolerance in sibling species of Anopheles (malaria vector) mosquitoes. *Heredity* (in press).

**Publications ... submitted and in preparation.**

1. Elyashiv E, Sattath S, Hu TT, Strustovsky A, McVicker G, **Andolfatto P**, Coop G, Sella G. A genomic map of the effects of linked selection in *Drosophila*. arXiv doi: <http://arxiv.org/abs/1408.5461>. Submitted.
2. McCulloch K, Yuan F, Zhen Y, Aardema ML, Smith G, **Andolfatto P**, Briscoe AD. Sexual dimorphism and species divergence following UV opsin duplication in butterflies. Submitted.
3. Park E, Rogers RL, **Andolfatto P**, Thornton KR, Mortazavi A. Analysis of canonical A-to-I RNA editing in *Drosophila* using ICE-seq. Submitted.
4. Gosh R, Bloom JS, Mohammadi A, Schumer ME, **Andolfatto P**, Ryu WS, Kruglyak L. Genetics of intra-species variation in avoidance behavior induced by a thermal stimulus in *C. elegans*. Submitted.
5. Schumer M, Cui R, Gutin M, Rosenthal GG, **Andolfatto P**. simMSG: an experimental design tool for high-throughput genotyping of natural and artificial hybrids. Submitted.
6. Zhen Y, **Andolfatto P**. Epistatic interactions are prevalent in 3'UTR evolution. In prep.
7. **Andolfatto P**, Hu TT, Thornton KR. Population genomic variation of *Drosophila simulans*. In prep.
8. Aardema M, Schumer M, Briscoe AD, **Andolfatto P**. Adaptive protein divergence in butterflies. In prep.
9. Aardema M, Schumer M, **Andolfatto P**. Genomic heterogeneity in divergence between two hybridizing butterfly species. In prep.

**Invited Seminars**

1. Université Paris VI, Jussieu, Paris, Feb 2000.
2. Molecular Biology & Genetics, Cornell University, NY, Oct 2000.
3. Genetics, University of Barcelona, Barcelona, Feb 2002.
4. Biology, University of Rochester, NY, Jan 2002.
5. Zoology, University of Toronto, Toronto, Jan 2002.
6. Ecology & Evolution, University of California at Davis, CA, Aug 2003.
7. Ecology, Behaviour & Evolution, UC San Diego, CA, Feb 2004.
8. Ecology & Evolutionary Biology, University of Michigan, MI, Mar 2004.
9. Ecology, Behaviour & Evolution, UC San Diego, CA, Apr 2004.
10. Biology, Indiana University, IN, Dec 2004.
11. Ecology and Evolutionary Biology, Rockefeller University, NY, Apr 2006.
12. Ecology & Evolutionary Biology, University of Arizona, AZ, Oct 2006.
13. Ecology, Evolution & Behaviour, University of Texas at Austin, TX, Oct 2006.
14. Genetics, University of Melbourne, Australia, Feb 2007.
15. Center for Computational Biology, UC Berkeley, CA, Mar 2007.
16. Dept. of Biology, Stanford University, CA, Apr 2007.
17. Ecology & Evolutionary Biology, University of California Irvine, CA, Apr 2007.
18. Biological Sciences, University of Southern California, CA, Apr 2007.
19. Invited Discussion Leader, Gordon Conference in Molecular Evolution, Ventura, CA, Feb 2008.
20. Dept. of Biology, University of Pennsylvania, PA, Oct 2008.
21. Dept. of Ecology & Evolution, SUNY Stony Brook, NY, Nov 2009.
22. Dept. of Ecology and Evolution, University of Chicago, IL, May 2010.
23. Molecular Biology and Genetics, Cornell University, NY, May 2013.
24. Graduate University for Advanced Studies, School of Advanced Sciences, Hayama, Japan, Aug 2013.
25. Dept. of Biological Sciences and the Pittsburgh Institute for Neurodegenerative Diseases, University of Pittsburgh, PA, October 2013.
26. Dept. of Biological Sciences, Columbia University, NY, Feb 2014.
27. Dept. of Biology, Texas A&M University, TX, Mar 2014.
28. Dept. of Biology, University of Toronto Mississauga Campus, Toronto, Mar 2014.
29. Ecology and Evolutionary Biology, University of Toronto St George Campus, Toronto, Mar 2014.
30. Home and Away Series, FAS Center for Systems Biology, Harvard University, MA, May 2014.
31. Museum of Comparative Biology, UC Berkeley, Nov 2014.
32. Vienna Graduate School for Population Genetics, Vienna, Austria, Dec 2014.

**Talks at conferences and workshops**

1. Society for the Study of Evolution, University of Wisconsin, Madison, Jun 1999.
2. Walter Fitch Prize Speaker at the Society for Molecular Biology and Evolution, Yale University, New Haven, Jun 2000.
3. Session Talk, European Society of Evolutionary Biology meetings, Aarhus, Denmark, Aug 2001.
4. Speaker at the Society for the Study of Evolution, University of Indiana, Bloomington, Jun 2000.

**Talks at conferences and workshops ... cont.**

5. Invited Platform Session Chair, 45th Annual Drosophila Research Conference, Washington D.C., Mar 2004.
6. Co-organiser, "*Genomes Evolving*" Symposium, UCSD, 15-16<sup>th</sup> April 2005. (Co-organisers: Hopi Hoekstra, UCSD; Doris Bachtrog, UCSD)
7. Genome Evolution Session Talk, The 10th Congress of The European Society for Evolutionary Biology, Krakow, Poland, Aug 2005.
8. Invited Session Chair, Genomics of non-human species, Biology of Genomes Meeting, Cold Spring Harbour Labs, May 2006.
9. Invited Session Chair, Drosophila Genomics Session, Annual meeting of the Society for Molecular Biology & Evolution, Tempe, Arizona, May 2006.
10. Invited Keynote Speaker, Lorne Genome Conference, Australia, Feb 2007.
11. Population Genetics Session, Society for Molecular Biology and Evolution, Halifax, Canada, Jun 2007.
12. Population Genetics & Genomics Workshop, Kavli Institute of Theoretical Physics, UCSB, Santa Barbara, CA, Jun 2008.
13. Session talk, "Beyond genome wide scans for selection" session, Society for Molecular Biology and Evolution, Barcelona, Spain, Jun 2008.
14. Invited Speaker, Workshop "Evolution and causes of codon usage in Drosophila", 50th Drosophila Research Conference, Chicago, IL, Mar 2009.
15. Invited speaker, "Population genomics: theory, computation and adaptation" session, Society for Molecular Biology and Evolution, University of Iowa, Jun 2009.
16. Invited Speaker, 9th Annual Genome Symposium, NYU, May 2010.
17. Invited Keynote Speaker, "Encuentro con la Biodiversidad 2010", Universidad de Los Andes, Bogota, Colombia, Oct 2010.
18. Invited speaker, President's Symposium, Annual Meeting of the Society for the Study of Evolution, Norman, OK, Jun 2011.
19. Invited Speaker, NSF IGERT in Evolution, Development and Genomics, University of Oregon, Portland, OR, Feb 2012.
20. Invited Platform Session Chair, 54th Annual Drosophila Research Conference, Washington D.C., Mar 2013.
21. Invited Speaker, "Parallel molecular evolution in an herbivore community", Charlesworthfest Plenary Session, Society for Molecular Biology and Evolution, Chicago, IL., July 2013.
22. Invited speaker, "Constraint, adaptive evolution and epistasis in Drosophila non-coding DNA evolution", Evolution of non-coding DNA Symposium, Hayama, Japan, Aug 2013.
23. Invited Session Chair, Population Genomics, Biology of Genomes Meeting, Cold Spring Harbour Labs, May 2014.
24. Contributed Talk, "Parallel evolution as a tool for understanding what limits the rate of adaptation", Annual Meeting of the Society for the Study of Evolution, Norman, OK, Jun 2014.
25. Invited Speaker, Gordon Research Conference: Quantitative Genetics and Genomics, Lucca, Italy, Feb 2015.
26. Invited Speaker, La Fouly Workshop on Population Genetics. "A genome wide scan for incompatibilities in hybrid fish populations" and "The genetics of hybrid incompatibilities". Université de Lausanne, Lausanne, Switzerland. 2015.

**Other contributed talks and posters**

1. Poster at the Society for Molecular Biology and Evolution meetings, University of British Columbia (June 1998). "Haplotype structure at the *In(2L)t* proximal breakpoint in *Drosophila melanogaster*".
2. Session Talk, European Drosophila Research Conference, Edinburgh, UK (August 2001): Wall, J. D., M. F. Przeworski and P. Andolfatto. "Contrasting patterns of LD on different chromosomes of *D. simulans*"
3. Poster, 46th annual Drosophila Research Conference, 30<sup>th</sup> March – 1 April 2005, San Diego. Thornton, K. R., and P. Andolfatto. Approximate Bayesian Inference Reveals Evidence for a Recent, Severe, Bottleneck in non-African Populations of *Drosophila melanogaster*.
4. Poster (by Kevin Thornton), 47<sup>th</sup> Annual Drosophila Research Conference, Houston, TX. (March 2006) "Thornton, K. R., D. Bachtrog, and P. Andolfatto, X chromosomes and autosomes evolve at similar rates in Drosophila."
5. Poster, 47<sup>th</sup> Annual Drosophila Research Conference, Houston, TX. (March 2006) "Constraint and adaptive evolution in Drosophila non-coding DNA".
6. Poster (by Andrea Putnam), Annual meeting of the Society for Molecular Biology & Evolution, Tempe, Arizona May 2006. "Putnam, A. S., M. Striber and P. Andolfatto, Discordant divergence times among Z chromosome regions between two ecologically distinct swallowtail butterfly species."
7. Session Talk (by Andrea Putnam), Annual meeting of the Society for the Study of Evolution, Stony Brook, NY June 2006. "Putnam, A. S., M. Striber and P. Andolfatto, Discordant divergence times among Z chromosome regions between two ecologically distinct swallowtail butterfly species."
8. Poster (by Andrea Putnam), Putnam, A.P. and P. Andolfatto. "Using approximate Bayesian computation to estimate ancestral population size and test allopatric speciation." Society for Molecular Biology and Evolution, Halifax, June 2007.
9. Poster, P. Andolfatto. "Linkage and type-I error of the McDonald-Kreitman test in applications to noncoding DNA" Society for Molecular Biology and Evolution, Barcelona, June 2008.
10. Poster, Andolfatto P., Davison D, Erezyilmaz D, Hu TT, Mast J, Sunayama-Morita T, Stern DL. "MSG - Multiplexed shotgun genotyping for rapid and efficient genetic mapping." 52nd Annual Drosophila Research Conference, San Diego, CA.
11. Poster, Andolfatto P., Davison D, Erezyilmaz D, Hu TT, Mast J, Sunayama-Morita T, Stern DL. "MSG - Multiplexed shotgun genotyping for rapid and efficient genetic mapping." CSHL Biology of Genomes, 2011.
12. Poster, Andolfatto P., Davison D, Erezyilmaz D, Hu TT, Mast J, Sunayama-Morita T, Stern DL. "MSG - Multiplexed shotgun genotyping for rapid and efficient genetic mapping." Annual Meeting of the Society for the Study of Evolution, June 2011. Norman, OK.
13. Poster, Schumer M, Cui R, Rosenthal G, Andolfatto P. No evidence for hybrid speciation in *Xiphophorus clemenciae*. Poster, Annual Meeting of the Society for the Study of Evolution, August 2012. Ottawa, ON. Canada.

**Other contributed talks and posters**

14. Poster, Elayashiv, E, Sattath S, Strutsosky A, Hu TT, Coop G, Andolfatto P, Sella G, Poster, A new approach to infer the genomic parameters of selective sweeps: application to *Drosophila melanogaster*. Annual Meeting of the Society for the Study of Evolution, August 2012. Ottawa, ON. Canada.
15. Poster, Zhen, Y. Andolfatto P. Prevalent epistatic interactions in 3'UTR evolution. 54<sup>th</sup> Annual Drosophila Research Conference, April 2013. Washington DC.
16. Contributed talk (by Molly Schumer). Schumer M, Cui R, Powell D, Rosenthal G, Andolfatto P. Genome-wide analysis of replicate hybrid zones between the swordtail fish *Xiphophorus birchmanni* and *X. malinche*. Annual Meeting of the Society for the Study of Evolution 2013, Snow Bird Utah.
17. Contributed talk (by Molly Schumer). Schumer M, Cui R, Rosenthal G, Andolfatto P. The role of hybrid incompatibilities in hybrid zone structure. Joint Annual Meeting of the Society for the Study of Evolution 2014, Raleigh, North Carolina.
18. Contributed talk (by Matthew Aardema). Aardema M, Andolfatto P. Signatures of selection and demography across multiple butterfly species. Annual Meeting of the Society for Molecular Biology & Evolution, San Juan, Puerto Rico.
19. Poster, Gutin M, Schumer M, Aardema M, Fukova I, Andolfatto P. RNAseq Analysis of Wing Pigmentation in *Papilio glaucus*. Annual Meeting of the Society for the Study of Evolution (SSE) 2014, Raleigh, North Carolina.
20. Poster, Han C, Zhen Y, Rowe L, Andolfatto P. comparison of Sex-Biased Gene Expression and Behavior in *Drosophila melanogaster* between Wild and Lab Strains. Joint Annual Meeting of the Society for the Study of Evolution 2014, Raleigh, North Carolina.

**D. TEACHING****Undergraduate teaching**

1. Teaching Assistant, BISC401, Molecular Evolution and Population Genetics, Division of Biological Sciences, University of Chicago (1998).
2. Co-Lecturer (1/2 quarter), Undergraduate Genetics Honours Program course, "Topics in Genome Evolution", with Brian Charlesworth, Institute of Cell, Animal and Population Biology, University of Edinburgh (2002).
3. Co-Lecturer (1/4 semester), BIO494, Seminar in Evolutionary Biology, University of Toronto (2004).
4. Lecturer, BIEB156, Introduction to Population Genetics, University of California, San Diego (2006 - 2008).
5. Lecturer, BIEB123, Molecular Methods in Ecology and Evolution, University of California, San Diego (2008).
6. Junior Tutorial, Evolutionary Biology Stream, Princeton University (2008, 2012).
7. Guest lecturer for Leonid Kruglyak, ISC/CHM/COS/MOL/PHY 236, "Genetics, genetic variation, the Hardy-Weinberg model, selection", Princeton University (2008 - 2012).
8. Co-lecturer (with Leonid Kruglyak), EEB/MOL414, The genetics of human populations, Princeton University (2009 - 2012).
9. Lecturer, FRS174, Freshman Seminar, Ancestry, genetics and medicine, Princeton University (2010).

**Undergraduate teaching ... cont.**

10. Co-Lecturer, EEB/MOL355, Introduction to Statistics, Princeton University (2011-2013).
11. Lecturer, ISC/CHM/COS/MOL/PHY 231/2, Section: Statistics. Princeton University (2012 - present).
12. Lecturer, ISC/CHM/COS/MOL/PHY 235/6, Section: Population genetics. Princeton University (2012 - 2015).
13. Lecturer, EEB/MOL414, The genetics of human populations, Princeton University (2014)
14. Undergraduate Academic Advisor, Rockefeller College, Princeton University. (2014-present).
15. Co-Lecturer, ISC336, Human Genomics: The past and future of the human genome, Princeton University (2016 - present)

**Graduate teaching**

1. Teaching Assistant, GEN201, Introduction to Genetic Analysis, Division of Biological Sciences, University of Chicago (1995).
2. Teaching Assistant, MSc Course, "Quantitative Genetics and Genome Analysis", Institute of Cell, Animal and Population Biology, University of Edinburgh (1999).
3. Co-Lecturer, BGGN204 "Speciation", University of California, San Diego (2005).
4. Co-Lecturer, EEB504 Fundamental Concepts in Ecology, Evolution, and Behavior, Princeton University (2008 - present).
5. Lecturer, EEB508, Population Genetics (Short course), Princeton University (2010, 2011).
6. Co-Lecturer, EEB506, Responsible Conduct in Research, Princeton University (2010 - present)

**Undergraduate Supervision**

1. Manolia Vougioukalou, Undergraduate Genetics Honors Project, 2000, University of Edinburgh. "Molecular variation at the *snf1A* locus in *Drosophila melanogaster*."
2. Alexie Papanicolou, Undergraduate Genetics Honors Project, 2002, University of Edinburgh. "The evolution of regulatory miRNAs in *Drosophila* and *Caenorhabditis*."
3. Robert Watt, Undergraduate Genetics Honors Project, 2002, University of Edinburgh. "The signature of natural selection at *cyp6g1*: a gene underlying DDT resistance in *Drosophila melanogaster*."
4. Adriana Puentes, Undergraduate project, 2003, University of Toronto. "mtDNA introgression in the *D. yakuba* species group."
5. Atosa Mehrfar, Undergraduate work-study project, 2003, University of Toronto. "The congruence of mtDNA and W-linked genealogies in the silkworm, *Bombyx mandarina*."
6. Elah Feder, NSERC Undergraduate Research Project, 2004, University of Toronto. "Population genetics of cardenolide resistance in the Monarch butterfly (*Danaus plexippus*)."

**Undergraduate Supervision ... cont.**

7. Clinton Edwards, Undergraduate Research Assistant, 2005, University of California San Diego. "Population genetics of female reproductive genes in *Drosophila*."
8. Linda Boettger, 2005, University of California San Diego, "Inferring deleterious mutation parameters for the human mitochondria using an approximate Bayesian approach."
9. Jerry Nnanabu, EEB, Senior Thesis Research, 2009-10, Princeton University. "Spatial variation in recombination rate in *Drosophila*."
10. Virginia Byron, EEB, Senior Thesis Research, 2009-10, Princeton University. "Evolution of gene expression associated with an evolved enhancer in *Drosophila*."
11. Michael Cheng, EEB, Senior Thesis Research, 2010-11, Princeton University. "Genomic approaches to population structure and migration in the Christmas Island Red Crab."
12. Benjamin Burton, EEB, Senior Thesis Research, 2010-11, Princeton University. "The molecular evolution of host-plant adaptation."
13. Nicole Chu, EEB, Senior Thesis Research, 2012-13, Princeton University. "Female preference and premating isolation in two sympatric fish species (*Xiphophorus*: Poeciliidae)."
14. Jesse Fields, EEB, Senior Thesis Research, 2012-13, Princeton University. "Convergent Evolution from Phenotype to Genotype."
15. Jamie Ding, Molecular Biology, Senior Thesis Research, 2012-13, Princeton University. "Na<sup>+</sup>/K<sup>+</sup>-ATPase substitutions that confer cardenolide resistance in insects."
16. Loren Castellon, EEB, Senior Thesis Research, 2012-13, Princeton University. "Genetic basis of a sexually selected trait in *Xiphophorus* fish."
17. Lucy Cobbs, EEB, Senior Thesis Research, 2013 – 14, Princeton University. "Molecular evolution of cardenolide resistance in insects."
18. Elizabeth Cutting, EEB, Senior Thesis Research, 2013-14, Princeton University. "Stress responses to arsenic in killifish."
19. Rachel Zambrowicz, EEB, Senior Thesis Research, 2013-14, Princeton University. "Personal genomics and disease susceptibility."
20. Rebecca Dresner, EEB, Senior Thesis Research, 2013-14, Princeton University. "The role of behavior in structured hybrid zones of *Xiphophorus* fish."
21. Megan S. Abbott, EEB, Senior Thesis Research, 2015-16, Princeton University, "Hybridization in *Xiphophorus birchmanni* and *X. malinche*"
22. Christopher D. Patacsil, EEB, Senior Thesis Research, 2015-16, Princeton University, "The effect of secondary metabolite combinations on parasite load in bumblebees."
23. Adam K. Rosenstein, EEB, Senior Thesis Research, 2015-16, Princeton University, "Evolution of cardenolide resistance in the Na,K-ATPase gene."

**Graduate Student Supervision**

1. Mark Fitzpatrick, Ph. D. Candidate, Thesis Committee member, University of Toronto. "Molecular evolution of polymorphic foraging strategies in the fruit fly, *Drosophila melanogaster*" (2003-2004).

**Graduate Student Supervision ... cont.**

2. Paul Williams, Ph. D. Candidate, Thesis Committee Member, University of Toronto. "Spatial effects on host-parasite coevolution" (2003-2004).
3. Kelly Dyer, Ph. D. Candidate, External Thesis Committee Member, University of Rochester. "Evolutionary genetics of sex ratio distortion in mycophagous *Drosophila*" (2003-2004).
4. Cate Dmitriew, M. Sc. Candidate, Thesis Committee Member, University of Toronto. "Sexual selection: Mutual mate choice in a water strider" (2004).
5. Andrea Putnam, Ph. D. Candidate, **Thesis Advisor**, University of California San Diego. "Selection on sex-linked variation in a butterfly hybrid zone" (2004-2008).
6. Olin Silander, Ph. D. Candidate, Thesis Committee Member, University of California San Diego. "Mutational Effects and Population Genetic Consequences: A study of two bacteriophages" (2005).
7. Fyodor Kondrashov, Ph. D. Candidate, **Thesis Co-advisor**, University of California San Diego. "New approaches to old problems in evolutionary genetics" (2005-2007).
8. Leslie Turner, Ph. D. Candidate, Thesis Committee Member, University of California San Diego. "Evolution of reproductive proteins in *Peromyscus*" (2005-2007).
9. Rachel Louie, M. Sc. Candidate, Thesis Committee Member, University of California San Diego. "Quantifying adaptive evolution at immunity genes in *Drosophila*" (2006).
10. Karen Wong, M. Sc. Candidate, Thesis Committee Member, University of California San Diego. "Alignment algorithms and evolutionary inferences" (2006).
11. Mark Chaisson, Ph. D. Candidate, Thesis Committee Member, University of California San Diego. "Micro-rearrangements and mammalian evolution" (2006-2008).
12. Flavia Nunes, Ph. D. Candidate, Thesis Committee Member, SIO/University of California San Diego. "Phylogeography of corals" (2006-2008).
13. Anna Bree, M. Sc. Candidate, Thesis Committee Chair, University of California San Diego. "Reproductive adaptations in response to sperm competition in *Peromyscus*" (2007).
14. Tatiana Gurbich, Ph. D. Candidate, Thesis Committee Member, University of California San Diego. "Bioinformatics and population genetics" (2007-2008).
15. Estienne Swart, Ph. D. Candidate, Thesis Committee Member, Princeton University. "Genomics of *Oxytricha*" (2008-2012).
16. Sergio Cordoba, Ph. D. Candidate, **Thesis Co-advisor**, Princeton University. "Avian phylogeography and evolution" (2008-2013).
17. Taniya Kaur, Ph.D. Candidate, Thesis Committee Member, New York University. "Understanding the Recombination Rate Domain Structure of the *C. elegans* Chromosome" (2009-2014).
18. Matthew Aardema, Ph. D. Candidate, **Thesis Advisor**, Princeton University. "Local adaptation and the species boundary in *Papilio* butterflies" (2009-present).
19. Ann Thomas, Ph. D. Candidate, Thesis Committee Member, Princeton University. "Invertebrate Immune Priming: Mechanisms, Pathogens and Polymorphism in Natural Populations" (2010-2015).
20. Kelly LaRue, Ph. D. Candidate, Thesis Committee Member, Princeton University. "The genetic architecture of mating behavior in *Drosophila*" (2010-2015).



**Graduate Student Supervision ... cont.**

21. Neo Christopher H. Chung, Ph. D. Candidate, Thesis Committee Member, Princeton University. "Statistical Significance of Features Driving Principal Components" (2011-2015).
22. Molly Schumer, Ph. D. Candidate, **Thesis Advisor**, Princeton University. "Hybridization and sexual selection in *Xiphophorus*" (2011-present).
23. Xin Wang, Ph. D. candidate, Thesis Committee Member, Princeton University. "The genetic basis of drug-drug interactions" (2011-2014).
24. Xiao Chen, Ph. D. Candidate, Thesis Committee Member, Princeton University. "Genome rearrangement in *Oxytricha*" (2011-2015).
25. Joshua Bloom, Ph. D. Candidate, Thesis Committee Member, Princeton University. "The genetic architecture of complex traits using large linkage mapping populations from crosses of *S. cerevisiae* strains" (2012-2013).
26. Christina Faust, Ph. D. Candidate, Thesis Committee Member, Princeton University. "Ecology and transmission dynamics of primate malarial" (2012-present).
27. Clair Han, Ph D. Candidate, **Thesis Advisor**, Princeton University. (2013-present).
28. Maria Gutin, Ph D. Candidate, **Thesis Advisor**, Princeton University. (2013-present).
29. Lu Yang, Ph D. Candidate, **Thesis Advisor**, Princeton University. (2014-present).
30. Patrick Reilly, Ph D. Candidate, **Thesis Advisor**, Princeton University. (2015-present).

**Postdoctoral Supervision**

1. Advisor, Dr. Penny Haddrill, 2002-2005, research funded by the British Biotechnology and Biological Sciences Research Council (BBSRC), "Demographic effects on genome variability in *Drosophila melanogaster* and its close relatives." Currently: Teaching Associate, University of Strathclyde, UK.
2. Co-Advisor, Dr. Jeffrey D. Jensen, 2006-2008, research funded by a NSF Bioinformatics Postdoctoral Fellowship, "Population genetics mapping of *de novo* dosage compensation binding sites in *Drosophila*" (with Doris Bachtrog, UCSD). Currently: Group Leader, École Polytechnique Federale de Lausanne (EPFL), Switzerland.
3. Advisor, Dr. Tina Hu, 2009-2012, "Population genomics of *Drosophila*". Currently: Senior Bioinformatics Scientist, Celmatix.
4. Advisor, Dr. Ying Zhen, 2010-2014, "Adaptive evolution of non-coding DNA and gene expression divergence in *Drosophila*". Currently: Postdoctoral Fellow at UCLA.
5. Mentor, Visiting Postdoc, Rajarshi Ghosh, 2012-2014, "Evolution of avermectin resistance in *C. elegans*". Currently: Staff Scientist, ClinGen Consortium Department of Pediatrics/Oncology, Baylor College of Medicine.

## E. ADMINISTRATIVE POSITIONS

### Departmental service

1. 2003-04, Co-organizer, Eco/Evolution Seminar Series, University of Toronto.
2. 2003-04, Member, Information Technologies Committee, University of Toronto.
3. 2003-04, Member, Faculty Search Committee (Evolution/Development), University of Toronto.
4. 2004-07, Graduate Admissions Committee, Division of Biological Sciences, University of California San Diego.
5. 2007-08, Chair, Evolution Search Committee, Section of Ecology, Behavior & Evolution, Division of Biological Sciences, University of California San Diego.
6. 2008, Associate Director (UCSD) for NERE, Network for Experimental Research on Evolution, University of California Multicampus Research Project (<http://nere.bio.uci.edu/>).
7. 2008 - 2012, Graduate Admissions Committee, EEB, Princeton University.
8. 2009, Faculty Search Committee, EEB, Princeton University.
9. 2012, 2014, Faculty Search Committee, EEB/MOL Joint Position, Princeton University.
10. 2013, Faculty Search Committee, EEB/LSI Joint Position, Princeton University.
11. 2014-18, Executive Committee for the Certificate Program in Quantitative and Computational Biology.

## F. MEDIA COVERAGE

### Review articles

1. Kondrashov, A.S. 2005. News and Views. Evolutionary biology - Fruitfly genome is not junk. *Nature* 437: 1106-1106
2. Flintoft, L. 2005. Genome evolution - An adaptive view of non-coding DNA. *Nature Reviews Genetics*. 6: 880.
3. Culotta, E. and E. Pennisi. 2005. Breakthrough of the Year: Evolution in Action. *Science* 310: 1878-1879.
4. Phillips, M.L. 2005. Non-coding DNA adapts: Drosophila non-coding DNA exhibits both negative and positive selection. *The Scientist* 6: 20051020-01.

### Newspapers

1. Lieberman, B. Oct 20<sup>th</sup> 2005, "DNA's lesser parts could be as vital as genes themselves." *San Diego Union Tribune*.
2. Jha, A. Oct 20<sup>th</sup> 2005. "Time to stop trashing junk DNA." *The Guardian Weekly* (London).
3. Kramar, V. T. Oct 20<sup>th</sup> 2005. "Genetik: Mist oder nicht Mist? Neue Fruchtfliegen-Fakten im Streit über "sinnlose" DNA." *Die Presse*.
4. Faye Flam. Sept 30<sup>th</sup> 2012. "Insects Show How DNA Mistakes become Evolutionary Innovation." *Philadelphia Inquirer, Daily News, Evolution*: <http://www.philly.com/philly/blogs/evolution/New-blog-post-by-Faye-Flam.html>
5. Morgan Kelly. Oct 25<sup>th</sup> 2012. "Far from random, evolution follows a predictable genetic pattern, Princeton researchers find". *News at Princeton*: <http://www.princeton.edu/main/news/archive/S35/06/74S40/>

**Websites, blogs and popular magazines**

1. <http://blogs.discovermagazine.com/gnxp/2012/09/an-ontology-of-genetic-diversity/>
2. <http://news.sciencemag.org/sciencenow/2012/09/scienceshot-to-feast-on-toxic-pl.html>
3. <http://thegoodgardeners.wordpress.com/tag/peter-andolfatto/>
4. <http://cen.acs.org/articles/90/i41/Insects-Beat-Poison.html>
5. <http://monarchalert.calpoly.edu/html/readings.html>
6. <https://paw.princeton.edu/issues/2013/09/18/pages/3279/index.xml>
7. “Genes gives clues to outcome of species interbreeding”, May 21, 2014, by M. Schumer, Ph. D. Student, <https://www.sciencenews.org/article/genes-gives-clues-outcome-species-interbreeding>
8. “Hybrid approach”, July 31, 2014, by M. Schumer, Ph. D. Student, <http://elifesciences.org/podcast/episode13>