

CURRICULUM VITAE

1. Daniel Michael Weinreich

Assistant Professor of Biology
Department of Ecology and Evolutionary Biology, and
Center for Computational Molecular Biology
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2. Home Address

Providence, RI 02903

3. Education

- 1992 – 1998 Ph.D. in Organismal and Evolutionary Biology (Richard Lewontin, advisor).
Harvard University, Cambridge, Massachusetts. Thesis: *The Molecular Clock and
the Evolution of OXPHOS Enzymes in Mammals*
- 1978 – 1983 B.S. in Computer and Communication Science, with highest honors (John H.
Holland, advisor). University of Michigan, Ann Arbor, Michigan.

4. Professional Appointments

- 2007- Assistant Professor of Biology. Department of Ecology and Evolutionary Biology,
and Center for Computational Molecular Biology, Brown University, Providence,
RI.
- 2004 – 2006 Postdoctoral Research Associate with Daniel L. Hartl, Organismic and
Evolutionary Biology Department, Harvard University, Cambridge, MA.
- 2000 – 2003 NIH National Research Service Award Postdoctoral Fellow. Sponsors: Dr. Lin
Chao, Department of Ecology and Evolution, University of California at San Diego
and Dr. Daniel L. Hartl, Organismic and Evolutionary Biology Department,
Harvard University, Cambridge, MA.
- 1998 – 2000 Post-doctoral Research Associate with Dr. David Rand, Department of Ecology
and Evolutionary Biology, Brown University, Providence, RI.
- 1989 – 1992 Software Engineer, Proteon Corporation, Westborough, MA.
- 1983 – 1989 Software Engineer, Codex Corporation, Canton, MA.

5. Completed Publications

a. *Books/Monographs*

None

b. *Chapters in Books*

Cruzan, Mitchell and **Daniel M. Weinreich**. *Adaptive Landscapes* (in press, Brenner's Encyclopedia of Genetics 2nd Edition, Elsevier Publishers, Amsterdam).

Weinreich, Daniel M. (2010) *Predicting molecular evolutionary trajectories in principle and in practice*. Encyclopedia of Life Sciences, John Wiley and Sons, Ltd: Chichester.

c. *Refereed Journal Articles*

Weinreich, Daniel M., Suzanne Sindi and Richard Watson (in press, Journal of Statistical Mechanics). *Finding the Boundary between Evolutionary Basins of Attraction, and Implications for Wright's Fitness Landscape Analogy*.

Liberles, David A., Sarah A. Teichmann, Ivet Bahar, Ugo Bastolla, Jesse Bloom, Erich BornbergBauer, Lucy J. Colwell, A.P. Jason de Koning, Nikolay V. Dokholyan, Julian Echave, Arne Elofsson, Dietlind L. Gerloff, Richard A. Goldstein, Johan A. Grahnen, Mark T. Holder, Clemens Lakner, Nicholas Lartillot, Simon C. Lovell, Gavin Naylor, Tina Perica, David D. Pollock, Tal Pupko, Lynne Regan, Andrew Roger, Nimrod Rubinstein, Eugene Shakhnovich, Kimmen Sjölander, Shamil Sunyaev, Ashley I. Teufel, Jeffrey L. Thorne, Joseph W. Thornton, **Daniel M. Weinreich**, Simon Whelan (2012). *The Interface of Protein Structure, Protein Biophysics, and Molecular Evolution* Protein Science **21**(6):769-785.

Watson, Richard A., **Daniel M. Weinreich** and John Wakeley (2010). *Genome Structure and the Benefit of Sex*. Evolution **65**:523 – 536.

Rand, David M., **Daniel M. Weinreich**, Daniel Lerman, Donna Folk and George Gilchrist (2010). *Three selections are better than one: clinal variation of thermal QTL from independent selection experiments in Drosophila*. Evolution **64**:2921 – 2934.

Christin, Pascal-Antoine, **Daniel M. Weinreich** and Guillaume Besnard (2010). *The Causes and Evolutionary Significance of Genetic Convergence*. Trends in Genetics **26**:400-405.

O'Keefe, Kara J., Olin K. Silander, Helen McCreery, **Daniel M. Weinreich**, Kevin M. Wright, Lin Chao, Scott V. Edwards and Paul E. Turner. (2010) *Biogeography of sexual reassortment in RNA phages*. Evolution **64**:3010-3023.

Brown, Kyle M., Mark A. DePristo, **Daniel M. Weinreich** and Daniel Hartl (2009). *Temporal constraints on the incorporation of regulatory mutants in evolutionary pathways*. Molecular Biology and Evolution **26**:2455-2462.

Lozovsky, Elena, Thanat Chookajorn, Kyle Brown, Mallika Imwong, Philip J. Shaw, Sumalee Kamchonwongpaisan, Daniel E. Neafsey, **Daniel M. Weinreich** and Daniel Hartl (2009). *Stepwise acquisition of pyrimethamine resistance in the malaria parasite*. PNAS **106**:12015 – 12030.

DePristo, Mark A., Daniel L. Hartl and **Daniel M. Weinreich** (2007). *Mutational reversions during adaptive protein evolution*. Molecular Biology and Evolution **8**:1608-1610.

- Poelwijk, Frank J., Daniel J. Kivet, **Daniel M. Weinreich** and Sander J. Tans (2007) *Empirical fitness landscapes reveal accessible paths*. *Nature* **445**:383-386.
- Polz, Martin, Dana E. Hunt, Sarah P. Preheim and **Daniel M. Weinreich** (2006) *Patterns and mechanisms of genetic and phenotypic differentiation in marine microbes*. *Phil. Trans. Roy. Soc. B* **361**:2009-2021 doi 10.1098/rstb.2006.1928
- Watson, Richard A., **Daniel M. Weinreich**, and John Wakeley (2006) *Effects of Intra-gene Epistasis on the Benefit of Sexual Recombination*. *Biochemical Society Transactions* **34**:560-561.
- Weinreich, Daniel M.**, Nigel Delaney, Mark A. DePristo and Daniel L. Hartl (2006). *Darwinian evolution can follow only very few mutational paths to fitter proteins*. *Science* **312**:111-114.
- Silander, Olin*, **Daniel M. Weinreich***, Kevin Wright, Kara O'Keefe, Camilla U. Rang, Paul Turner and Lin Chao (2005). *Widespread genetic exchange among terrestrial bacteriophage*. *Proc. Nat. Acad. Sci. USA* **102**:19009-19014.
- *These authors contributed equally to this work.
- Weinreich, Daniel M.** (2005). *The Rank Ordering of Genotypic Fitness Values Predicts Genetic Constraint on Natural Selection on Landscapes Lacking Sign Epistasis*. *Genetics* **171**(3): 1397-1405.
- DePristo, Mark A, **Daniel M. Weinreich** and Daniel L. Hartl (2005). *Missense meanderings through sequence space: a biophysical perspective on protein evolution*. *Nature Reviews Genetics* **6**(8):678-687.
- Weinreich, Daniel M.**, Richard A. Watson and Lin Chao (2005). *Perspectives: Sign epistasis and constraint on evolutionary trajectories*. (Cover article) *Evolution* **59**:1165-1174.
- Weinreich, Daniel M.** and Lin Chao (2005). *Rapid evolutionary escape by large populations from local peaks is likely in nature*. *Evolution*: **59**:1175-1182.
- Sheldahl, Lea, **Daniel M. Weinreich** and David M. Rand. (2003). *Recombination, dominance and selection on amino acid polymorphism in the Drosophila genome: Contrasting patterns on the X and fourth chromosomes*. *Genetics* **165**: 1195-1208.
- Rand, David M, **Daniel M. Weinreich** and Brent O. Cezairliyan (2001). *Neutrality tests of conservative-radical amino acid changes in nuclear- and mitochondrially-encoded proteins*. *Gene* **261**: 115-125.
- Weinreich, Daniel M.** (2001). *The rates of molecular evolution in rodent and primate mitochondrial DNA*. *J Molecular Evolution* **52**: 40-50.
- Weinreich, Daniel M.** and David M. Rand (2000). *Contrasting patterns of non-neutral evolution in proteins encoded in nuclear and mitochondrial genomes*. *Genetics* **156**: 385-399.
- Nielson, Rasmus and **Daniel M. Weinreich** (1999). *The age of nonsynonymous and synonymous mutations in animal mtDNA and implications for the mildly deleterious theory*. *Genetics* **153**: 497-506

d. *Non-refereed Journal Articles*

- Weinreich, Daniel M.** (2011) *High-throughput identification of genetic interactions in HIV-1*. *Nature Genetics* **43**: 398-400.

e. *Book Reviews*

None

f. *Abstracts*

Lake-Bakaar, Gerrond, Linda Ruffini and **Daniel M. Weinreich**. (2002). *Ultra-rapid molecular evolution of hepatitis C virus E2-HRV1 sequences after interferon and ribavirin*. *Gastroenterology* **122**: 473Suppl.

g. *Invited Lectures*

Institute for Bioinformatic and Evolutionary Studies, University of Idaho, Moscow, ID. August 9, 2012.

Department of Ecology and Evolutionary Biology, University of Pennsylvania, Philadelphia, PA. March 29, 2012.

Department of Ecology and Evolutionary Biology, Kansas University, Lawrence, KS. March 27, 2012.

Cologne Spring Meeting, University of Cologne, Cologne, Germany. February 22 - 25, 2012.

Institute for Atomic and Molecular Physics (AMOLF), Dutch Foundation for Fundamental Research on Matter (FOM), Amsterdam, The Netherlands. February 20, 2012.

Department of Biochemistry and Molecular Pharmacology, University of Massachusetts Medical School, Worcester, MA. January 11, 2012.

Josephine Bay Paul Center, Marine Biological Labs, Woods Hole, MA. December 9, 2011.

European Society of Evolutionary Biologists Annual Meeting, Tübingen, Germany. August 21 – 25, 2011.

Society for the Study of Evolution Annual Meeting, Norman, Oklahoma. President's Symposium. June 18 – 21, 2011.

Santa Fe Institute, Santa Fe, NM. June 7, 2011.

Green Center for Systems Biology, University of Texas Southwestern Medical Center, Dallas, TX. May 19, 2011.

Portugaliae Genetica 14 Edition, IPATIMUP, University of Porto, Portugal. March 17 – 18, 2011.

Institute for Bioinformatic and Evolutionary Studies, University of Idaho, Moscow, ID. February 10, 2011.

Kavli Institute for Theoretical Physics Workshop on Microbial and Viral Evolution, University of California, Santa Barbara, Goleta, CA. January 4 – 21, February 14 - 25, 2011.

Quantitative Biology Graduate Program *Science at the Edge* seminar series, Michigan State University, East Lansing, MI. December 10, 2010.

Society for Industrial and Applied Mathematics, Conference on Discrete Mathematics Conference, Austin, TX, June 14 – 17, 2010.

Department of Biology, University of Nebraska, Lincoln, NE. March 4, 2010.

Department of Chemistry, Harvard University, Cambridge, MA. February 24, 2010

Aspen Center for Physics Winter Conference: Populations, Evolution and Physics. Aspen, CO. January 3 – 9, 2010.

Department of Biology, University of Rochester, Rochester, NY. December 11, 2009.

Gordon Research Conference on Microbial Population Biology, Andover, NH. July 19 – 24, 2009.

Department of Molecular and Cellular Biology and Biochemistry, Brown University, Providence, RI. Graduate Trainer Seminar. May 20, 2009.

Department of Ecology and Evolutionary Biology, State University of New York, Stony Brook, NY. May 6, 2009.

Life Sciences Institute Eighth Annual Symposium, University of Michigan, Ann Arbor, MI. April 28, 2009

Instituto Gulbenkian de Ciência, Oeiras, Portugal. March 23, 2009.

Portugaliae Genetica 12 Edition, IPATIMUP, University of Porto, Portugal. Keynote Speaker. March 19 – 20, 2009.

Indiana University Department of Biology, Bloomington, IN. Graduate student invited speaker January 16, 2009.

Biology New England South (BioNES) Meeting, Roger Williams University, Bristol, RI. December 2, 2008

Gordon Research Conference on Molecular Evolution, Ventura, CA. February 3 – 8, 2008.

University of Massachusetts Medical School Department of Molecular Genetics and Microbiology. Worcester, MA. November 30, 2007.

University of Washington Department of Biology. Seattle, WA. November 9, 2007.

Duke University Department of Biology. Durham, NC. Graduate student invited speaker October 25, 26, 2007.

American Society for Microbiology General Meeting, Toronto, Canada. May 21-25, 2007.

Centre d'Ecologie Fonctionnelle et Evolutive (CEFE), Centre National de la Recherche Scientifique (CNRS), Montpellier, France. May 7, 2007.

Jacques Monod Conference on Evolutionary Genomics, Roscoff, France. May 2 – 6, 2007.

Marine Biological Laboratory, Josephine Bay Paul Center, Woods Hole, MA. January 19, 2007.

New England Molecular Evolutionary Biologists Meeting, Amherst, MA. November 4, 2006.

Brown University Department of Molecular Biology, Cell Biology and Biochemistry, Providence, RI. June 13, 2006.

Brown University Center for Computational Molecular Biology, Providence, RI. March 20, 2006.

Harvard University Faculty of Arts and Sciences Systems Biology Initiative, Cambridge, MA. March 15, 2006.

Harvard Medical School Department of Microbiology and Molecular Genetics, Boston, MA. February 2, 2006.

Broad Institute of MIT and Harvard Infectious Disease Initiative, Cambridge, MA. January 5, 2006.

University of Massachusetts Department of Microbiology, Amherst, MA. November 7, 2005.

University of New Hampshire Department of Microbiology, Durham, NH. October 25, 2005.

Yale University Department of Ecology and Evolution, New Haven, CT, September 21, 2005.

Broad Institute of MIT and Harvard Medical Population Genetics Group, April 28, 2005.

University of Iowa Biology Department of Biology, Iowa City, IA. January 13, 2005.

University of North Carolina Department of Biology, Chapel Hill, NC. March 26, 2004.

University of Albany, SUNY Department of Biology, Albany, NY. February 26, 2002.

University of California Department of Evolution and Ecology, Davis. Davis, CA May 15, 2001.

h. Papers Read

None

i. Works in Review

Knies Jennifer L, Angus Angermeyer and **Daniel M. Weinreich** (submitted August 26, 2012 to PLoS Genetics). *Increased Epistasis at High Temperatures Does Not Constrain Adaptation: Evolution of Antibiotic Resistance in the Beta-lactamase Gene.*

Weinreich, Daniel M. and Jennifer L. Knies (Revision submitted to Evolution September 3, 2012). *Fisher's Geometric Model of Adaptation Meets the Functional Synthesis: Data on Pairwise Epistasis for Fitness Yields Insights into the Shape and Size of Phenotype Space.*

j. Works in Progress (underlined names represent Brown University undergraduates)

Knies, Jennifer L., Fei Cai, Mark A. DePristo and **Daniel M. Weinreich** (in prep). *Dissecting epistasis for fitness: Kinetics and thermostability in an antibiotic resistance enzyme.*

Kang, Jonathan and **Daniel M. Weinreich** (in prep). *Thermal persistence in E. coli is not the consequence of its heat-shock response.*

Baker, Christopher W., Tanayott Thaweethai, Jeffrey Yuan, Meghan Hollibaugh Baker, Craig Miller, Paul Joyce and **Daniel M. Weinreich** (in prep for Genetics). *Genetically determined variation in lysis time variance in the bacteriophage ϕ X174.*

Miller, Craig, Christopher W. Baker, **Daniel M. Weinreich** and Paul Joyce (in prep for Genetics). *Estimating bacteriophage life history parameters from extensive hidden data*

6. Research Grants

a. Current Grants

NSF Emerging Frontiers Award 1038657. *Inferring Biological Mechanism from Mutational Interactions.* Sept 15, 2010 – Aug 31, 2013. Sole PI: DMW. \$259,079.

NIH RO1GM095728. *Developing and Testing a Novel Geometric Model of Protein Evolution.* Sept 1, 2011 – Aug 31, 2016. Sole PI: DMW. \$1,414,522.

b. Completed Grants

Brown University Salomon Faculty Research Award *The genetic basis of adaptation to novel environments in laboratory microbial populations.* Feb 1, 2008 – June 30, 2009. Sole PI: DMW. \$16,000.

NIH 5RO1GM079536. *The Evolution of Malarian Antifolate Resistance.* Mar 1, 2007 – Feb 29, 2012. Author and co-investigator: DMW. PI: Dr. Daniel L. Hartl. \$1,600,000.

NSF Population Biology DEB Award 0343598. *Molecular evolvability in theory and in a bacterial drug-resistance gene*. Feb 1, 2004 – Jan 31, 2007. Author and Co-investigator: DMW PI: Dr. Daniel L. Hartl. \$236,000.

NIH National Research Service Award F32 GM20736. *Molecular evolution in the bacteriophage ϕ 6* Aug 1, 2000 – Jul 31, 2003. Sole PI: DMW. \$109,164

NSF Population Biology DEB Award 9981497. *Recombination, dominance, and selection on amino acid mutations*. Mar 1, 2000 – Feb 28, 2002. Co-author and co-investigator: DMW PI: Dr. David Rand. \$172,367

NIH National Research Service Award *Animal mtDNA and a novel model of molecular evolution*. Awarded Jul 1998; declined. Sole PI: DMW. \$79,312.

NSF Doctoral Dissertation Improvement Grant Award DEB-97000982. Oct 1, 1997 – June 1, 1998. Sole PI: DMW. \$7,940.

Harvard University Department of Organismic and Evolutionary Biology Departmental Student Research Grant. Jan 1, 1997. Sole PI: DMW. \$3,500.

NIH Genetics Training Grant GM07620. PI: Nancy Kleckner. Sept 1, 1992 – Aug 31, 1997.

c. Proposals Submitted

NSF Division of Environmental Biology, Evolutionary Genetics Cluster. *Collaborative Research: Experimental Test of Life History Effects on Fixation Probabilities*. DMW Co-PI with Christina Burch, University of North Carolina. Submitted August 2, 2012. \$566,535 D&IC to Brown. Pending.

NSF Division of Environmental Biology, Evolutionary Genetics Cluster. *Developing and Testing a Novel Geometric Model of Protein Evolution*. Submitted July 9, 2009. Sole PI: DMW. \$427,551. Declined.

NSF Division of Biology, Population and Evolutionary Processes Cluster. *The Genetics of Adaptation: Inferring Shared Pleiotropy from Mutational Epistasis in Theory and in Two Experimental Systems*. Submitted July 9, 2008. Sole PI: DMW. \$597,529. Declined.

Brown University SEED Proposal. *Understanding Bacterial Survival to Enhance Antibiotics Development*. Submitted December 4, 2007. Co-PI: DMW. \$25,000 to DMW. Declined.

NSF Division of Mathematical Sciences, Mathematical Biology Cluster. *The Combinatorics of Molecular Evolution*. Submitted Oct 1, 2007. Sole PI: DMW. \$361,396. Declined.

Arnold and Mabel Beckman Foundation, Beckman Young Investigator Proposal. *The Combinatoric, Mechanistic Dissection of Taxol Resistance Evolution*. Submitted September 27, 2007. Sole PI: DMW. Declined.

NSF Emerging Frontiers in Theoretical Biology. *Epistasis, Evolutionary Trajectories and the Permutahedron*. Submitted July 3, 2007. Sole PI: DMW. \$366,649. Declined.

NSF Frontiers in Integrative Biology. *FIBR: How Do Microevolutionary Processes Determine the Organization of Genetic and Phenotypic Diversity of Bacteria in Space and Time?* Submitted February 16, 2007. Co-PI: DMW. PI: Martin Polz (MIT). \$293,641 to Brown. Declined.

David and Lucille Packard Fellowship for Science and Engineering. Submitted February 6, 2007. Sole PI: DMW. Declined.

NSF Division of Biology, Population and Evolutionary Processes Cluster. *The Systems Biology of β -lactamase*. Submitted July 9, 2006. Sole PI: DMW. \$454,676. Declined.

7. Service

a. To the University

- 2012 – 2013 Plant Evolutionary Biology Faculty Search Committee
- 2011 – Computational Biology Ph.D. Admissions Committee
- 2010 – First-Year, Sophomore Advisor
- 2010 – Ecology and Evolutionary Biology Undergraduate Curriculum Committee
- 2010 Brown University Career Development Center Panelist, *Finding the Right Postdoc*. August 30, 2010
- 2009 – 2010 Computational Biology Concentration Advisor
- 2009 – Molecular, Cellular Biology and Biochemistry graduate trainer.
- 2009 Sheridan Center for Teaching and Learning Panelist, *Preparing for Your First Year as a Faculty Member*.
- 2009 – Faculty Review Board, The Triple Helix Science and Society Review (an international undergraduate-level journal of science, society, and law).
- 2008 – 2010 Computational Biology Ph.D. Admissions Committee
- 2008 – 2009 Center for Computational Molecular Biology Faculty Search Committee.
- 2007 – 2008 Center for Computational Molecular Biology Faculty Search Committee.
- 2007 – Center for Computational Molecular Biology Executive Committee.

b. To the Profession

Manuscripts reviewed for:

American Naturalist	Journal of Statistical Mechanics
Aquatic Microbial Ecology	Journal of Statistical Physics
Biochemical Journal	Journal of Theoretical Biology
BioEssays	Microbiology and Molecular Biology Letters
Bioinformatics	Molecular Biology and Evolution
Biology Letters	Molecular Ecology
BioSystems	Nature
BMC Evolutionary Biology	Nature Genetics
BMC Genomics	Nature reviews Molecular Cell Biology
Chaos Journal	Nature Structural Biology
Current Biology	Philosophical Transactions of the Royal Society, B
Evolution	PLoS Computational Biology
FEMS Yeast Research	PLoS Genetics
Genes, Genomes and Genetics	PLoS One
Genetics	PLoS Pathogens
Genome Biology	Proceedings of the National Academy of Sciences, USA
ISME Journal	
Journal of Computational Biology	
Journal of Molecular Evolution	

Proceedings of the Royal Society, B
Science
Statistica Sinica

Theoretical Population Biology
Trends in Ecology and Evolution
Trends in Genetics

Guest Associate Editor for:

PLoS Computational Biology
Proceedings of the National Academy of Science, USA

Ad hoc Grant Reviewer:

Canadian Foundation for Innovation (CFI)
National Sciences and Engineering Research Council of Canada (NSERC)
Netherlands Organization for Scientific Research (NWO)
NSF Population Biology cluster, Division of Environmental Biology
NSF Cellular Systems Cluster, Molecular and Cellular Biosciences
NSF Genes and Genomes Cluster, Molecular and Cellular Biosciences
Swiss National Science Foundation (SNSF)
John Templeton Foundation
University of Houston Grants to Advance Research (GEAR)
US Army Research Office (ARO)

Panel Member for:

NSF Evolutionary Processes cluster, Division of Environmental Biology

Member:

Faculty of 1000, Evolutionary & Comparative Genetics section in Genomics & Genetics

Invited Workshops

National Evolutionary Synthesis Center, Durham, NC. October 18 – 21, 2011. *Modeling protein structural and energetic constraints on sequence evolution.*

University of California, Santa Barbara Kavli Institute for Theoretical Physics, Goleta, CA. January 4 – January 21, February 14 – 26, 2011. *Microbial and Viral Evolution.*

Pennsylvania State University, Center for Infectious Disease Dynamics, State College, PA. July 17, 2008. *Virus adaptation on multi-host fitness landscapes.*

Political Lobbying

Coalition for Nation Science Funding, 16th Annual Capitol Hill Exhibition, Washington, DC April 14, 2010.

c. *To the Community*

2012	Mentoring one student from Mount Saint Charles Academy, Woonsocket, RI
2011	Mentored one Providence High School teacher in the lab
2010	Mentored two Providence Public School teachers in the lab
2009	Mentored two Providence Public High School students in the lab
2008	Mentored three Providence Public High School students in the lab

8. Academic Honors

2011 Brown University Center for Computational Molecular Biology Sabbatical Seed Award

2010 Brown University Center for Computational Molecular Biology Travel Award

2009 Brown University Center for Computational Molecular Biology Seed Award

2008, 2009 Brown University NSF/EPSCoR Proteomics Instrumentation Use Award

2008 Brown University Center for Computational Molecular Biology Teaching Award

2008 Brown University Salomon Faculty Research Award.

2007 Brown University Center for Computational Molecular Biology Scholarship Innovator Award.

9. Teaching

Spring 2012 BIOL 1430: "Computational Theory of Molecular Evolution," Brown University. Enrollment: 36.
 BIOL 1960: "Directed Research/Independent Study," Brown University. Enrollment: 6.
 BIOL 2980: "Graduate Independent Study," Brown University. Enrollment: 1.

Fall 2011 BIOL 0380: "Ecology and Evolution of Infectious Disease," Brown University. Enrollment: 24.
 BIOL 1950: "Directed Research/Independent Study," Brown University. Enrollment: 4.
 BIOL 2980: "Graduate Independent Study," Brown University. Enrollment: 1.

Spring 2011 BIOL 1960: "Directed Research/Independent Study," Brown University. Enrollment: 3.

Fall 2010 BIOL 0380: "Ecology and Evolution of Infectious Disease," Brown University. Enrollment: 23.
 BIOL 1950: "Directed Research/Independent Study," Brown University. Enrollment: 1.
 BIOL 2980: "Graduate Independent Study," Brown University. Enrollment: 1.

Spring 2010 BIOL 1960: "Directed Research/Independent Study," Brown University. Enrollment: 1.
 BIOL 2980: "Graduate Independent Study," Brown University. Enrollment: 2.

Fall 2009 BIOL 0380: "Ecology and Evolution of Infectious Disease," Brown University. Enrollment: 21.
 BIOL 1950: "Directed Research/Independent Study," Brown University. Enrollment: 1.
 BIOL 2980: "Graduate Independent Study," Brown University. Enrollment: 2.

Spring 2009 BIOL 1430: "Computational Theory of Molecular Evolution," Brown University. Enrollment: 35.
 BIOL 1960: "Directed Research/Independent Study," Brown University. Enrollment: 1.
 BIOL 2980: "Graduate Independent Study," Brown University. Enrollment: 1.

Fall 2008 BIOL 0380: "Ecology and Evolution of Infectious Disease," Brown University. Enrollment: 23

- BIOL 1950: "Directed Research/Independent Study," Brown University. Enrollment: 3.
- BIOL 2980: "Graduate Independent Study," Brown University. Enrollment: 1.
- Spring 2008 BIO 1960: "Directed Research/Independent Study," Brown University. Enrollment: 6.
- Fall 2007 BIO 1950: "Directed Research/Independent Study," Brown University. Enrollment: 4.
- Minicourse: Genetic Interactions: Principles, Measurement and Interpretation, Department of Integrative Developmental Biology, Harvard Medical School. Participants: 40.
- Spring 2007 BI 0143: "Computational Theory of Molecular Evolution," Brown University. Enrollment: 30.
- Fall 2003 Teaching Fellow, BS50 "Genetics and Genomics (W. Gelbart and W. Fixsen), Harvard University.
- Fall 1997 Teaching Fellow, Bio 153 "Population Genetics" (R.C. Lewontin, D. L. Hartl), Harvard University. Developed and taught independent syllabus on molecular population genetics.
- Spring 1997 Teaching Fellow, BS14 "Genetics" (D. L. Hartl), Harvard University.
- Fall 1992 Teaching Fellow, "Introduction to Organismic and Evolutionary Biology" (K. Liem), Harvard University.
- Fall 1979 Teaching Assistant, "Physics II (E&M)," University of Michigan.

Postdoctoral Fellows

C. Scott Wylie February 2012 –

Jennifer Lynn Knies August 2007 – September 2011. Left Brown to assume faculty appointment at Christopher Newport University effective January, 2012.

Ph.D. Students

Yinghong Lan (Brown EEB) 2012 –

Christopher Graves (Brown EEB) 2011 –

Angus Angermeyer (Brown/MBL, coadvised with Julie Huber) 2009 –

Graduate Committees

Yinghong Lan (Brown EEB) 2012 –

Christopher Graves (Brown EEB) 2011 –

Rebecca Helms (Brown EEB) 2009 –

John Cumbers (Brown MCB) 2009 – 2011

Patrick Flight (Brown EEB) 2007 – 2011

Alan Bergland (Brown EEB) 2007 - 2010

Sarah Pacocha Preheim (MIT, Civil and Environmental Engineering) 2006 - 2009

Robert Haney (Brown EEB) 2007

Martine Zilversmit (Harvard University, Organismal and Evolutionary Biology) 2007

Masters Students

Robin Zelman 2009 – 2010.

Undergraduate Theses Supervised

Jonathan Kang 2012

Christopher Baker 2012
Jeffrey Yuan 2011
Stephanie Spielman 2010
Robin Zelman 2009
Glenn Scheinberg 2008
Rohan Maddamsetti 2008

Funded Undergraduate Summer Research Assistantships Supervised

Lei Ma (Brown Undergraduate Teaching and Research Award) 2012
Alexander Tran (Program in Liberal Medical Education Summer Research Assistantship)
2012
Nicole Damari (Brown Undergraduate Teaching and Research Award) 2011
Ayoosh Pareek (Brown Undergraduate Teaching and Research Award) 2011
Jonathan Kang (Brown Undergraduate Teaching and Research Award) 2011
Matthew Weisberg (Brown Undergraduate Applied Math/Biology Award) 2011
Hans Gao (Program in Liberal Medical Education Summer Research Assistantship) 2011
Jeffrey Yuan (Brown Undergraduate Applied Math/Biology Award) 2010
Stephanie Spielman (Brown Undergraduate Teaching and Research Award) 2009
Max Abrahams (Brown Undergraduate Applied Math/Biology Award) 2009
Jamieson Mellor (EPSCoR SURF Award) 2009
Jacob Johnson (Brown Undergraduate Teaching and Research Award) 2008
Alex Franks (Brown Undergraduate Teaching and Research Award) 2007

Undergraduate Advising

First-Years (5) 2012 – 2013
Sophomores (5) 2012 – 2013
First-Years (4) 2011 – 2012
Sophomores (5) 2011 – 2012
First-Years (5) 2010 - 2011