

## Daniel M. Weinreich Full Publication List

24. **Weinreich, Daniel M.** (2011) *High-throughput identification of genetic interactions in HIV-1*. *Nature Genetics* **43**: 398-400. [[pdf](#)]
23. **Weinreich, Daniel M.** (2010) *Predicting molecular evolutionary trajectories in principle and in practice*. *Encyclopedia of Life Sciences*, John Wiley and Sons, Ltd: Chichester. [[pdf](#)]
22. Watson, Richard A., **Daniel M. Weinreich** and John Wakeley (2010). *Genome Structure and the Benefit of Sex*. *Evolution* **65**:523 – 536. [[pdf](#)]
21. 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. [[pdf](#)]
20. Christin, Pascal-Antoine, **Daniel M. Weinreich** and Guillaume Besnard (2010). *The Causes and Evolutionary Significance of Genetic Convergence*. *Trends in Genetics* **26**:400-405. [[pdf](#)]
19. 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. [[pdf](#)]
18. Brown, Kyle M., Mark A. DePristo, **Daniel M. Weinreich**, and Daniel L. Hartl (2009) *Temporal constraints on the incorporation of regulatory mutants in evolutionary pathways*. *Molecular Biology and Evolution* **26**:2455-2462. doi:10.1093/molbev/msp151 [[pdf](#)]
17. Lozovsky, Elena, Thanat Chookajorn, Kyle Brown, **Daniel M. Weinreich** and Daniel Hartl (2009). *Stepwise acquisition of pyrimethamine resistance in the malaria parasite*. *PNAS* **106**:12015 – 12030. [[pdf](#)]
16. DePristo, Mark A., Daniel L. Hartl and **Daniel M. Weinreich** (2007) *Mutational reversions during adaptive protein evolution*. *Molecular Biology and Evolution* **24**:1608-1610. doi:10.1093/molbev/msm118 [[pdf](#)]
15. Poelwijk, Frank J., Daniel J. Kivet, **Daniel M. Weinreich** and Sander J. Tans (2007) *Empirical fitness landscapes reveal accessible paths*. *Nature* **445**:383-386.

doi:10.1038/nature05451 [[pdf](#)]

14. 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 [[pdf](#)]

13. 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. doi:10.1042/BST0340560 [[pdf](#)]

12. **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. doi:10.1126/science.1123539 [[pdf](#)]

[[Supporting Online Material](#)] [[Research Highlight in Nature Reviews Genetics](#)]

11. 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.

doi:10.1073/pnas.0503074102 [[pdf](#)]

\*These authors contributed equally to this work.

10. **Weinreich, Daniel M.** (2005). *The rank ordering of genotypic fitness values predicts genetic constraint on natural selection on landscapes lacking sign epistasis*. *Genetics* **171**: 1397-1405. doi:10.1534/genetics.104.036830

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9. 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**:678-687. doi:10.1038/nrg1672

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8. **Weinreich, Daniel M.**, Richard A. Watson and Lin Chao (2005).

*Perspectives: Sign epistasis and constraint on evolutionary trajectories*. (Cover article) *Evolution* **59**:1165-1174. doi:10.1111/j.0014-3820.2005.tb01768.x [[pdf](#)]

7. **Weinreich, Daniel M.** and Lin Chao (2005). *Rapid evolutionary escape by*

*large populations from local peaks is likely in nature.* Evolution: **59**:1175-1182. doi:10.1111/j.0014-3820.2005.tb01769.x [[pdf](#)] [[News and Commentary in Heredity](#)]

6. 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. [[pdf](#)]

5. 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**: 473 Suppl.

4. 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. doi:10.1016/S0378-1119(00)00483-2 [[pdf](#)]

3. **Weinreich, Daniel M.** (2001). *The rates of molecular evolution in rodent and primate mitochondrial DNA.* J. Molecular Evolution **52**: 40-50. DOI: 10.1007/s002390010132 [[pdf](#)]

2. **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. [[pdf](#)]

1. 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. [[pdf](#)]