Curriculum vitæ

Magnus Nordborg

July 3, 2009

Education

1985–1986 Swedish Defense Institute of Language / Uppsala University. Subjects: Russian language, Soviet & Eastern European Studies.

1986–1989 B.Sc., Lund University. Majors: Biology and Mathematics. Advisor: B. O. Bengtsson.

1989–1994 Ph.D., Department of Biological Sciences, Stanford University. Advisor: M. W. Feldman.

1994–1997 Research Associate, Department of Ecology & Evolution, University of Chicago. Advisors: J. Bergelson, B. Charlesworth & D. Charlesworth.

Current and Former Positions

1997–2000 Research Assistant Professor ("forskarassistent"), Department of Genetics, Lund University.

2000–2004 Assistant Professor, Molecular & Computational Biology, University of Southern California.

2004– Associate Professor (tenured), Molecular & Computational Biology, University of Southern California.

2009– Scientific Director, Gregor Mendel Institute, Vienna.

Honorary Appointments

1994 Visiting Research Scholar, ICAPB, University of Edinburgh. Hosts: W. G. Hill & N. B. Barton.

1994–1997 Associate Member, Committee on Genetics, University of Chicago.

1998 Long-Stay Participant, Isaac Newton Institute for Mathematical Sciences Programme, "Biomolecular Function and Evolution in the Context of the Genome Project", Cambridge.

Awards & Honors

1989–1994 Fulbright Grantee.

1989–1991 Fellowship, Royal Swedish Academy of Sciences.

1994–1995 Postdoctoral award, Sweden-America Foundation.

2003–2005 Alfred P. Sloan Research Fellow.

Research Grants

Past support (last five years)

2003–2008 "Implications of haplotype structure in the human genome", NIH 1 P50 HG002790-01A1, total amount $18,718,929 (Investigator, minor fraction of budget [PI: Waterman, USC]).

Current support

2004–2009 "BE-GenEn: Genomics of Adaptation to the Biotic and Abiotic Environment in *Aquilegia*" NSF MCB-0412727, total amount $1,666,673 (Co-PI, minor fraction of budget [PI: Hodges, UCSB]).

2005–2009 "The pattern of polymorphism in *Arabidopsis thaliana*", NSF DEB-0519961, total amount $2,074,500 (PI).

2006–2011 "Genome-wide association mapping in *Arabidopsis thaliana*", NIH 1 R01 GM073822-01A1, total amount $2,758,734 (Investigator, minor fraction of budget [PI: Borevitz, U. Chicago]).

2007–2010 "Simulation algorithms for genome-wide data and application to admixed data", NIH 1 R01 HG004049, total amount $934,836 (Investigator, minor fraction of budget [PI: Wall, UCSF]).

2008–2011 "Collaborative Research: An Arabidopsis Polymorphism Database", NSF DEB-0723935, total amount $635,143 (PI).

2008-2013 "The molecular basis of local adaptation in *Arabidopsis thaliana*", NIH 1 R01 GM083068-01A1, total amount $2,470,000 (PI [Transferred to Bergelson, U. Chicago]).

2008-2011 "Statistical Methods for Relating Sequence Data to Phenotype", NIH 1 R01 MH084678-01, total amount $1,219,583 (Investigator, minor fraction of budget [PI: Marjoram, USC]).

Invited Presentations (last five years)

2005

1. Department of Plant Sciences and IGERT Program in Genomics (visitor), University of Arizona.
2. Department of Ecology and Evolution (departmental speaker), University of Chicago.
3. Genome Center (guest speaker), UC Davis.
4. Department of Human Genetics (guest speaker), UCLA.
5. Workshop on the Design, Technology, and Analysis for Genomewide Association Studies (invited speaker), Keck School of Medicine, USC.
6. Department of Plant Biology (departmental speaker), UC Davis.

7. Department of Genetics (departmental speaker), Rutgers University.
8. Wenner-Gren Foundation and Royal Swedish Academy of Sciences symposium "Phenotypic Diversity and Evolution" (invited speaker), Kristineberg, Sweden.
9. American Genetic Association symposium "Plant Evolution: Genes and Phenotypes" (joint with 16th International Conference on Arabidopsis Research; invited speaker), Madison.

2006

1. Department of Ecology and Evolutionary Biology (departmental speaker), UCLA.
2. Department of Biological Statistics and Computational Biology (departmental speaker), Cornell University.
3. Radcliffe Workshop on the Ecological Genetics of *Arabidopsis thalina* (invited speaker), Radcliffe Institute for Advanced Study.
4. 3rd European Plant Science Organisation Conference "Plant Dynamics: from Molecules to Ecosystems" (session organizer), Visegrád, Hungary.
5. Symposium on "Plant Evolution and Domestication" (invited speaker), Max Planck Institute for Plant Breeding Research, Cologne, Germany.
6. Sainsbury Laboratory (guest speaker), John Innes Centre, Norwich, England.
7. Department of Horticulture and Landscape Architecture (departmental speaker), Purdue University.
8. Plant & Microbial Biology Graduate Programme (invited speaker), University of Toronto.

2007

1. Gordon Research Conference on Quantitative Genetics and Genomics (invited speaker), Ventura.
2. NESCent Catalysis Meeting "Genomic Approaches to the Study of Adaptive Radiation in African Cichlids" (invited speaker), Durham, North Carolina.
3. Ceres, Inc. (invited speaker), Thousand Oaks, California.
4. CSHL "Biology of Genomes" (speaker), Cold Spring Harbor, New York.
5. Society for Molecular Biology and Evolution Annual Meeting (invited speaker), Halifax, Nova Scotia, Canada.
6. ISMB/EECB 2007 (invited speaker, PLoS Track), Vienna, Austria.
7. Lausanne Genomics Days 07 (invited speaker), Lausanne, Switzerland.
8. Banbury Meeting "From Statistics to Genes: Figuring out the Molecular Basis of Complex Traits" (invited speaker), CSHL, New York.
9. John Innes Centre / University of East Anglia (ELSA lecturer), Norwich, England

2008

1. Gregor Mendel Institute (invited speaker), Vienna, Austria.
2. Sokendai symposium (invited speaker), Hayama, Japan.
3. Department of Biology (departmental speaker), Stanford University, Stanford, California.
4. Kavli Institute for Theoretical Physics (short-term visitor), Santa Barbara, California.

2009

1. Keystone Symposium "Plant Sensing, Response & Adaptation to the Environment" (invited speaker), Big Sky, Montana.
2. FEBS meeting "Adaptation Potential in Plants" (invited speaker), Vienna.
3. 20th International Conference on *Arabidopsis* Research (invited speaker and session organizer), Edinburgh, Scotland.

Teaching Experience

At Lund University

1997 Introductory Biology (lecturer).
1997 Molecular Evolution (lecturer).
1997–1999 Population Genetics (lecturer).
1998 Graduate course in genetic analysis (lecturer & organizer).

At University of Southern California

BISC 313 "Population Genetics & Evolution" (co-taught class, 2002–2003).
BISC 325 "Genetics" (co-taught class, 2004, 2006, 2008).
BISC 403 "Advanced Molecular Genetics" (co-taught class, 2000–2002).
BISC 499 "Population Genetics & Molecular Evolution" (co-taught class, 2004, 2008).
BISC 542 "Seminar in Molecular Biology" (co-taught class, 2001–2003).
BISC 502a "Molecular Genetics & Biochemistry" (lecturer, 2004).
BISC 502b "Molecular Genetics & Biochemistry" (lecturer, 2001–2002, 2006–2007).
BISC 505 "Genomics & Molecular Genetics" (lecturer, 2001).
BISC 510b Evolutionary Biology (lecturer, 2003–2007).
BISC 549 Seminar in Integrative & Evolutionary Biology (lecturer, 2003–2007; organizer 2006).
MATH 577b "Computational Molecular Biology Laboratory" (lecturer, 2001–2002).

Advisory Experience

Former doctoral students

1. Jenny Hagenblad, Lund University (1998–2002), Assistant Professor, Uppsala University.
2. Badri Padhukasahasram, USC (2002–2006), Postdoc, Cornell University.
3. Chunlao Tang (2001–2006), Postdoc, CSHL.
4. Sung Kim (2002–2006), Postdoc, UCSF.
5. Keyan Zhao (2003–2007), Postdoc, Cornell University.
6. Tina Hu (2002–2008), Postdoc, USC.

Current doctoral students

1. Liz Cooper (2005–).
2. Yu Huang (2007–).
3. Bjarni Vilhjálmsson (2007–).
4. Dazhe Meng (2008–).
5. Pei Zhang (2008–).

Former postdocs

1. Hideki Innan (2001–2002), Associate Professor, Graduate University for Advanced Studies, Hayama.
2. Yoko Ishino (2002–2003), Associate Professor, Hiroshima University.
3. Honggang Zheng (2001–2004), Group Leader, Cargill Specialty Canola Oils.
4. Noah Rosenberg (2001–2005), Assistant Professor, University of Michigan.
5. María José Aranzana (2002–2005), Postdoc, CSIC-IRTA, Barcelona.
6. Christopher Toomajian (2003–2008), Assistant Professor, Kansas State University.

Current postdocs

1. Susanna Atwell (2006–).
2. Glenda Willems (2007–).
3. Alex Platt (2008–).
4. Tina Hu (2009–).
5. Tom Turner (2009–).

Service

Journals

- Associate Editor, *Plant Cell* (2006–2008).
- Associate Editor, *Genetics* (2004–2009).
- Associate Editor, *J. Mol. Evol.* (2001–2007).
- Regular reviewer for a number of journals, including *American Journal of Human Genetics, Current Biology, Journal of Molecular Evolution, Genetics, Genetical Research, Genome Research, Molecular Biology & Evolution, Molecular Ecology, Nature, Nature Genetics, Plant Cell, Plant Physiology, PNAS, PLoS Biology, PLoS Genetics, Science, Theoretical Population Biology*, and *TIG*.

Funding agencies

- USDA-NRI Panel Member (2004).
- Temporary Member, NIH Genome Study Section (2004).
- NSF Panel Member (2003).
- External reviewer of proposals for a number of agencies, including NSF and the Wellcome Trust.
- NSF Plant Cyber-infrastructure Workshop (2005).

Other

- Advisory Board Member, "Molecular and Functional Diversity of the Maize Genome", John Doebley, PI (2004–).
- External examiner for Ph. D. Carsten Wiuf, Århus University (1998), M. Sc. Tobias Mourier, Copenhagen University (1998), and Ph. D. David Serre, Max Planck Institute for Evolutionary Anthropology (2004).
- Member of the external reviewing committee, Department of Evolutionary Genetics, Max Planck Institute for Evolutionary Anthropology (2003).
- NRC workshop on the National Plant Genome Initiative, Washington, DC (2007).
- NSF workshop on the future of Arabidopsis research, Washington, DC (2008).
- Various committees at USC, including hiring, admissions, and the Provost's advisory group on bioinformatics.

Publications

Research articles

[1] Yan Ding, Garrett Larson, Guillermo Rivas, Cathryn Lundberg, Louis Geller, Ching Ouyang, Jeffrey Weitzel, John Archambeau, Jerry Slater, Mary B Daly, Al B Benson, John M Kirkwood, Peter J O'Dwyer, Rebecca Sutphen, James A Stewart, David Johnson, Magnus Nordborg, and Theodore G Krontiris. Strong signature of natural selection within an *FHIT* intron implicated in prostate cancer risk. *PLoS ONE*, 3(10):e3533, Jan 2008.

[2] John Paul Foxe, Vaqaar un Nisa Dar, Honggang Zheng, Magnus Nordborg, Brandon S. Gaut, and Stephen I. Wright. Selection on amino acid substitutions in *Arabidopsis*. *Mol. Biol. Evol.*, 25:1375–1383, 2008.

[3] Badri Padhukasahasram, Paul Marjoram, Jeffrey D Wall, Carlos D Bustamante, and Magnus Nordborg. Exploring population genetic models with recombination using efficient forward-time simulations. *Genetics*, 178:2417–27, 2008.

[4] Ryo Fujimoto, Yuki Kinoshita, Akira Kawabe, Tetsu Kinoshita, Kazuya Takashima, Magnus Nordborg, Mikhail E Nasrallah, Kentaro K Shimizu, Hiroshi Kudoh, and Tetsuji Kakutani. Evolution and control of imprinted *FWA* genes in the genus *Arabidopsis*. *PLoS Genet*, 4:e1000048, 2008.

[5] Keyan Zhao, Magnus Nordborg, and Paul Marjoram. Genome-wide association mapping using mixed-models: application to GAW15 Problem 3. *BMC Proceedings*, 1 Suppl 1:S164, 2007.

[6] Sung Kim, Vincent Plagnol, Tina T. Hu, Christopher Toomajian, Richard M. Clark, Stephan Ossowski, Joseph R. Ecker, Detlef Weigel, and Magnus Nordborg. Recombination and linkage disequilibrium in *Arabidopsis thaliana*. *Nature Genet.*, 39:1151–1155, 2007.

[7] Chunlao Tang, Christopher Toomajian, Susan Sherman-Broyles, Vincent Plagnol, Ya-Long Guo, Tina T. Hu, Richard M. Clark, June B. Nasrallah, Detlef Weigel, and Magnus Nordborg. The evolution of selfing in *Arabidopsis thaliana*. *Science*, 317:1070–1072, 2007.

[8] Richard M. Clark, Gabriele Schweikert, Stephan Ossowski, Georg Zeller, Christopher Toomajian, Paul Shinn, Norman Warthmann, Tina T. Hu, Glenn Fu, David A. Hinds, Huaming Chen, Kelly A. Frazer, Daniel H. Huson, Bernhard Schölkopf, Magnus Nordborg, Gunnar Rätsch, Joseph R. Ecker, and Detlef Weigel. Common sequence polymorphisms shaping genetic diversity in *Arabidopsis thaliana*. *Science*, 317:338–342, 2007.

[9] Justin O. Borevitz, Samuel P. Hazen, Todd P. Michael, Geoffrey P. Morris, Ivan R. Baxter, Tina T. Hu, Huaming Chen, Jonathan D. Werner, Magnus Nordborg, David E. Salt, Steve A. Kay, Joanne Chory, Detlef Weigel, Jonathan D. Jones, and Joseph R. Ecker. Genome-wide patterns of single-feature polymorphism in *Arabidopsis thaliana*. *Proc. Natl. Acad. Sci. USA*, 104:12057–12062, 2007.

[10] Nathan B. Sutter, Carlos D. Bustamante, Kevin Chase, Melissa M. Gray, Keyan Zhao, Lan Zhu, Badri Padhukasahasram, Eric Karlins, Sean Davis, Paul G. Jones, Pascale Quignon, Gary S. Johnson, Heidi G. Parker, Neale Fretwell, Dana S. Mosher, Dennis F. Lawler, Ebenezer Satyaraj, Magnus Nordborg, K. Gordon Lark, Robert K. Wayne, and Elaine A. Ostrander. A single *IGF1* allele is a major determinant of small size in dogs. *Science*, 316, 112–115, 2007.

[11] Keyan Zhao, María José Aranzana, Sung Kim, Clare Lister, Chikako Shindo, Chunlao Tang, Christopher Toomajian, Honggang Zheng, Caroline Dean, Paul Marjoram, and Magnus Nordborg. An *Arabidopsis* example of association mapping in structured samples. *PLoS Genet.*, 3:e4, 2007.

[12] Badri Padhukasahasram, Jeffrey D. Wall, Paul Marjoram, and Magnus Nordborg. Estimating recombination rates from Single-Nucleotide Polymorphisms using summary statistics. *Genetics*, 174:1517–1528, 2006.

[13] Chikako Shindo, Clare Lister, Pedro Crevillen, Magnus Nordborg, and Caroline Dean. Variation in the epigenetic silencing of *FLC* contributes to natural variation in *Arabidopsis* vernalization response. *Genes & Development*, 20:3079–3083, 2006.

[14] Noah Rosenberg and Magnus Nordborg. A general population-genetic model for the production by population structure of spurious genotype-phenotype associations in discrete, admixed, or spatially distributed populations. *Genetics*, 173:1665–1678, 2006.

[15] Mattias Jakobsson, Jenny Hagenblad, Simon Tavaré, Torbjörn Säll, Christer Halldén, Christina Lind-Halldén, and Magnus Nordborg. A unique recent origin of the allotetraploid species *Arabidopsis suecica*: Evidence from nuclear DNA markers. *Mol. Biol. Evol.*, 23:1217–1231, 2006.

[16] Christopher Toomajian, Tina T. Hu, María José Aranzana, Clare Lister, Chunlao Tang, Honggang Zheng, Peter Calabrese, Caroline Dean, and Magnus Nordborg. A nonparametric test reveals selection for rapid flowering in the *Arabidopsis* genome. *PLoS Biol.*, 4(5):e137, 2006.

[17] Sung Kim, Keyan Zhao, Rong Jiang, John Molitor, Justin O Borevitz, Magnus Nordborg, and Paul Marjoram. Association mapping with single-feature polymorphisms. *Genetics*, 173(2):1125–33, 2006.

[18] Vincent Plagnol, Badri Padhukasahasram, Jeffrey D. Wall, Paul Marjoram, and Magnus Nordborg. Relative influences of crossing-over and gene conversion on the pattern of linkage disequilibrium in *Arabidopsis thaliana*. *Genetics*, 172:2441–2448, 2006.

[19] Erica G. Bakker, Eli A. Stahl, Christopher Toomajian, M. Nordborg, M. Kreitman, and J. Bergelson. Distribution of genetic variation within and among local populations of *Arabidopsis thaliana* over its species range. *Molecular Ecology*, 15:1405–1418, 2006.

[20] María José Aranzana, Sung Kim, Keyan Zhao, Erica Bakker, Matthew Horton, Katrin Jakob, Clare Lister, John Molitor, Chikako Shindo, Chunlao Tang, Christopher Toomajian, Brian Traw, Honggang Zheng, Joy Bergelson, Caroline Dean, Paul Marjoram, and Magnus Nordborg. Genome-wide association mapping in *Arabidopsis* identifies previously known flowering time and pathogen resistance genes. *PLoS Genet.*, 1:e60, 2005.

[21] Chikako Shindo, María José Aranzana, Clare Lister, Catherine Baxter, Colin Nicholls, Magnus Nordborg, and Caroline Dean. Role of *FRIGIDA* and *FLC* in determining variation in flowering time of *Arabidopsis thaliana*. *Plant Physiol.*, 138:1163–1173, 2005.

[22] Magnus Nordborg, Tina T. Hu, Yoko Ishino, Jinal Jhaveri, Christopher Toomajian, Honggang Zheng, Erica Bakker, Peter Calabrese, Jean Gladstone, Rana Goyal, Mattias Jakobsson, Sung Kim, Yuri Morozov, Badri Padhukasahasram, Vincent Plagnol, Noah A. Rosenberg, Chitiksha Shah, Jeffrey Wall, Jue Wang, Keyan Zhao, Theodore Kalbfleisch, Vincent Schultz, Martin Kreitman, and Joy Bergelson. The pattern of polymorphism in *Arabidopsis thaliana*. *PLoS Biol.*, 3:e196, 2005.

[23] Per Sjödin, Ingemar Kaj, Steven Krone, Martin Lascoux, and Magnus Nordborg. On the meaning and existence of an effective population size. *Genetics*, 169:1061–1070, 2005.

[24] Ming Li, Magnus Nordborg, and Lei M. Li. Adjust quality scores from alignment and improve sequencing accuracy. *Nucleic Acids Res.*, 32:5183–5191, 2004.

[25] Carsten Wiuf, Keyan Zhao, Hideki Innan, and Magnus Nordborg. The probability and chromosomal extent of trans-specific polymorphism. *Genetics*, 168:2363–2372, 2004.

[26] Jenny Hagenblad, Chunlao Tang, John Molitor, Jonathan Werner, Keyan Zhao, Honggang Zheng, Paul Marjoram, Detlef Weigel, and Magnus Nordborg. Haplotype structure and phenotypic associations in the chromosomal regions surrounding two *Arabidopsis thaliana* flowering time loci. *Genetics*, 168:1627–1638, 2004.

[27] Badri Padhukasahasram, Paul Marjoram, and Magnus Nordborg. Estimating the rate of gene conversion on human chromosome 21. *Am. J. Hum. Genet.*, 75:386–397, 2004.

[28] Hideki Innan and Magnus Nordborg. The extent of linkage disequilibrium and haplotype sharing around a polymorphic site. *Genetics*, 165:437–444, 2003.

[29] Hideki Innan, Badri Padhukasahasram, and Magnus Nordborg. The pattern of polymorphism on human chromosome 21. *Genome Res.*, 13:1158–1168, 2003.

[30] Magnus Nordborg and Hideki Innan. The genealogy of sequences containing multiple sites subject to strong selection in a subdivided population. *Genetics*, 163:1201–1213, 2003.

[31] Kui Zhang, Peter Calabrese, Magnus Nordborg, and Fengzhu Sun. Haplotype block structure and its applications to association studies: Power and study designs. *Am. J. Hum. Genet.*, 71:1386–1394, 2002.

[32] Hideki Innan and Magnus Nordborg. Recombination or mutational hotspots in human mtDNA? *Mol. Biol. Evol.*, 19:1122–1127, 2002.

[33] Jenny Hagenblad and Magnus Nordborg. Sequence variation and haplotype structure surrounding the flowering time locus *FRI* in *Arabidopsis thaliana*. *Genetics*, 161:289–298, 2002.

[34] Magnus Nordborg, Justin O. Borevitz, Joy Bergelson, Charles C. Berry, Joanne Chory, Jenny Hagenblad, Martin Kreitman, Julin N. Maloof, Tina Noyes, Peter J. Oefner, Eli A. Stahl, and Detlef Weigel. The extent of linkage disequilibrium in *Arabidopsis thaliana*. *Nature Genet.*, 30:190–193, 2002.

[35] Peter Donnelly, Magnus Nordborg, and Paul Joyce. Likelihoods and simulation methods for a class of non-neutral population genetics models. *Genetics*, 159:853–867, 2001.

[36] Magnus Nordborg. Linkage disequilibrium, gene trees, and selfing: An ancestral recombination graph with partial self-fertilization. *Genetics*, 154:923–929, 2000.

[37] Magnus Nordborg. The coalescent with partial selfing and balancing selection: An application of structured coalescent processes. In Francoise Seillier-Moiseiwitsch, editor, *Statistics in Molecular Biology and Genetics*, volume 33 of *IMS Lecture Notes-Monograph Series*, pages 56–76. Institute of Mathematical Statistics, Hayward, California, 1999.

[38] Magnus Nordborg and Joy Bergelson. The effect of seed and rosette cold treatment on germination and flowering time in some *Arabidopsis thaliana* (Brassicaceae) ecotypes. *Am. J. Bot.*, 86(4):470–475, 1999.

[39] Magnus Nordborg. On the probability of Neanderthal ancestry. *Am. J. Hum. Genet.*, 63:1237–1240, 1998.

[40] Peter Andolfatto and Magnus Nordborg. The effect of gene conversion on intralocus associations. *Genetics*, 148:1397–1399, 1998.

[41] Brian Charlesworth, Magnus Nordborg, and Deborah Charlesworth. The effects of local selection, balanced polymorphism and background selection on equilibrium patterns of genetic diversity in subdivided populations. *Genet. Res., Camb.*, 70:155–174, 1997.

[42] Magnus Nordborg. Structured coalescent processes on different time scales. *Genetics*, 146:1501–1514, 1997.

[43] Magnus Nordborg and Peter Donnelly. The coalescent process with selfing. *Genetics*, 146:1185–1195, 1997.

[44] Magnus Nordborg, Brian Charlesworth, and Deborah Charlesworth. The effect of recombination on background selection. *Genet. Res., Camb.*, 67:159–174, 1996.

[45] Magnus Nordborg, Brian Charlesworth, and Deborah Charlesworth. Increased levels of polymorphism surrounding selectively maintained sites in highly selfing species. *Proc. R. Soc. Lond.* B, 263:1033–1039, 1996.

[46] Magnus Nordborg and Virginia Walbot. Estimating allelic diversity generated by excision of different transposon types. *Theor. Appl. Genet.*, 90:771–775, 1995.

[47] Magnus Nordborg, Ian R. Franklin, and Marcus W. Feldman. Effects of *cis-trans* viability selection on some two-locus models. *Theor. Pop. Biol.*, 47:365–392, 1995.

[48] Magnus Nordborg. A model of gender modification in gynodioecious plants. *Proc. R. Soc. Lond.* B, 257:149–154, 1994.

[49] Magnus Nordborg. Female infanticide and human sex ratio evolution. *J. theor. Biol.*, 158:195–198, 1992.

[50] Magnus Nordborg. Sex-ratio selection with general migration schemes: Fisher's result does hold. *Evolution*, 45:1289–1293, 1991.

Reviews and book chapters

[1] Magnus Nordborg and Detlef Weigel. Next-generation genetics in plants. *Nature*, 456:720–723, 2008.

[2] Alan M. Jones, Joanne Chory, Jeffery L. Dangl, Mark Estelle, Steven E. Jacobsen, Elliot M. Meyerowitz, Magnus Nordborg, and Detlef Weigel. The impact of Arabidopsis on human health: Diversifying our portfolio. *Cell*, 133:939–943, 2008.

[3] Detlef Weigel and Magnus Nordborg. Natural variation in Arabidopsis. How do we find the causal genes? *Plant Physiol.*, 138:567–568, 2005.

[4] Magnus Nordborg. Were Neanderthals and anatomically modern humans different species? In Mark A. Jobling, Matthew E. Hurles, and Chris Tyler-Smith, editors, *Human Evolutionary Genetics*, page 264. Garland Science, Abingdon, UK, 2004.

[5] Norman Arnheim, Peter Calabrese, and Magnus Nordborg. Hot and cold spots of recombination in the human genome: The reason we should find them and how this can be achieved. *Amer. J. Hum. Genet.*, 73:5–16, 2003.

[6] Justin O. Borevitz and Magnus Nordborg. The impact of genomics on the study of natural variation in Arabidopsis. *Plant Physiol.*, 132:718–725, 2003.

[7] Noah A. Rosenberg and Magnus Nordborg. Genealogical trees, coalescent theory, and the analysis of genetic polymorphisms. *Nature Rev. Genet.*, 3:380–390, 2002.

[8] Magnus Nordborg and Hideki Innan. Molecular population genetics. *Curr. Opin. Plant Biol.*, 5:69–73, 2002.

[9] Magnus Nordborg and Stephen M. Krone. Separation of time scales and convergence to the coalescent in structured populations. In M. Slatkin and M. Veuille, editors, *Modern Developments in Theoretical Population Genetics: The Legacy of Gustave Malécot*, pages 194–232. Oxford University Press, Oxford, 2002.

[10] Magnus Nordborg and Simon Tavaré. Linkage disequilibrium: What history has to tell us. *Trends Genet.*, 18:83–90, 2002.

[11] Magnus Nordborg. Coalescent theory. In D. J. Balding, M. J. Bishop, and C. Cannings, editors, *Handbook of Statistical Genetics*, pages 179–212. John Wiley & Sons, Inc., Chichester, U.K., 2001.

[12] Magnus Nordborg. On detecting ancient admixture. In Peter Donnelly and Robert A. Foley, editors, *Genes, Fossils, and Behaviour: An Integrated Approach to Human Evolution*, NATO Science Series, pages 123–136, Amsterdam, 2001. IOS Press.

[13] Magnus Nordborg. Genealogical processes with general types of population structure. In *Bulletin of the International Statistical Institute,* 52nd Session, volume LVIII, pages 357–360, Helsinki, 1999.

[14] Magnus Nordborg. *Deterministic Models of Natural Selection*. PhD thesis, Stanford University, 1994.