

JUSTIN O. BOREVITZ

Assistant Professor
Dept Ecology and Evolution
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Professional Preparation

University of California, Santa Cruz	Biochemistry & Molecular Biology	B.S.	1997
University of California, San Diego	Biology	Ph.D.	2002
The Salk Institute for Biological Studies	Genomics		2002-2004

Appointments

2004-present Assistant Professor in Dept. of Ecology & Evolution, University of Chicago
2002-2004 Helen Hay Whitney Postdoctoral Fellow, Genomics, The Salk Institute for Biological Studies

Synergistic Activities

Establishing a Center for Ecological Conservation Genetics
Chicago Center for Urban Ecology
Developed a field project undergraduate course on PrairieEcosystems.org

Developing methods for haplotype identification from high resolution SFP data.
Assisted on the development of BQTL (Bayesian QTL mapping) and used BQTL to perform two-dimensional QTL epistasis scans using permutation thresholds (2001)

American Society of Plant Biologists and American Association for the Advancement of Science (1998-Present)

Collaborators & Other Affiliations

Collaborators

Magnus Nordborg, University of Southern California; Paul Marjoram, University of Southern California; Sebastian Zoellner, University of Michigan; Scott Hodges, University of California-Santa Barbara; Elena Kramer, Harvard University; Jeff Tomkins, Clemson University

Graduate and Postdoctoral Advisors

(Graduate) Joanne Chory Salk Institute for Biological Studies and Howard Hughes Medical Institute
(Postdoctoral) Joseph Ecker Salk Institute for Biological Studies

Thesis Advisor and Postdoctoral-Scholar Sponsor

Dissertation Directed

Graduate Students

Current:

Traci Viinanan	Committee on Evolutionary Biology
Paul Grabowski	Department of Ecology and Evolution

Former:

Andy Cal	Department of Molecular Genetics and Cell Biology
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Postdoctoral fellows (4 total)

Current:

Xu Zhang	Postdoctoral Scholar
Yan Li	Postdoctoral Scholar
Christos Noutsos	Postdoctoral Scholar
Geoff Morris	Postdoctoral Scholar

5 Publications most closely related to this grant

Alexander Platt¹, Matthew Horton^{2**}, Yu S. Huang^{1**}, Yan Li^{2**}, Alison E. Anastasio², Ni Wayan Mulyati², Jon Ågren³, Oliver Bossdorf⁴, Diane Byers⁵, Kathleen Donohue⁶, Megan Dunning², Eric B. Holub⁷, Andrew Hudson⁸, Valerie Le Corre⁹, Olivier Loudet¹⁰, Fabrice Roux¹¹, Norman Warthmann¹², Detlef Weigel¹², Luz Rivero¹³, Randy Scholl¹³, Magnus Nordborg^{1,14}, Joy Bergelson², Justin O. Borevitz² **The Scale of Population Structure in *Arabidopsis thaliana* (in review to PLoS Genetics Aug 15 ,2009)**

Susanna Atwell^{1;L}, Yu Huang^{1;L}, Bjarni J. Vilhjálmsson^{1;L}, Glenda Willems^{1;L}, Matthew Horton², Yan Li², Dazhe Meng¹, Alexander Platt¹, Aaron Tarone¹, Tina T. Hu¹, Rong Jiang¹, N. Wayan Mulyati², Xu Zhang², Muhammad Ali Amer¹, Ivan Baxter³, Benjamin Brachi⁴, Joanne Chory⁵, Caroline Dean⁶, Marilyne Debieu⁷, Juliette de Meaux⁷, Joseph R. Ecker⁵, Nathalie Faure⁴, Joel M. Kniskern², Jonathan D. G. Jones⁸, Todd Michael⁵, Adnane Nemri⁸, Fabrice Roux^{2;4}, David E. Salt⁹, Chunlao Tang¹, Marco Todesco¹¹, M. Brian Traw², Detlef Weigel¹⁰, Paul Marjoram¹¹, Justin Borevitz², Joy Bergelson², Magnus Nordborg **Genome-wide association study of 107 phenotypes in a common set of *Arabidopsis thaliana* inbred lines (in revision at Nature, July 5th)**

Li Y, Roycewicz P, Smith E, Borevitz JO. Genetics of local adaptation in the laboratory: flowering time quantitative trait loci under geographic and seasonal conditions in *Arabidopsis*. PLoS One. 2006 Dec 27;1:e105. PubMed PMID: 17205109;

Werner JD, Borevitz JO, Warthmann N, Trainer GT, Ecker JR, Chory J, Weigel D. Quantitative trait locus mapping and DNA array hybridization identify an FLM deletion as a cause for natural flowering-time variation. Proc Natl Acad Sci U S A. 2005 Feb 15;102(7):2460-5. Epub 2005 Feb 4. PubMed PMID: 15695584; PubMed Central PMCID: PMC548991.

Borevitz JO, Maloof JN, Lutes J, Dabi T, Redfern JL, Trainer GT, Werner JD, Asami T, Berry CC, Weigel D, Chory J. Quantitative trait loci controlling light and hormone response in two accessions of *Arabidopsis thaliana*. Genetics. 2002 Feb;160(2):683-96. PubMed PMID: 11861571; PubMed Central PMCID: PMC1461994.

5 other publications

Zhang X, Borevitz JO. Global Analysis of Allele Specific Expression in *Arabidopsis thaliana*. Genetics. 2009 May 27. [Epub ahead of print] PubMed PMID: 19474198.

Zhang X, Byrnes JK, Gal TS, Li WH, Borevitz JO. Whole genome transcriptome polymorphisms in *Arabidopsis thaliana*. Genome Biol. 2008;9(11):R165. Epub 2008 Nov 24. PubMed PMID: 19025653; PubMed Central PMCID: PMC2614497.

Emerson JJ, Cardoso-Moreira M, Borevitz JO, Long M. Natural selection shapes genome-wide patterns of copy-number polymorphism in *Drosophila melanogaster*. *Science*. 2008 Jun 20;320(5883):1629-31. Epub 2008 Jun 5. PubMed PMID: 18535209.

Zhang X, Shiu SH, Cal A, Borevitz JO. Global analysis of genetic, epigenetic and transcriptional polymorphisms in *Arabidopsis thaliana* using whole genome tiling arrays. *PLoS Genet*. 2008 Mar 21;4(3):e1000032. PMID: 18369451

Borevitz JO, Hazen SP, Michael TP, Morris GP, Baxter IR, Hu TT, Chen H, Werner JD, Nordborg M, Salt DE, Kay SA, Chory J, Weigel D, Jones JD, Ecker JR. Genome-wide patterns of single-feature polymorphism in *Arabidopsis thaliana*. *Proc Natl Acad Sci U S A*. 2007 Jul 17;104(29):12057-62. Epub 2007 Jul 12. PubMed PMID: 17626786; PubMed Central PMCID: PMC1914337.