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Education:

PhD, Plant Biology (Advisor: Professor Micheal Freeling) University of California-Berkeley	2008-Present Berkeley, CA
BA, Biology (Focuses in Genetics and Plant Biology) Cornell University	2004-2008 Ithaca, NY

Peer Reviewed Publications (11):

- Tang H, Woodhouse MR, Cheng F, **Schnable JC**, Pedersen BS, Conant GC, Wang X, Freeling M, Pires JC. (2012) Altered patterns of fractionation and exon deletions in *Brassica rapa* support a two-step model of paleohexaploidy. *Genetics*. DOI: 10.1534/genetics.111.137349
- Schnable JC**, Freeling M, Lyons E. (2012) Genome-wide analysis of syntenic gene deletion in the grasses. *Genome Biology and Evolution*. DOI: 10.1093/gbe/evs009
- Zhang W, Wu Y, **Schnable JC**, Zeng Z, Freeling M, Crawford GE, Jiang J. (2011) High-Resolution Mapping of Open Chromatin in the Rice Genome. *Genome Research*. DOI: 10.1101/gr.131342.111
- Eichten SR,* Swanson-Wagner RA,* **Schnable JC**, Waters AJ, Hermanson PJ, Liu S, Jeh C, Gendler K, Freeling M, Schnable PS, Vaughn MW, Springer NM. (2011) Heritable epigenetic variation among maize inbreds. *PLoS Genetics*. DOI: 10.1371/journal.pgen.1002372
(Selected at an Editors' choice by MaizeGDB January 2012)
- Schnable JC**, Lyons E. (2011) Comparative genomics with maize and other grasses: from genes to genomes. *Maydica*. 56:183-200
- Tang H, Lyons E, Pedersen B, **Schnable JC**, Paterson AH, Freeling M. (2011) Screening synteny blocks in pairwise genome comparisons through integer programming. *BMC Bioinformatics*. DOI: 10.1186/1471-2105-12-102
- Schnable JC**, Pedersen BS, Subramaniam S, Freeling M. (2011) Dose-sensitivity, conserved noncoding sequences and duplicate gene retention through multiple tetraploidies in the grasses. *Frontiers in Plant Science*. DOI: 10.3389/fpls.2011.00002
(A commentary on this article was solicited from JA Birchler and RA Veitia by Frontiers in Plant Science. DOI: 10.3389/fpls.2011.00064)
- Schnable JC**, Freeling M. (2011) Genes identified by visible mutant phenotypes show increased bias towards one of two maize subgenomes. *PLoS One*. DOI: 10.1371/journal.pone.0017855
- Schnable JC**, Springer NM, Freeling M. (2011) Differentiation of the maize subgenomes by genome dominance and both ancient and ongoing gene loss. *Proceedings of the National Academy of Sciences*. DOI: 10.1073/pnas.1101368108
(Selected as an Editors' choice by MaizeGDB May 2011)
- *Woodhouse MR, ***Schnable JC**, Pedersen BS, Lyons E, Lisch D, Subramaniam S, Freeling M. (2010) Following tetraploidy in maize, a short deletion mechanism removed genes preferentially from one of the two homeologs. *PLoS Biology*. DOI: 10.1371/journal.pbio.1000409
(Selected as an Editors' choice by MaizeGDB August 2010; an image related to this manuscript was used for the journal cover; "recommended" by Faculty of 1000)
- The International Brachypodium Initiative. (2010) Genome sequencing and analysis of the model grass *Brachypodium distachyon*. *Nature*. DOI: 10.1038/nature08747
- *authors contributed equally

Talks (5):

Differences between the subgenomes of ancient polyploids. Plant and Animal Genome XX: Polyploidy Session. San Diego, CA. January 2012

Studying the function and regulation of grass genes through comparative genomics. Plant and Animal Genome XX: CSSA Translational Genomics Session. San Diego, CA. January 2012
Tetraploidy and Grass Genome Evolution. Department of Plant Biology. University of Arizona. Tucson, AZ. September 2011
The two different genomes within maize. 53rd Annual Maize Genetics Conference. Pheasant Run, IL. March 2011
The mechanism of fractionating gene loss following whole genome duplications in plants. PMB Intra-Departmental Seminar Series, University of California-Berkeley. March 2010

Poster Presentations (4):

Schnable JC, Turco G, Freeling M. Fractionation mutagenesis: natural promoter bashing in maize. 54th Annual Maize Genetics Conference. Portland, OR March 2012
Schnable JC, Freeling M, Lyons E. Fractionation of a tetraploidy preceding the diversification of the grasses. 19th Plant and Animal Genome Conference. San Diego, CA. January 2011
Schnable JC, Woodhouse MR, Pedersen BS, Lyons E, Lisch D, Subramaniam S, Freeling M. Following tetraploidy in maize, a short deletion mechanism removed genes preferentially from one of the two homeologs. 52nd Annual Maize Genetics Conference. Riva del Garda, Italy. March 2010.
Schnable JC, Pedersen BS, Freeling M, Lyons E. The pan-grass synteny project. 52nd Annual Maize Genetics Conference. Riva del Garda, Italy. March 2010.

Funding:

Tien Graduate Fellowship in Environmental Science and Biodiversity (\$48,000) 2010-2012

Additional Research Experience:

Computational and Systems Biology Summer Institute, Iowa State University 2008
Supervisor: Yan Fu (Current affiliation: Monsanto)
Undergraduate Research Assistant, Boyce Thompson Institute, Ithaca, NY 2005-2007
Supervisor: Tom Brutnell (Current affiliation: Danforth Plant Science Center)
Summer Intern, Danforth Plant Science Center, St. Louis, MO 2007
Supervisor: Brad Barbazuk (Current affiliation: University of Florida)
Research Worker, Pioneer Hi-bred, Johnston, IA 2006
Supervisor: Mei Guo
Undergraduate Research Assistant, Iowa State University, Ames, IA 2005
Supervisor: Eric Vollbrecht

Teaching:

Graduate Student Instructor
Plant and Microbial Biology 13: Genetic Revolutions 2012
Plant and Microbial Biology 40: The Secret Life of Plants 2010

Service and Outreach:

Reviewer: *Genome Biology and Evolution* (with Michael Freeling), *International Journal of Plant Genomics*, *PLoS One*, *The Plant Cell*

Contributing Author to Biofortified.org (a group website devoted to providing factual information and fostering discussion about agriculture, especially plant genetics and genetic engineering)

Volunteer at the American Society of Plant Biology booth at the National Science Teachers Association Meeting. 2011

Mentoring: Vincent Li (Summer Intern with Project SEED): Characterization of unannotated syntenically conserved gene fragments in the grasses.

Professional Affiliations: American Society of Plant Biologists (Western Section)