

GUANJING HU

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Education

- 2006-2013 PhD Genetics, Iowa State University, Ames, Iowa, USA
2002-2006 BS Biology, Peking University, Beijing, P. R. China

Professional Experience

- 2013-present Postdoctoral Scholar to Dr. Jonathan F. Wendel, Iowa State University.
2006-2013 Research Assistant to Dr. Jonathan F. Wendel, Iowa State University.
"Evolutionary Proteomics of Cotton"
2005-2006 Undergraduate Research Assistant to Dr. Xiaodong Su, Laboratory of Protein Structure and Proteomics, Peking University.
"Purification, Crystallization and Preliminary Crystallographic Analysis of SMU.636, a putative glucosamine 6-phosphate deaminase from *Streptococcus mutants*"
2004-2005 Undergraduate Research Assistant to Dr. Yiping Wang, Laboratory of Nitrogen Fixation, State Key Laboratory of Protein Engineering and Plant Genetic Engineering, Peking University.
"Overall Expression of *glnH* Is Increased by CRP-cAMP Complex In *Escherichia coli*"

Teaching Experience

- 2011-2012 Teaching Assistant, Biology Laboratory, ISU (Fall 2011, Spring and Fall 2012)
2010 Teaching Assistant, Principles of Biology Laboratory II, ISU (Spring)
2009 Teaching Assistant, Organismal Evolution, ISU (Spring)

Grants and Awards

- 2012 Teaching Excellence Award, ISU
2009 EEOB Graduate Student Research Awards, ISU (\$500)
International Cotton Genome Initiative travel reimbursement (\$335)
2008 Professional Advancement Grant for Travel, ISU (\$300)

2004 Chun-Tsung Scholarship for Undergraduate Research Project, Peking University (Approximately \$300)

Publications

- Hu, G.**, R. Hovav, C. Grover, A. Faigenboim-Doron, N. Kadmon, J. T. Page, J. Udall and J. F. Wendel. 2016. Evolutionary conservation and divergence of gene coexpression networks in *Gossypium* (cotton) seeds. *Genome Biology and Evolution* 8 (12): 3765-3783.
- Gallagher, J., C. Grover, **G. Hu**, and J. F. Wendel. 2016. Insights into the Ecology and Evolution of Polyploid Plants through Network Analysis. *Molecular Ecology* 25 (11): 2644-2660.
- Hu, G.**, J. Koh, M. J. Yoo, S. Chen, and J. F. Wendel. 2015. Gene-expression novelty in allopolyploid Cotton: A proteomic perspective. *Genetics* 200: 91-104.
- Hovav, R., A. Faigenboim-Doron, N. Kadmon, **G. Hu**, X. Zhang, J. P. Gallagher, and J. F. Wendel. 2015. A transcriptome profile for developing seed of polyploid cotton. *Plant Gen.*
- Hu, G.**, J. Koh, M. J. Yoo, D. Pathak, S. Chen, and J. F. Wendel. 2014. Proteomics profiling of fiber development and domestication in upland cotton (*Gossypium hirsutum* L.). *Planta* 240: 1237-1251.
- Shan, C. M., X. X. Shangguan, B. Zhao, X. F. Zhang, L. M. Chao, C. Q. Yang, L. J. Wang, Hua-Yu Zhu, Yan-Da Zeng, Wang-Zhen Guo, Bao-Liang Zhou, **G. Hu**, X. Y. Guan, J. Z. Chen, J. F. Wendel, T. Z. Zhang, and X. Y. Chen. 2014. Control of cotton fibre elongation by a homeodomain transcription factor GhHOX3. *Nat Commun* 5: 5519.
- Hu, G.**, J. Koh, M. Yoo, K. Grupp, S. Chen, and J. F. Wendel. 2013. Proteomic profiling of developing cotton fibers from wild and domesticated *Gossypium barbadense*. *New Phytologist* 200: 570–582
- Paterson, A. H., J. F. Wendel, H. Gundlach, H. Guo, J. Jenkins, D. Jin, D. Llewellyn, K. C. Showmaker, S. Shu, J. Udall, M. Yoo, R. Byers, W. Chen, A. Doron-Faigenboim, M. V. Duke, L. Gong, J. Grimwood, C. Grover, K. Grupp, **G. Hu**, T. Lee, J. Li, L. Lin, T. Liu, B. S. Marler, J. T. Page, A. W. Roberts, E. Romane, W. S. Sanders, E. Szadkowski, X. Tan, H. Tang, C. Xu, J. Wang, Z. Wang, D. Zhang, L. Zhang, H. Ashrafi, F. Bedon, J. E. Bowers, C. L. Brubaker, P. W. Chee, S. Das, A. R. Gingle, C. H. Haigler, D. Harker, L. V. Hoffmann, R. Hovav, D. C. Jones, C. Lemke, S. Mansoor, M. Rahman, L. N. Rainville, A. Rambani, U. K. Reddy, J. Rong, Y. Saranga, B. E. Scheffler, J. A. Scheffler, D. M. Stelly, B. A. Triplett, A. V. Deynze, M. F. S. Vaslin, V. N. Waghmare, S. A. Walford, R. J. Wright, E. A. Zaki, T. Zhang, E. S. Dennis, K. F. X. Mayer, D. G. Peterson, D. S. Rokhsar, X. Wang & J. Schmutz. 2012. Repeated polyploidization of *Gossypium* genomes and the

- evolution of spinnable cotton fibres. *Nature* 492: 423-428.
- Bao, Y., **G. Hu**, L. E. Flagel, A. Salmond, M. Bezanilla, A. H. Paterson, Z. Wang, and J. F. Wendel. 2011. Parallel up-regulation of the profilin gene family following independent domestication of diploid and allopolyploid cotton (*Gossypium*). *Proc. Natl. Acad. Sci. USA* 108: 21152–21157.
- Hu, G.**, N. L. Houston, D. Pathak, L. Schmidt, J. Thelen and J. F. Wendel. 2011. Genomically biased accumulation of seed storage proteins in allopolyploid cotton. *Genetics* 189: 1103-1115.
- Hu, G.**, J. Hawkins, C. Grover, J. F. Wendel. 2010. The history and disposition of transposable elements in polyploid *Gossypium*. *Genome* 53: 599-607.
- Hovav, R., J. A. Udall, B. Chaudhary, E. Hovav, L. Flagel, **G. Hu**, and J. F. Wendel. 2008. The evolution of spinable cotton fiber entailed natural selection for prolonged development and a novel metabolism. *PLOS Genetics* 4(2): e25.
- Hawkins, J. S., **G. Hu**, R. A. Rapp, J. L. Grafenberg, and J. F. Wendel. 2008. Phylogenetic determination of the pace of transposable element proliferation in plants: copia and LINE-like elements in *Gossypium*. *Genome* 51: 11-18.
- Hu, G.**, L. Li, D. Li, C. Liu, S. Wei, Y. Liang and X. Su. 2007. Protein preparation and preliminary X-ray crystallographic analysis of a putative glucosamine 6-phosphate deaminase from *Streptococcus mutants*. *Acta Crystallographica Section F* 63: 809-811.

Presentations at Professional Conferences

- “Promise and pitfalls of proteomics in polyploid plants” 2014. Plant and Animal Genome Conference: section Polyploidy. San Diego, CA.
- “Comparative proteomics of diploid and polyploid cotton” 2014. Plant and Animal Genome Conference: section Proteomics. San Diego, CA.
- “Evolutionary proteomics of cottonseed.” 2009. Plant and Animal Genome Conference: section Cotton. San Diego, CA.
- “Comparative evolutionary analysis of cottonseed proteome.” 2009. Plant and Animal Genome Conference: section Proteomics. San Diego, CA.

Service and Professional Activities

- Member, International Cotton Genome Initiative (ICGI), International Plant Proteomics Organization (INPPO)
- Reviewer, *Heredity*, *Journal of Proteomics*
- Graduate Student Representative, EEOB Plant Evolutionary Genomics Position Search Committee, 2012
- Visiting Scientist, University of Missouri, Columbia, Summer 2007
- Mentor of Undergraduate Researcher, Linnea Schmidt, Iowa State University, 2009