

## Jonathan F. Wendel

**Work Address:** Department of Ecology, Evolution, & Organismal Biology, Iowa State University, Ames, IA 50011  
Phone: 515-294-7172; email: [jfw@iastate.edu](mailto:jfw@iastate.edu);

**Web site:** <https://faculty.sites.iastate.edu/jfw/welcome-wendel-lab>

**Google Scholar:** <https://scholar.google.com/citations?user=5uOZXRwAAAAJ&hl=en>

**Academic Training:** B.S., University of Michigan (1976); M.S., University of North Carolina (1980); Ph.D., University of North Carolina (1983)

### Academic Positions:

5/83-7/86: Geneticist, USDA, ARS, Genetics Dept., North Carolina State University  
8/86-7/91: Assistant Professor of Botany, Dept. of Botany, Iowa State University  
8/91-7/96: Associate Professor of Botany, Dept. of Botany, Iowa State University  
12/97-6/98: Jacob Meyerhoff Visiting Professor, Weizmann Institute, Rehovot, Israel  
8/96-6/2002: Professor of Botany, Dept. of Botany, Iowa State University  
7/2002-6/2003: Interim Chair, Department of Ecology, Evolution, & Organismal Biology, Iowa State University  
7/2003-6/2017: Chair, Department of Ecology, Evolution, & Organismal Biology, Iowa State University  
7/2012 -present: Distinguished Professor, Department of Ecology, Evolution, & Organismal Biology, Iowa State University  
1/19-6/19: Leverhulme Professorship, Kew Gardens and Queen Mary University, London  
9/19-12/19: Fulbright Senior Scholar, Spain

### Honors and Awards

*Margaret Menzel Award, Botanical Society of America, Best Paper Outstanding Achievement in Research, Iowa State University, 1999*  
*Master Teacher, College of Liberal Arts and Sciences, Iowa State University, 2005*  
*Outstanding Achievement in Departmental Leadership, Iowa State University, 2009*  
*Fellow, American Association for the Advancement of Science, 2010*  
*Outstanding Contributions to Cotton Genomics award, ICGI, 2012*  
*Distinguished Professor, Iowa State University, 2012*  
*Cotton Biotechnology Award, Cotton Incorporated, 2013*  
*Distinguished Fellow of the Botanical Society of America, 2015*  
*Distinguished Scholar, Crop Science Society of America, 2015*  
*Leverhulme Professorship, Kew Gardens and Queen Mary University, London, 2019*  
*Fulbright Senior Scholar, Spain, 2019*  
*International Cotton Advisory Committee Researcher of the Year, 2021*  
*Election as Member of the American Academy of Arts and Sciences, 2023*

### Publications

Wendel, J.F. and C.R. Parks. 1979. The application of electrophoresis to taxonomic and breeding problems in *Camellia*. *Camellia Journal* 34: 39-41.

- Wendel, J.F. 1980. Enzyme extraction from a tannin-rich plant. *Isozyme Bulletin* 13:116.
- Wendel, J.F. and C.R. Parks. 1982. Genetic control of isozyme variation in *Camellia japonica* L. (Theaceae). *Journal of Heredity* 73: 197-204.
- Parks, C. R., N. G. Miller, J. F. Wendel and K. M. McDougal. 1983. Genetic divergence in the genus *Liriodendron*. *Annals of the Missouri Botanical Garden* 70: 658-666.
- Wendel, J.F. and C.R. Parks. 1982. Cultivar characterization and nomenclatural clarification by protein electrophoresis in *Camellia japonica* L. *American Camellia Society Yearbook* 37: 19-32.
- Wendel, J.F. 1983. Electrophoretic analysis of genetic variation in wild and cultivated *Camellia japonica* L. Ph.D. dissertation. University of North Carolina, Chapel Hill.
- Cardy, B.J., C.W. Stuber, J.F. Wendel, and M.M. Goodman. 1983. Techniques for starch gel electrophoresis of enzymes from maize (*Zea mays* L.). 2nd revised edition. Institute of Statistics Mimeograph Series no. 1317R, North Carolina State University.
- Suiter, K.A., J.F. Wendel and J.S. Case. 1983. LINKAGE-I, a computer program for the analysis of genetic segregation data. *Journal of Heredity* 74: 203-204.
- Wendel, J.F. and C.R. Parks. 1983. Cultivar identification in *Camellia japonica* L. using allozyme polymorphisms. *Journal of the American Society of Horticultural Science* 108:290-295.
- Wendel, J.F. 1984. Electrophoretic identification of polyploid *Camellia japonica* cultivars and evidence for their sexual origin. *Plant Systematic and Evolution* 145: 223-226.
- Wendel, J.F. and C.R. Parks. 1984. Distorted segregation and linkage of alcohol dehydrogenase genes in *Camellia japonica* L. (Theaceae). *Biochemical Genetics* 22: 739-748.
- Wendel, J.F. and C.W. Stuber. 1984. Plant Isozymes: Enzymes studied and buffer systems for their electrophoretic resolution in starch gels. *Isozyme Bulletin* 17:4-11.
- Wendel, J.F. and C.R. Parks. 1985. Genetic diversity and population structure of *Camellia japonica* L. (Theaceae). *American Journal of Botany* 72: 52-65.
- Wendel, J.F., C.W. Stuber, and M.M. Goodman. 1985. Twelve new isozyme loci in maize: Progress report on chromosomal locations, and the subunit composition and subcellular localization of their products. *Maize Genetics Cooperation News Letter* 59:87-88.
- Wendel, J.F., C.W. Stuber, and M.M. Goodman. 1985. Linkage relationships between a hexokinase locus and previously assigned loci on chromosome six. *Maize Genetics Cooperation News Letter* 59: 89-90.
- Wendel, J.F., C.W. Stuber, and M.M. Goodman. 1985. Localization of two new isozyme loci, *Hex1* and *Tpi4*, to chromosome 3. *Maize Genetics Cooperation News Letter* 59:88.
- Wendel, J.F., C.W. Stuber, and M.M. Goodman. 1985. Mapping data for 34 isozyme loci currently being studied. *Maize Genetics Cooperation News Letter* 59:90.
- Wendel, J.F. and J.B. Beckett. 1986. Further localization of *Tpi4* near the centromere on the long arm of chromosome 3. *Maize Genetics Cooperation News Letter* 60:119
- Wendel, J.F., C.W. Stuber, and M.M. Goodman. 1986. Additional mapping experiments with maize isozyme loci. *Maize Genetics Cooperation News Letter* 60:120-122.
- Wendel, J.F., C.W. Stuber, M.D. Edwards, and M.M. Goodman. 1986. Duplicated chromosome segments in *Zea mays* L.: Further evidence from hexokinase isozymes. *Theoretical and Applied Genetics* 72: 178-185.
- Edwards, M.D., C.W. Stuber, and J.F. Wendel. 1987. Molecular marker facilitated investigations of quantitative trait loci in maize: I. Numbers, genomic distribution, and types of gene action. *Genetics* 116: 113-125.
- Stuber, C.W., M.D. Edwards, and J.F. Wendel. 1987. Molecular marker facilitated investigations of quantitative trait loci in maize: II. Factors influencing yield and its component traits. *Crop Science* 27: 639-648.
- Wendel, J.F., M.D. Edwards, and C.W. Stuber. 1987. Evidence for multilocus genetic control of preferential fertilization in maize. *Heredity* 58: 297-301.
- Wendel, J. F. and J. B. Beckett. 1987. A new isozyme marker for the short arm of chromosome 6. *Maize Genetics Cooperation News Letter* 61:19.

- Sisco, P.H., J.F. Wendel, and C.W. Stuber. 1987. *Acp4* is the most distal marker on chromosome 1L. *Maize Genetics Cooperation News Letter* 61:86.
- Doebley, J.F., J.F. Wendel, S.C. Smith, C.W. Stuber, and M.M. Goodman. 1988. The origin of cornbelt maize: the isozyme evidence. *Economic Botany* 42: 120-132.
- Wendel, J.F., M.M. Goodman, C.W. Stuber, and J.B. Beckett. 1988. New isozyme systems for maize (*Zea mays* L.): Aconitate hydratase, adenylate kinase, NADH dehydrogenase, and shikimate dehydrogenase. *Biochemical Genetics* 26: 421-445.
- Stuber, C.W., J.F. Wendel, M.M. Goodman, and J.S.C. Smith. 1988. Techniques and scoring procedures for starch gel electrophoresis of enzymes from maize (*Zea mays* L.). *North Carolina State Experiment Station Technical Bulletin* 286. North Carolina State University, Raleigh. 87pp.
- Pleasant, J.P. and J.F. Wendel. 1989. Genetic diversity in a clonal narrow endemic, *Erythronium propullans*, and its widespread progenitor, *E. albidum*. *American Journal of Botany* 76: 1136-1151.
- Weeden, N.F. and J.F. Wendel. 1989. Genetics of Plant Isozymes. In: D.E. Soltis and P.M. Soltis (eds.), *Isozymes in Plant Biology*, pp 46-72. Dioscorides Press, Portland, Oregon.
- Wendel, J.F. 1989. New World tetraploid cottons contain Old World cytoplasm. *Proceedings of the National Academy of Science USA* 86: 4132-4136.
- Wendel, J.F. and N.F. Weeden. 1989. Visualization and Interpretation of Plant Isozymes. In: D.E. Soltis and P.M. Soltis (eds.), *Isozymes in Plant Biology*, pp. 5-45. Dioscorides Press, Portland, Oregon.
- Wendel, J.F., C.W. Stuber, M.M. Goodman, and J.B. Beckett. 1989. Duplicated plastid and triplicated cytosolic isozymes of triose phosphate isomerase in maize (*Zea mays* L.). *Journal of Heredity* 80: 218-228.
- Wendel, J.F., P.D. Olson and J.M. Stewart. 1989. Genetic diversity, introgression and independent domestication of Old World cultivated cottons. *American Journal of Botany* 76: 1795-1806.
- Doebley, J.F. and J. F. Wendel. 1989. Application of RFLPs to plant systematics. In: Current Communications in Molecular Biology - Development and Application of Molecular Markers to Problems in Plant Genetics (T. Helentjaris and B. Burr, Eds.). Cold Spring Harbor Laboratory.
- Wendel, J. F. 1989. Chromosomal locations of isozyme loci in maize (*Zea mays* L.). *Isozyme Bulletin* 22:33-35.
- Doebley, J. F., A. Stec, J. F. Wendel and M. Edwards. 1990. Genetic analysis of a maize-teosinte F<sub>2</sub> population: Implications for the origin of maize. *Proceedings of the National Academy of Science USA* 87: 9888-9892.
- Parks, C.R. and J.F. Wendel. 1990. Molecular divergence between Asian and North American species of *Liriodendron* (Magnoliaceae) with implications for interpretation of fossil geofloras. *American Journal of Botany* 77: 1243-1256.
- Bretting, P. K. and J. F. Wendel. 1990. Utility of *Tpi3* and *Tpi4* variants in quality control of hybrid popcorn seed production. *Maize Genetics Cooperation Newsletter* 64:121-122.
- Parks, C.R., J.F. Wendel, M.M. Sewell and L.Y. Qui. 1990. Genetic control of isozyme variation in the genus *Liriodendron* L. *Journal of Heredity* 81: 317-323.
- Percy, R.G. and J.F. Wendel. 1990. Allozyme evidence for the origin and diversification of *Gossypium barbadense* L. *Theoretical and Applied Genetics* 79: 529-542.
- Wendel, J. F. and A. E. Percival. 1990. Molecular divergence in the Galapagos Island-Baja California species pair, *Gossypium klotzschianum* and *G. davidsonii* (Malvaceae). *Plant Systematics and Evolution* 171: 99-115.
- Wendel, J. F. and R. G. Percy. 1990. Allozyme diversity and introgression in the Galapagos endemic *Gossypium darwinii* and its relationship to continental *G. barbadense*. *Biochemical Systematics and Ecology* 18: 517-528.
- Dekker, J., R. Burmester and J. Wendel. 1991. Mutant weeds of Iowa: S-triazine resistant Pennsylvania smartweed (*Polygonum pennsylvanicum*). *Weed technology* 5: 211-213.

- Klier, K., M. J. Leoschke and J. F. Wendel. 1991. Hybridization and introgression in white and yellow lady'slipper orchids (*Cypripedium candidum* and *C. pubescens*). *Journal of Heredity* 82:305-319.
- Wendel, J. F., J. McD. Stewart and J. H. Rettig. 1991. Molecular evidence for homoploid reticulate evolution in Australian species of *Gossypium*. *Evolution* 45: 694-711.
- DeJooe, D. R. and J. F. Wendel. 1992. Genetic diversity and origin of the Hawaiian Islands cotton, *Gossypium tomentosum*. *American Journal of Botany* 79: 1311-1319.
- VanderWiel, P. L. and J. F. Wendel. 1992. Phylogenetic analysis of cotton retrotransposons. *Plant Molecular Evolution Newsletter* 1(2):34-37.
- Bretting, P. K., S. M. Stack, J. F. Wendel, E. Meyerowitz, J. Colbert, L. Rieseberg, R. C. Jackson, V. Walbot and H. J. Price. 1992. BSA-Genetics section research agenda. *Plant Genetics Newsletter* 8:26-29.
- Wendel, J. F. and V. A. Albert. 1992. Phylogenetics of the cotton genus (*Gossypium* L.): Character-state weighted parsimony analysis of chloroplast DNA restriction site data and its systematic and biogeographic implications. *Systematic Botany* 17: 115-143.
- Wendel, J. F., C. L. Brubaker and A. E. Percival. 1992. Genetic diversity in *Gossypium hirsutum* and the origin of Upland cotton. *American Journal of Botany* 79: 1291-1310.
- Brubaker, C. L. and J. F. Wendel. 1993. On the specific status of *Gossypium lanceolatum* Todaro. *Genetic Resources and Crop Evolution* 40: 165-170.
- Brubaker, C. L., J. A. Koontz and J. F. Wendel. 1993. Bidirectional cytoplasmic and nuclear introgression in the New World cottons, *Gossypium barbadense* and *G. hirsutum*. *American Journal of Botany* 80: 222-227.
- Paterson, A. H., C. L. Brubaker and J. F. Wendel. 1993. A rapid method for extraction of cotton (*Gossypium* spp.) genomic DNA suitable for RFLP and PCR analysis. *Plant Molecular Biology Reporter* 11: 122-127.
- Rieseberg, L. H. and J. F. Wendel. 1993. Introgression and its consequences in plants. In: *Hybrid Zones and the Evolutionary Process*, R. Harrison (ed.), pp. 70-109. Oxford University Press.
- Wendel, J. F. and C. L. Brubaker. 1993. The gene pool of *Gossypium hirsutum*. *Proceedings of the 1993 Beltwide Cotton Conference*, National Cotton Council. 1556.
- VanderWiel, P. S., D. F. Voytas and J. F. Wendel. 1993. *Copia*-like retrotransposable element evolution in diploid and polyploid cotton (*Gossypium* L.). *Journal of Molecular Evolution* 36: 429-447.
- Brubaker, C. L. and J. F. Wendel. 1994. Reevaluating the origin of domesticated cotton (*Gossypium hirsutum*: Malvaceae) using nuclear restriction fragment length polymorphisms (RFLPs). *American Journal of Botany* 81: 1309-1326.
- Parks, C. R., J. F. Wendel, M. M. Sewell, and Y.-L. Qui. 1994. The significance of allozyme variation and introgression in the *Liriodendron tulipifera* complex (Magnoliaceae). *American Journal of Botany* 81: 878-889.
- Reinisch, A. J. J. Dong, C. L. Brubaker, D. M. Stelly, J. F. Wendel, and A. H. Paterson. 1994. A detailed RFLP map of cotton, *Gossypium hirsutum* x *G. barbadense*: chromosome organization and evolution in a disomic polyploid genome. *Genetics* 138:829-847.
- Stanton, M. A., J. McD. Stewart, A. E. Percival and J. F. Wendel. 1994. Morphological diversity and relationships in the A-genome cottons, *Gossypium arboreum* and *G. herbaceum*. *Crop Science* 34: 519-527.
- Wendel, J. F., R. Rowley and J. Stewart. 1994. Genetic diversity in and phylogenetic relationships of the Brazilian endemic cotton, *Gossypium mustelinum* (Malvaceae). *Plant Systematics and Evolution* 192: 49-59.
- Whitkus, R., J. Doebley, and J. F. Wendel. 1994. Nuclear DNA markers in systematics and evolution. In: *DNA-based Markers in Plants* (R. L. Phillips and I. K. Vasil, eds.), pp. 116-141. Kluwer Academic Publishers, Dordrecht, Holland.

- Wendel, J. F. 1995. Cotton. In: *Evolution of Crop Plants* (N. Simmonds and J. Smartt, eds.), pp. 358-366. Longman, London.
- Wendel, J. F., A. Schnabel, and T. Seelanan. 1995. Bidirectional interlocus concerted evolution following allopolyploid speciation in cotton (*Gossypium*). *Proceedings of the National Academy of Sciences USA* 92: 280-284.
- Wang, R.-L., J. F. Wendel, and J. H. Dekker. 1995. Weedy adaptation in *Setaria* spp.: I. Isozyme analysis of genetic diversity and population genetic structure in *Setaria viridis*. *American Journal of Botany* 82: 308-317.
- Wang, R.-L., J. F. Wendel, and J. H. Dekker. 1995. Weedy adaptation in *Setaria* spp.: II. Genetic diversity and population genetic structure in *S. glauca*, *S. geniculata*, and *S. faberii*. *American Journal of Botany* 82: 1031-1039.
- Wendel, J. F. 1995. Cotton. In: *Evolution of Crop Plants* (N. Simmonds and J. Smartt, eds.), pp. 358-366. Longman, London.
- Paterson, A. H., J. F. Wendel, and R. J. Kohel. 1995. In Altenback, S. et al. (19 authors), USDA Plant genome research program. *Advances in Agronomy* 55: 113-166
- Wendel, J. F., A. Schnabel, and T. Seelanan. 1995. An unusual ribosomal DNA sequence from *Gossypium gossypioides* reveals ancient, cryptic, intergenomic introgression. *Molecular Phylogenetics and Evolution* 4: 298-313.
- Clark, L. G., J. F. Wendel, and L. A. Craven. 1995. A New Species of *Micraira* (Poaceae: Micraireae) from northern Western Australia. *The Beagle* 12: 1-7.
- Clark, L. G., W. Zhang, and J. F. Wendel. 1995. A phylogeny of the grass family based on *ndhF* sequence data. *Systematic Botany* 20: 436-460.
- Crane, E. H., D. F. Farrar, and J. F. Wendel. 1995. Phylogeny of Vittariaceae: Convergent simplification leads to a polyphyletic *Vittaria*. *American Fern Journal* 85: 283-305.
- Cronn, R. C., X. Zhao, A. H. Paterson, and J. F. Wendel. 1996. Polymorphism and concerted evolution in a tandemly repeated gene family: 5S ribosomal DNA in diploid and allopolyploid cottons. *Journal of Molecular Evolution* 42: 685-705.
- Kelchner, S. A. and J. F. Wendel. 1996. Hairpins create minute inversions in non-coding regions of chloroplast DNA. *Current Genetics* 30: 259-262.
- Paterson, A. H., T.-H. Lan, K. P. Reischmann, C. Chang, Y.-R. Lin, S.-C. Liu, M. D. Burow, S. P. Kowalski, C. S. Katsar, T. A. DelMonte, K. A. Feldmann, K. F. Schertz, and J. F. Wendel. 1996. Toward a unified genetic map of higher plants, transcending the monocot-dicot divergence. *Nature Genetics* 14: 380-382.
- Wendel, J. F. 1996. The evolution of cotton and its genome. Proceedings of the symposium "Biotechnology and Biodiversity", University of Morelos, Mexico
- Seelanan, T., A. Schnabel and J. F. Wendel. 1997. Congruence and consensus in the cotton tribe. *Systematic Botany* 22: 259-290.
- Gaut, B. S., L. G. Clark, J. F. Wendel and S. V. Muse. 1997. Comparisons of the molecular evolutionary process at *rbcL* and *ndhF* in the grass family (Poaceae). *Molecular Biology and Evolution* 14: 769-777.
- Zhang, W., J. F. Wendel, and L. G. Clark. 1997. Bamboozled again!: Inadvertent isolation of fungal rDNA sequences from bamboos (Poaceae: Bambusoideae). *Molecular Phylogenetics and Evolution* 8: 205-217.
- Cronn, R., M. Brothers, K. Klier, P.K. Bretting, and J. F. Wendel. 1997. Allozyme variation in domesticated annual sunflower and its wild relatives. *Theoretical and Applied Genetics* 95:532-545.
- Paterson, A. H., J. F. Wendel, D. M. Stelly, and X. Zhao. 1997. Status of genome mapping tools in the Malvaceae. In: *Genome Mapping in Plants* (A. H. Paterson, ed.), pp 229-239. Academic Press, NY.
- Stewart, J. McD., L. A. Craven and J. F. Wendel. 1997. A new Australian species of *Gossypium*. Proc. Beltwide Cotton Conf. p. 448. National Cotton Council, Memphis, TN.

- Baum, D. A., R. L. Small, and J. F. Wendel. 1998. Biogeography and floral evolution of baobabs (*Adansonia*, Bombacaceae) as inferred from multiple data sets. *Systematic Biology* 47: 181-207.
- Cronn, R. C. and J. F. Wendel. 1998. Simple methods for isolating homoeologous loci from allopolyploid genomes. *Genome* 41: 756-762.
- Davis, J. I., M. P. Simmons, D. W. Stevenson and J. F. Wendel. 1998. Data decisiveness and data quality in phylogenetic analysis: an example from the monocots using mitochondrial atpA sequences. *Systematic Biology* 47: 282-310.
- Small, R. L., J. A. Ryburn, R. C. Cronn, T. Seelanan, and J. F. Wendel. 1998. The tortoise and the hare: choosing between noncoding plastome and nuclear *Adh* sequences for phylogeny reconstruction in a recently diverged plant group. *American Journal of Botany* 85: 1301-1315.
- Wendel, J. F. and J. J. Doyle. 1998. Phylogenetic incongruence: Window into genome history and molecular evolution. Pp. 265-296 In: *Molecular Systematics of Plants II* (P. Soltis, D. Soltis, and J. Doyle, eds.), Kluwer Academic Publ., Dordrecht.
- Zhao, X.-P., Y. Si, R. E. Hanson, C. F. Crane, H. J. Price, D. M. Stelly, J. F. Wendel and A. H. Paterson. 1998. Dispersed repetitive DNA has colonized new genomes since polyploid formation in cotton. *Genome Research* 8: 479-492.
- Schnabel, A. and J. F. Wendel. 1998. Cladistic biogeography of *Gleditsia* (Leguminosae) based on *ndhF* and *rpl16* chloroplast gene sequences. *American Journal of Botany* 85: 1753-1765.
- Small, R. L. and J. F. Wendel. 1999. The mitochondrial genome of allotetraploid cotton (*Gossypium* L.). *Journal of Heredity* 90: 251-253.
- Seelanan, T., C. L. Brubaker, J. McD. Stewart, L. A. Craven, and J. F. Wendel. 1999. Molecular Systematics of Australian *Gossypium* section *Grandicalyx* (Malvaceae). *Systematic Botany* 24: 183-208.
- Brubaker, C. L., F. M. Bourland and J. F. Wendel. 1999. The origin and domestication of cotton. In: *Cotton; origin, history, technology and production* (C. W. Smith and J. T. Cothren, eds.), pp. 3-31. John Wiley & Sons, New York.
- Percival, A. E., J. McD. Stewart and J. F. Wendel. 1999. Taxonomy and germplasm resources. In: *Cotton; origin, history, technology and production* (C. W. Smith and J. T. Cothren, eds.), pp. 33-63. John Wiley & Sons, New York.
- Brubaker, C. L., A. H. Paterson, and J. F. Wendel. 1999. Comparative genetic mapping of allotetraploid cotton and its diploid progenitors. *Genome* 42: 184-203.
- Small, R. L., J. A. Ryburn, and J. F. Wendel. 1999. Low levels of nucleotide diversity at homoeologous *Adh* loci in allotetraploid cotton (*Gossypium* L.). *Molecular Biology and Evolution* 16: 491-501.
- Huang, L., E. Millet, J.K. Rong, J. F. Wendel, and M. Feldman. 1999. Restriction fragment length polymorphism in wild and cultivated tetraploid wheat. *Israeli Journal of Plant Science* 47: 213-224.
- Wendel, J. F., C. L. Brubaker and T. Seelanan. 1999. The origin and evolution of *Gossypium*. In: *Cotton Physiology, Book II* (J. Stewart, D. Oosterhuis, and J. Heitholt, eds.), The Cotton Foundation, Memphis, TN.
- Wendel, J. F., R. L. Small, R. C. Cronn, and C. L. Brubaker. 1999. Genes, jeans, and genomes: Reconstructing the history of cotton. Pp. 133-161 in: *Plant evolution in man-made habitats. Proceedings of the VIIth international symposium of the international organization of plant biosystematists* (L.W.D. van Raamsdonk and J. C. M. den Nijs, eds.). Hugo de Vries Laboratory, Amsterdam, The Netherlands.
- Cronn, R., R. L. Small, and J. F. Wendel. 1999. Duplicated genes evolve independently following polyploid formation in cotton. *Proceedings of the National Academy of Sciences USA* 96: 14406-14411.
- Hanson, R. E., M. N. Islam-Faridi, C. F. Crane, M. S. Zwick, D. C. Czeschin, J. F. Wendel., T. D. McKnight, H. J. Price, and D. M. Stelly. 1999. Ty1-*copia*-retrotransposon behavior in a polyploid cotton. *Chromosome Research* 8: 73-76.

- Wendel, J. F. 1999. Genes, jeans and genomes: cotton as a model of polyploid evolution. *Focus; Proceedings of the MAPMBS Meetings, 1998*, pp. 2-4.
- Pan, Q., J. Wendel, D. Zamir and R. Fluhr. 2000. Divergent evolution of plant NBS-LRR homologues in dicot and cereal genomes. *Journal of Molecular Evolution* 50: 203-213.
- Wendel, J. F. 2000. Genome evolution in polyploids. *Plant Molecular Biology* 42: 225-249.
- Small, R. L. and J. F. Wendel. 2000. Phylogeny, duplication, and intraspecific variation of *Adh* sequences in New World diploid cottons (*Gossypium* L., Malvaceae). *Molecular Phylogenetics and Evolution* 16: 73-84.
- Small, R. L. and J. F. Wendel. 2000. Copy number lability and evolutionary dynamics of the *Adh* gene family in diploid and tetraploid cotton (*Gossypium*). *Genetics* 155: 1913-1926.
- Liu, B. and J. F. Wendel. 2000. Retroelement activation followed by rapid repression in interspecific hybrid plants. *Genome* 43: 874-880.
- Wendel, J. F. and S. R. Wessler. 2000. Retrotransposon-mediated genome evolution on a local ecological scale. *Proceedings of the National Academy of Sciences USA* 97: 6250-6252.
- Appelquist, W. L., R. C. Cronn, and J. F. Wendel. 2001. Comparative development of fiber in wild and cultivated cotton. *Evolution and Development* 3: 1-15.
- Liu, B., C. L. Brubaker, G. Mergeai, R. C. Cronn, and J. F. Wendel. 2001. Polyploid formation in cotton is not accompanied by rapid genomic changes. *Genome* 44: 321-330.
- Liu, B. and J. F. Wendel. 2001. Inter-simple sequence repeat (ISSR) polymorphisms as a genetic marker system in cotton. *Molecular Ecology Notes* 1: 205-208.
- Brubaker, C. L. and J. F. Wendel. 2001. RFLP diversity in cotton. In: *Genetic improvement of cotton: emerging technologies* (J. N. Jenkins and S. Saha, eds.), pp. 81-102. Science Publishers Inc., Enfield, New Hampshire.
- Wendel, J. F., R. C. Cronn, J. S. Johnston and H. J. Price. 2002. Feast and famine in plant genomes. *Genetica* 115: 37-47.
- Cronn, R. C., M. Cedroni, T. Haselkorn, C. Osborne, and J. F. Wendel. 2002. PCR-mediated recombination in amplification products derived from polyploid cotton. *Theoretical and Applied Genetics* 104: 482-489.
- Cronn, R. C., R. L. Small, T. Haselkorn, and J. F. Wendel. 2002. Rapid diversification of the cotton genus (*Gossypium*: Malvaceae) revealed by analysis of sixteen nuclear and chloroplast genes. *American Journal of Botany* 89: 707-725.
- Small, R. L. and J. F. Wendel. 2002. Differential evolutionary dynamics of duplicated paralogous *Adh* loci in allotetraploid cotton (*Gossypium*). *Molecular Biology and Evolution* 19: 597-607.
- Liu, B. and J. F. Wendel. 2002. Non-Mendelian phenomena in allopolyploid genome evolution. *Current Genomics* 3: 489-506.
- Wendel, J. F., R. C. Cronn, I. Alvarez, B. Liu, R. L. Small, and D. Senchina. 2002. Intron size and genome size in plants. *Molecular Biology and Evolution* 19: 2346-2352.
- Wendel, J. F. and R. C. Cronn. 2003. Polyploidy and the evolutionary history of cotton. *Advances in Agronomy* 78: 139-186.
- Cedroni, M. L., R. C. Cronn, K. L. Adams, T. A. Wilkins and J. F. Wendel. 2003. Evolution and expression of *MYB* genes in diploid and polyploid cotton. *Plant Molecular Biology* 51: 313-325.
- Schnabel, A., P. E. McDonel, and J. F. Wendel. 2003. Phylogenetic Relationships in *Gleditsia* (Leguminosae) based on ITS sequences. *American Journal of Botany* 90: 310-320.
- Senchina, D. S., I. Alvarez, R. C. Cronn, B. Liu, J. Rong, R. D. Noyes, A. H. Paterson, R. A. Wing, T. A. Wilkins, and J. F. Wendel. 2003. Rate variation among nuclear genes and the age of polyploidy in *Gossypium*. *Molecular Biology and Evolution* 20:633-643.
- Cronn, R. C., R. L. Small, T. Haselkorn, and J. F. Wendel. 2003. Cryptic repeated genomic recombination during speciation in *Gossypium*. *Evolution* 57: 2475-2489.
- Alvarez, I. and J. F. Wendel. 2003. Ribosomal ITS sequences and plant phylogenetic inference. *Molecular Phylogenetics and Evolution* 29: 417-434.

- Adams, K., R. Cronn, R. Percifield, and J. F. Wendel. 2003. Genes duplicated by polyploidy show unequal contributions to the transcriptome and organ-specific reciprocal silencing. *Proceedings of the National Academy of Sciences USA* 100: 4649-4654.
- Liu, B. and J. F. Wendel. 2003. Epigenetic phenomena and the evolution of plant allopolyploids. *Molecular Phylogenetics and Evolution* 29: 365-379.
- Adams, K. L. and J. F. Wendel. 2004. Exploring the genomic mysteries of polyploidy in cotton. *Biological Journal of the Linnean Society* 82: 573-581.
- Rudgers, J. A., S. Y. Strauss, and J. F. Wendel. 2004. Trade-offs between anti-herbivore resistance traits: within- and among-species comparisons using *Gossypium*. *American Journal of Botany* 91: 871-880.
- Small, R. A., R. C. Cronn, and J. F. Wendel. 2004. The use of nuclear genes for phylogeny reconstruction in plants. *Australian Systematic Biology* 17: 145-170.
- Cronn, R. C. and J. F. Wendel. 2004. Cryptic trysts, genomic mergers and plant speciation. *New Phytologist* 161: 133-142.
- Rieseberg, L. H. and J. F. Wendel. 2004. Commentary: Plant Speciation. *New Phytologist* 161: 3-6.
- Rong, J., C. Abbey, J. E. Bowers, C. L. Brubaker, C. Chang, P. W. Chee, T. A. Delmonte, X. Ding, J. J. Garza, B. S. Marler, C. Park, G. J. Pierce, K. M. Rainey, V. K. Rastogi, S. R. Schulze, N. L. Trolinder, J. F. Wendel, T. A. Wilkins, T. D. Williams-Coplin, R. A. Wing, R. J. Wright, X. Zhao, L. Zhu, and A. H. Paterson. 2004. A 3347-locus genetic recombination map of sequence-tagged sites reveals features of genome organization, transmission and evolution of cotton (*Gossypium*). *Genetics* 166: 389-417.
- Grover, C. E., H. Kim, R. A. Wing, A. H. Paterson, and J. F. Wendel. 2004. Incongruent patterns of local and global genome size evolution in cotton. *Genome Research* 14: 1474-1482.
- Adams, K.L., R. Percifield, and J. F. Wendel. 2004. Organ-specific silencing of duplicated genes in a newly synthesized cotton allotetraploid. *Genetics* 168:2217-2226.
- Wendel, J. F. and K. L. Adams. 2005. Genome evolution and gene silencing in polyploid cotton. In: *Plant species-level systematics: new perspectives on pattern and process* (F. T. Bakker, L. W. Chatrou, B. Gravendeel, and P. Pelsner (eds.), Gantner Verlag, Ruggell. *Regnum Vegetabile* 142: 271-290.
- Wendel, J. F. and J. J. Doyle. 2005. Polyploidy and Evolution in plants. Pp 97-117 In: *Plant Diversity and Evolution* (R. J. Henry, Ed.). CABI Publishing, Wallingford, UK.
- Adams, K. L. and J. F. Wendel. 2005. Polyploidy and genome evolution in plants. *Current opinions in plant biology* 8: 135-141.
- Salmon, A., M. L. Ainouche, and J. F. Wendel. 2005. Genetic and epigenetic consequences of recent hybridization and polyploidy in *Spartina* (Poaceae). *Molecular Ecology* 14: 1163-1175.
- Rapp, R. A., I. Alvarez, and J. F. Wendel. 2005. Molecular confirmation of the position of *Gossypium trifurcatum* Vollesen. *Genetic Resources and Crop Evolution* 52: 749-753.
- Hawkins, J. S., J. Pleasants, and J. F. Wendel. 2005. Identification of AFLP markers that discriminate between cultivated cotton and the Hawaiian island endemic, *Gossypium tomentosum*. *Genetic Resources and Crop Evolution* 52: 1069-1078.
- Álvarez, I., R. Cronn, and J. F. Wendel. 2005. Phylogeny of the New World diploid cottons (*Gossypium* L., Malvaceae) based on sequences of three low-copy nuclear genes. *Plant Systematics and Evolution* 252: 199-214.
- Rong, J., G. J. Pierce, V. N. Waghmare, C. J. Rogers, A. Desai, P. W. Chee, O. L. May, J. R. Gannaway, J. F. Wendel, T. A. Wilkins, and A. H. Paterson. 2005. Genetic mapping and comparative analysis of seven mutants related to seed fiber development in cotton. *Theor. Appl. Genet.* 111:1137-1146.
- Waghmare, V. N., J. Rong, C. J. Rogers, G. J. Pierce, J. F. Wendel, and A. H. Paterson. 2005. Genetic mapping of a cross between *Gossypium hirsutum* (cotton) and the Hawaiian endemic, *G. tomentosum*. *Theoretical and Applied Genetics* 111: 665-676.



- Petrov, D. A. and J. F. Wendel. 2006. Genome evolution in eukaryotes: the genome size perspective. Pp 144-156, in: *Evolutionary Genetics: Concepts and Case Studies* (C. W. Fox and J. B. Wolf, Eds.). Oxford Univ. Press.
- Adams, K. L. and J. F. Wendel. 2005. Novel patterns of gene expression in polyploid plants. *Trends in Genetics* 21: 539-543.
- Rapp, R. and J. F. Wendel. 2005. Epigenetics and plant evolution. *New Phytologist* 168: 81-91.
- Adams, K. L. and J. F. Wendel. 2006. Allele-specific, bi-directional silencing of an alcohol dehydrogenase gene in different organs of interspecific cotton hybrids. *Genetics* 17: 2139-2142.
- Udall, J. A., J. Swanson, K. Haller, R.A. Rapp, M. Sparks, J. Hatfield, Y. Yu, Y. Wu, A.B. Arpat, B.A. Sickler, T.A. Wilkins, J.-Y. Guo, X.-Y. Chen, E. Taliercio, R. Turley, C. Dowd, H. McFadden, N. Klueva, P. Payton, R. Allen, D. Zhang, C. Haigler, C. Wilkerson, J. Suo, S.R. Schulze, M.L. Pierce, M. Essenberg, H. Kim, D.J. Llewellyn, E.S. Dennis, D. Kudrna, R. Wing, A.H. Paterson, C. Soderlund, and J.F. Wendel. 2006. A global assembly of cotton ESTs. *Genome Research* 16: 441-450.
- Álvarez, I. and J. F. Wendel. 2006. Ancient interspecific introgression and modern genetic differentiation within *Gossypium aridum* (Malvaceae) and its relatives. *Evolution* 60: 505-517.
- Senchina, D. S., L. E. Flagel, J. F. Wendel, and M. L. Kohut. 2006. Phenetic comparison of seven *Echinacea* species based on immunomodulatory characteristics. *Economic Botany* 60: 205-211.
- Udall, J. A., J. M. Swanson, D. Nettleton, R. J. Percifield, and J. F. Wendel. 2006. A novel approach for characterizing expression levels of genes duplicated by polyploidy. *Genetics* 173: 1823-1827.
- Keyte, A. L., R. Percifield, B. Liu, and J. F. Wendel. 2006. Intraspecific DNA methylation polymorphism in cotton (*Gossypium hirsutum* L.). *Journal of Heredity* 97: 444-450.
- Hawkins, J. S., H. Kim, J. D. Nason, R. A. Wing, and J. F. Wendel. 2006. Differential lineage-specific amplification of transposable elements is responsible for genome size variation in *Gossypium*. *Genome Research* 16: 1252-1261.
- Udall, J. A. and J. F. Wendel. 2006. Polyploidy and crop improvement. *The Plant Genome, a Supplement to Crop Science* 46: 3-14.
- Chen, Z. J., B. E. Scheffler, E. Dennis, B. Triplett, T. Zhang, X. Chen, D. M. Stelly, P. D. Rabinowicz, C. Town, T. Arioli, C. Brubaker, R. Cantrell, J.-M. Lacape, M. Ulloa, P. Chee, A. R. Gingle, C. Haigler, R. Percy, S. Saha, T. Wilkins, R. J. Wright, A. Van Deynze, Y. Zhu, S. Yu, W. Guo, I. Abdurakhmonov, I. Katageri, M. Rahman, Y. Zafar, J. Z. Yu, R. J. Kohel, J. Wendel, and A. H. Paterson. 2007. Towards sequencing cotton (*Gossypium*) genomes. *Plant Physiology* 145: 1303-1310.
- Fortune, P. M., K. A. Schierenbeck, A. K. Ainouche, J. Jacquemin, J. F. Wendel, and M.L. Ainouche. 2007. Evolutionary dynamics of *Waxy* and the origin of hexaploid *Spartina* species (Poaceae). *Molecular Phylogenetics and Evolution* 43:1040-1055.
- Udall, J. A., F. Cheung, A. W. Woodward, J. M. Swanson, L. Flagel, R. Hovav, R. A. Rapp, D. Nettleton, J. J. Lee, A. R. Gingle, C. Town, Z. J. Chen, and J. F. Wendel. 2007. Spotted cotton oligonucleotide microarrays for gene expression analysis. *BMC Genomics* 8:81.
- Grover, C. E., H. Kim, R. A. Wing, A. H. Paterson, and J. F. Wendel. 2007. Microcolinearity and genome size evolution in the *AdhA* region of diploid and polyploid cotton (*Gossypium*). *The Plant Journal* 50: 995-1006.
- Rong, J., A. Feltus, V. N. Waghmare, G. J. Pierce, P. W. Chee, X. Draye, Y. Saranga, R. J. Wright, T. A. Wilkins, O. L. May, J. R. Gannaway, J. F. Wendel, A. H. Paterson. 2007. Meta-analysis of polyploid cotton QTLs shows unequal contributions of subgenomes to a complex network of genes and gene clusters implicated in lint fiber development. *Genetics* 176: 2577-2588.
- Grover, C.E., J.S. Hawkins, and J.F. Wendel. 2007. Tobacco genome quickly goes up in smoke. *New Phytologist* 175: 599-602.
- Percifield, R., J. S. Hawkins, J. McCoy and J. F. Wendel. 2007. Genetic diversity in *Hypericum* and AFLP markers for species-specific identification of *H. perforatum* L. *Planta Medica* 73: 1614-1621.

- Hovav, R., J. A. Udall, E. Hovav, R. Rapp, L. Flagel, and J. F. Wendel. 2008. Gene expression during cellular differentiation of the single-celled cotton trichome (fiber). *Planta* 227: 319-329.
- 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
- 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, e25 doi:10.1371/journal.pgen.0040025.
- Flagel, L., J. A. Udall, D. Nettleton, and J. F. Wendel. 2008. Duplicate gene expression in allopolyploid *Gossypium* reveals two temporally distinct phases of expression evolution. *BMC Biology* 6:16 doi:10.1186/1741-7007-6-16.
- Grover, C. E., Y. Yu, R. A. Wing, A. H. Paterson, and J. F. Wendel. 2008. A phylogenetic analysis of indel dynamics in the cotton genus. *Molecular Biology and Evolution* 25: 1415–1428.
- Hawkins, J. S., C. E. Grover, and J. F. Wendel. 2008. Repeated big bangs and the expanding universe: directionality in plant genome size evolution. *Plant Science* 174: 557-562.
- Hovav, R., J. A. Udall, B. Chaudhary, R. Rapp, L. Flagel, and J. F. Wendel. 2008. Partitioned expression of duplicated genes during development and evolution of a single cell in a polyploid plant. *Proceedings of the National Academy of Sciences USA* 105: 6191-6195.
- Flagel, L., R. A. Rapp, C. E. Grover, M. P. Widrechner, J. H. Hawkins, J. L. Grafenberg, I. Alvarez, G. Y. Chung, and Jonathan F. Wendel. 2008. Phylogenetic, morphological, and chemotaxonomic incongruence in the North American endemic genus *Echinacea* Moench. *American Journal of Botany* 95: 756-765.
- Hovav, R., B. Chaudhary, J. A. Udall, L. Flagel, and J. F. Wendel. 2008. Parallel domestication, convergent evolution, and duplicate gene recruitment in allopolyploid cotton. *Genetics* 179: 1725-1733.
- Doyle, J. J., L. A. Flagel, A. H. Paterson, R. Rapp, D. E. Soltis, P.S. Soltis, and J. F. Wendel. 2008. Evolutionary genetics of genome merger and doubling in plants. *Annual Review of Genetics* 42: 443-461.
- Grover, C.E., J.S. Hawkins, and J.F. Wendel. 2008. Phylogenetic insights into the pace and pattern of plant genome size evolution. Pp 57-68 in: *Genome Dynamics, Volume 4, Genome Dynamics* (J-N Volff, ed). Karger Publishers, Basel, Switzerland.
- Chaudhary, B., R. Hovav, R. Rapp, N. Verma, J. A. Udall and J. F. Wendel. 2008. Global analysis of gene expression in cotton fibers from wild and domesticated *Gossypium barbadense*. *Evolution and Development* 10: 567-582.
- Butterworth, K. M., D. C. Adams, H. T. Horner and J. F. Wendel. 2009. Initiation and early development of fiber in wild and cultivated cotton. *International Journal of Plant Science* 170: 561-574.
- Rapp, R. A., J. A. Udall and Jonathan F. Wendel. 2009. Genomic expression dominance in allopolyploids. *BMC Biology* 7:18 doi:10.1186/1741-7007-7-18.
- Wendel, J. F., C. L. Brubaker, I. Alvarez, R. C. Cronn, and J. McD. Stewart. 2009. Evolution and natural history of the cotton genus. In: *Genomics of cotton*, Plant Genetics and Genomics; Crops and Models 3, pp. 3-22, A.H. Paterson (Ed.), Springer, New York.
- Adams, K. L., L. Flagel, and J. F. Wendel. 2009. Responses of the cotton genome to polyploidy. In: *Genomics of cotton*, Plant Genetics and Genomics; Crops and Models 3, pp. 419-429. A.H. Paterson (Ed.), Springer, New York.
- Chaudhary, B., L. Flagel, R. M. Stupar, J. A. Udall, N. Verma, N. M. Springer, and J. F. Wendel. 2009. Reciprocal silencing, transcriptional bias and functional divergence of homoeologs in polyploid cotton (*Gossypium*). *Genetics* 182: 503–517.
- Flagel L.F. and J.F. Wendel. 2009. Gene duplication and evolutionary novelty in plants. *New Phytologist* 183: 557-564.

- Flagel L.E., L. Chen, B. Chaudhary, and J.F. Wendel. 2009. Coordinated and fine-scale control of homoeologous gene expression in allotetraploid cotton. *Journal of Heredity* 100: 487-490.
- Chaudhary, B., R. Hovav, L. Flagel, R. Mittler and J. F. Wendel. 2009. Parallel expression evolution of oxidative stress-related genes in fiber from wild and domesticated diploid and polyploid cotton (*Gossypium*). *BMC Genomics* 10:378doi:10.1186/1471-2164-10-378
- Hawkins, J. S., R. A. Rapp, S. Proulx, and J. F. Wendel. 2009. Rapid DNA loss as a counterbalance to genome expansion through retrotransposon proliferation in plants. *Proceedings of the National Academy of Sciences* 106: 17811–17816.
- Bao, Y., J. F. Wendel, and S. Ge. 2010. Multiple patterns of rDNA evolution following polyploidy in *Oryza*. *Molecular Phylogenetics and Evolution* 55: 136-142.
- Betancur, L., B. Singh, R. A. Rapp, J. F. Wendel, M. D. Marks, A. W. Roberts and C. H. Haigler. 2010. Phylogenetically distinct cellulose synthase genes support secondary wall thickening in *Arabidopsis* shoot trichomes and cotton fiber. *Journal of Integrative Plant Biology* 52: 205-220.
- Flagel, L. E. and J. F. Wendel. 2010. Evolutionary rate variation and scope of duplicate gene expression evolution in five allotetraploid cotton species. *New Phytologist* 186: 184–193.
- Grover, C. E. and J. F. Wendel. 2010. Recent insights into mechanisms of genome size change in plants. *Journal of Botany* doi: 10.1155/2010/382732.
- Paterson, A. H., J. Rong, A. R. Gingle, P. W. Chee, E. Dennis, D. Llewellyn, L. S. Dure III, C. Haigler, G. O. Meyers, D. G. Peterson, M. ur Rahman, Y. Zafar, U. Reddy, Y. Saranga, J. McD. Stewart, J. A. Udall, V. N. Waghmare, J. F. Wendel, T. A. Wilkins, R. J. Wright, E. Zaki; E.-S. Hafez and J. Zhu. 2010. Sequencing and utilization of the *Gossypium* genomes. *Tropical Plant Biology* 3: 71-74
- Pleasant, J. M. and J. F. Wendel. 2010. Reproductive and pollination biology of the endemic Hawaiian cotton, *Gossypium tomentosum* (Malvaceae). *Pacific Science* 64: 45–55.
- Salmon, A., L. E. Flagel, B. Ying, J. A. Udall, and J. F. Wendel. 2010. Homoeologous gene conversion following allopolyploidy in cotton. *New Phytologist* 186: 123–134.
- Wendel, J. F., C. L. Brubaker, and T. Seelanan. 2010. The origin and evolution of *Gossypium*. Pp 1-18 in: Stewart, J.M.; Oosterhuis, D.; Heitholt, J.J.; Mauney, J.R. (Eds.), *Physiology of cotton*, Springer, Netherlands.
- Lin, L., G. J. Pierce, J. E. Bowers, J. C. Estill, R. O. Compton, L. K Nelson, C. Kim, C. Lemke, J. Rong, H. Tang, X. Wang, M. Braidotti, A. H. Chen, K. Collura, E. Epps, W. Golser, C. Grover, K. Chicola, J. Ingles, S. Karunakaran, D. Kudrna, J. Olive, N. Tabassum, E. Um, M. Wissotski, Y. Yu, A. Zuccolo, M. Rahman, D. G. Peterson, R. A. Wing, J. F. Wendel, and A. H. Paterson. 2010. A draft physical map of a D-genome cotton species (*Gossypium raimondii*). *BMC Genomics*, 11: 395.
- Hu, G., J. S. Hawkins, C. E. Grover, and J. F. Wendel. 2010. The history and disposition of transposable elements in polyploid *Gossypium*. *Genome* 53: 1-9.
- Rapp, R. A. C. H. Haigler, L. Flagel, R. H. Hovav, J. A. Udall and J. F. Wendel. 2010. Gene expression in developing fibers of Upland cotton (*Gossypium hirsutum* L.) was massively altered by domestication. *BMC Biology* 8: 139.
- Richards, C. L. and J. F. Wendel. 2011. The hairy problem of epigenetics in evolution. *New Phytologist* 191: 7–9
- Hu, G., N. L. Houston, D. Pathak, L. Schmidt, J. J. Thelen and J. F. Wendel. 2011. Genomically biased accumulation of seed storage proteins in allopolyploid cotton. *Genetics* 189: 1103–1115.
- Wendel, J. F., and M. M. Goodman. 2011. Stanley George Stephens. *Biographical Memoirs of the National Academy of Sciences*, 93: 1-22
- Bao, Y., G. Hu, L. Flagel, A. Salmon, M. Bezanilla, A. Paterson, Z. Wang, and J. F. Wendel. 2011. Convergent upregulation of the profilin gene family following independent domestication of diploid and allopolyploid cotton (*Gossypium*). *Proceedings of the National Academy of Sciences USA* 108: 21152–21157.

- Grover, C. E., A. Salmon, and J. F. Wendel. 2012. Targeted sequence capture as a powerful tool for evolutionary analysis. *American Journal of Botany* 99: 312–319.
- Grover, C. E., K. K. Grupp, R. J. Wanzek, and J. F. Wendel. 2012. Assessing the monophyly of polyploid *Gossypium* species. *Plant Systematics and Evolution* 298: 1177–1183
- Wendel, J. F., J. Greilhuber, J. Dolozel, and I. J. Leitch. 2012. *Plant Genome Diversity, Volume 1 Plant Genomes, Their Residents, and Their Evolutionary Dynamics* (17 chapters). Springer, Vienna.
- Adams, K. L., and J. F. Wendel. 2012. Dynamics of duplicated gene expression in polyploid cotton. In *Polyploid and Hybrid Genomics* (Z. J. Chen and J. Birchler, Eds.), Wiley Blackwell (in press).
- Flagel, L. E., J. A. Udall, and J. F. Wendel. 2012. Duplicate gene evolution, homoeologous recombination, and transcriptome characterization in allopolyploid cotton. *BMC Genomics* 13: 302; DOI: 10.1186/1471-2164-13-302
- Wendel, J. F., L. E. Flagel, and K. L. Adams. 2012. Jeans, genes, and genomes: cotton as a model for studying polyploidy. In *Polyploidy and Genome Evolution* (P. S. Soltis and D. E. Soltis, Eds). Springer, New York. Pp 181-207.
- Leitch, I. J., J. Greilhuber, J. Dolozel, and J. F. Wendel. 2012. *Plant Genome Diversity, Volume 2* (17 chapters). Springer, Vienna.
- Gong, L., A. Salmon, M. J. Yoo, K. Grupp, Z. Wang, A. H. Paterson and J.F. Wendel. 2012. The cytonuclear dimension of allopolyploid evolution: an example from cotton using rubisco. *Molecular Biology and Evolution* 29: 3023–3036
- Salmon, A., J. A. Joshua, J. A. Jeddelloh, and J. F. Wendel. 2012. Targeted capture of homoeologous coding and non-coding sequence in polyploid cotton. *G3: Genes, Genomes, Genetics* 2: 921-930
- Grover, C. E., J. P. Gallagher, E. P. Szadkowski, M. J. Yoo, L. E. Flagel and J. F. Wendel. 2012. Homoeolog expression bias and expression level dominance in allopolyploids. *The New Phytologist* 196: 966-971.
- 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. Romanel, 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. ur 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. Van 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, and J. Schmutz. 2012. Repeated polyploidization of *Gossypium* genomes and the evolution of spinnable cotton fibres. *Nature* 492: 423 – 428.
- Olson, K. M. and J. F. Wendel. 2013. A bountiful harvest: genomic insights into crop domestication phenotypes. *Annual Reviews of Plant Biology* 64: 47-70.
- Yoo, M.-J., E. Szadkowski, and J. F. Wendel. 2013. Homoeolog expression bias and expression level dominance in allopolyploid cotton. *Heredity* 110: 171-180.
- Madlung, A. and J. F. Wendel. 2013. Genetic and epigenetic aspects polyploid evolution in plants. *Cytogenetic and Genome Research* 140:270-285 (DOI: 10.1159/000351430).
- Hu, G., J. Koh, M.-J. Yoo, K. Grupp, S. Chen, and J. F. Wendel. 2013. Proteomic profiling of developing cotton fibers from wild and domesticated *Gossypium barbadense*. *The New Phytologist* 200: 570–582.
- Olson, K. M. and J. F. Wendel. 2013. Crop plants as models for understanding plant adaptation and diversification. *Frontiers in Plant Science*, 4: article 290 (doi: 10.3389/fpls.2013.00290).

- Page, J. T., M. D. Huynh, Z. S. Liechty, K. Grupp, D. Stelly, A. Hulse, H. Ashrafi, A. van Deynze, J. F. Wendel, and J. A. Udall. 2013. Insights into the evolution of cotton diploids and polyploids from whole-genome re-sequencing. *G3: Genes, Genomes, Genetics* 3:1809-1818.
- Gong, L., A. Kakrana, S. Arikkit, B. C. Meyers, and J. F. Wendel. 2013. Composition and expression of conserved microRNA genes in diploid cotton (*Gossypium*) species. *Genome Biology and Evolution* 5: 2449-2459.
- Panaud, O., S. A. Jackson, and J. F. Wendel. 2014. Drivers and dynamics of diversity in plant genomes. *The New Phytologist* 202: 15–18
- Yoo, M.-J. and J. F. Wendel. 2014. Comparative evolutionary and developmental dynamics of the cotton (*Gossypium hirsutum*) fiber transcriptome. *PLoS Genetics* 10(1): e1004073.
- Renny-Byfield, S., J. P. Gallagher, C. E. Grover, E. Szadkowski, J. T. Page, J. A. Udall, X. Wang, A. H. Paterson and J. F. Wendel. 2014. Ancient gene duplicates in *Gossypium* (cotton) exhibit near-complete expression divergence. *Genome Biology and Evolution* doi: 10.1093/gbe/evu037
- Xu, C., Y. B., X. Lin, N. Zhao, L. Hu, Z. Gong, J. F. Wendel, and B. Liu. 2014. Genome-wide disruption of gene expression in allopolyploids but not hybrids of rice subspecies. *Molecular Biology and Evolution* 31:1066–1076.
- Buggs, R. J. A., J. F. Wendel, J. J. Doyle, D. E. Soltis, P. S. Soltis and J. Coate. 2014. The legacy of diploid progenitors in allopolyploid gene expression patterns. *Philosophical Transactions of the Royal Society B* doi:10.1098/rstb.2013.0354.
- Ainouche, M. L. and J. F. Wendel. 2014. Polyploid speciation and genome evolution: Lessons from recent allopolyploids. In: P. Pontarotti (Ed.), *Evolutionary Biology, 17th Meeting 2013*. Springer-Verlag, Heidelberg 87-113.
- Crawford, D. J., J. J. Doyle, D. E. Soltis, P. S. Soltis, and J. F. Wendel. 2014. Introduction: Contemporary and future studies in plant speciation, morphological/floral evolution and polyploidy: honouring the scientific contributions of Leslie D. Gottlieb to plant evolutionary biology. *Philosophical Transactions of the Royal Society B* doi:10.1098/rstb.2013.0341
- Renny-Byfield, S., and J. F. Wendel. 2014. Doubling down on genomes: polyploidy and crop plants. *American Journal of Botany* 101: 1711-1725.
- Grover C. E., X. Zhu, K.K. Grupp, J. Jareczek, J. P. Gallagher., E. Szadkowski and J. F. Wendel. 2015. Molecular confirmation of species status for the allopolyploid cotton species, *Gossypium ekmanianum*. *Genetic Resources and Crop Evolution* 62: 103-114.
- Gong, L., M. Olson, and J. F. Wendel. 2014. Cytonuclear evolution of rubisco in four allopolyploid lineages. *Molecular Biology and Evolution* doi: 10.1093/molbev/msu207.
- Crawford, D. J., J. J. Doyle, D. E. Soltis, P. S. Soltis, and J. F. Wendel (Eds). 2014. Contemporary and future studies in plant speciation, morphological/floral evolution, and polyploidy: honouring the scientific contributions of Leslie D. Gottlieb to plant evolutionary biology. *Philosophical Transactions of the Royal Society B*, 369
- Zhang, H., B. Zhu, B. Qi, X. Gou, Y. Dong, C. Xu, B. Zhang, W. Huang, C. Liu, X. Wang, C. Yang, H. Zhou, K. Kashkush, M. Feldman, J. F. Wendel and B. Liu. 2014. Evolution of the BBAA component of bread wheat during its history at the allohexaploid level. *The Plant Cell* 26: 2761–2776.
- Shan, C.-M., X.-X. Shanguan, B. Zhao, X.-F. Zhang, L.-m. Chao, C.-Q. Yang, L.-J. Wang, H.-Y. Zhu, Y.-D. Zeng., W.-Z. Guo, B.-L. Zhou, G.-J. Hu, X.-Y. Guan, Z. J. Chen, J. F. Wendel, T.-Z. Zhang and X.-Ya Chen. 2014. Control of cotton fibre elongation by a homeodomain transcription factor GhHOX3. *Nature Communications* 5. doi:10.1038/ncomms6519.
- Stewart, J. MacD., L. A. Craven, C. Brubaker, and J. F. Wendel. 2014. *Gossypium anapoides* (Malvaceae), a new species from Western Australia. *Novon* 23:447–451.
- Hu, G., J. Koh, M.-J. Yoo, D. Pathak, S. Chen, and J. F. Wendel. 2014. Cotton domestication and comparative evolutionary proteomics. *Planta*. 240:1237–1251.

- Masonbrink, E. R., J. P. Gallagher, J. J. Jareczek, S. Renny-Byfield, C. E. Grover, L. Gong, and J. F. Wendel. 2015. CenH3 evolution in diploids and polyploids of three angiosperm genera. *BMC Plant Biology*, 14:1588, DOI: 10.1186/s12870-014-0383-3.
- Renny-Byfield, S., L. Gong, J. P. Gallagher and J. F. Wendel. 2015. Persistence of sub-genomes in paleopolyploid cotton after 60 million years of evolution. *Molecular Biology and Evolution* 32: 1063-1071.
- Grover C. E., X. Zhu, K.K. Grupp, J. Jareczek, J. P. Gallagher., E. Szadkowski and J. F. Wendel. 2015. Molecular confirmation of species status for the allopolyploid cotton species, *Gossypium ekmanianum*. *Genetic Resources and Crop Evolution* 62: 103-114.
- Wendel, J. F. and C. E. Grover, 2015. Taxonomy and evolution of the cotton genus. In: D. Fang and R. Percy (Eds.), *Cotton*, Agronomy Monograph 24, pp. 25-44, ASA-CSSA-SSSA, Madison, WI.
- 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 (*Gossypium hirsutum*). *The Plant Genome* 8: doi: 10.3835/plantgenome2014.08.0041.
- Gong, L., R. E. Masonbrink, C. E. Grover, S. Renny-Byfield, and J. F. Wendel. 2015. A cluster of recently inserted transposable elements associated with siRNAs in *Gossypium raimondii*. *The Plant Genome* doi:10.3835/plantgenome2014.11.0088.
- Grover, C. E., J. P. Gallagher, and J. F. Wendel. 2015. The flowering time network of cotton (*Gossypium*). *The Plant Genome* doi:10.3835/plantgenome2014.12.0098.
- 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.
- Paterson, A. H., and J. F. Wendel. 2015. Unraveling the fabric of polyploidy. *Nature Biotechnology* 33: 491 – 493.
- Li, L.-F., B. Liu, K. Olsen, and J. F. Wendel. 2015. A re-evaluation of the homoploid hybrid origin of *Aegilops tauschii*, the donor of the wheat D-subgenome. *The New Phytologist* 208: 4-8.
- Grover, C. E., J. P. Gallagher, J. J. Jareczek, J. T. Page, J. A. Udall, M. A. Gore, and J. F. Wendel. 2015. Re-evaluating the phylogeny of allopolyploid *Gossypium* L. *Molecular Phylogenetics and Evolution* 92: 45-52.
- Li, L.-F., B. Liu, K. Olsen, and J. F. Wendel. 2015. Multiple rounds of ancient and recent hybridizations have occurred within the *Aegilops-Triticum* complex. *The New Phytologist* 208: 11-12.
- Wendel, J. F. 2015. The wondrous cycles of polyploidy in plants. *American Journal of Botany* 102: 1753 – 1756.
- Tang, M., Z. Chen, C. E. Grover, Y. Wang, S. Li, G. Liu, Z. Ma, J. F. Wendel, and J. Hua. 2015. Rapid evolutionary divergence of *Gossypium barbadense* and *G. hirsutum* mitochondrial genomes. *BMC Genomics* 16:770.
- Wendel, J. F., S. A. Jackson, B. C. Meyers, and R. A. Wing. 2016. Evolution of plant genome architecture. *Genome Biology* 17:37, DOI: 10.1186/s13059-016-0908-1.
- Casacuberta, J. M., S. Jackson, O. Panaud, M. Purugganan and J. F. Wendel. 2016. Evolution of plant phenotypes, from genomes to traits. *Genes, Genomes, and Genomics*, doi:10.1534/g3.115.025502.
- Gallagher, J. P., C. E. Grover, G. Hu, and J. F. Wendel. 2016. Insights into the ecology and evolution of polyploid plants through network analysis. *Molecular Ecology* 25: 2644–2660.
- Renny-Byfield, S., J. T. Page, J. A. Udall, W. S. Sanders, D. G. Peterson, M. A. Arick, C. E. Grover and J. F. Wendel. 2016. Independent domestication of two Old World cotton species. *Genome Biology and Evolution* doi: 10.1093/gbe/evw129.
- Chen, Z., K. Feng, C. E. Grover, P. Li, F. Liu, Y. Wang, Q. Xu, M. Shang, Z. Zhou, X. Cai, X. Wang, J. F. Wendel, K. Wang, and J. Hua. 2016. Chloroplast DNA structural variation, phylogeny, and age of divergence among diploid cotton species. *PLoS ONE* DOI:10.1371/journal.pone.0157183.

- Chee, P. W., A. H. Paterson, J. A. Udall, and J. F. Wendel. 2016. Interspecific hybridization for upland cotton improvement. In Mason, A. (Ed.), *Polyploidy and interspecific hybridisation for crop improvement*. CRC Press.
- Han, J., R. Masonbrink, W. Shan, F. Song, J. Zhang, W. Yu, K. Wang, Y. Wu, T. Yufeng, H. Tang, J. Wendel, and K. Wang. 2016. Rapid proliferation and nucleolar organizer targeting centromeric retrotransposons in cotton. *The Plant Journal* doi: 10.1111/tpj.13309.
- Snodgrass, S.J., J. Jareczek, and J.F. Wendel. 2017. An examination of nucleotypic effects in diploid and polyploid cotton. *Annals of Botany Plants* 9: DOI: <https://doi.org/10.1093/aobpla/plw082>.
- Hu, G., R. Hovav, C. E. Grover, A. Faigenboim-Doron, N. Kadmon, J.T. Page, J. A. Udall and J. F. Wendel. 2017. Evolutionary conservation and divergence of gene co-expression networks in *Gossypium* (cotton) seeds. *Genome Biology and Evolution* 8: 3765-3783.
- Hinze, L. L., A. M. Hulse-Kemp, I. W. Wilson, Q.-H. Zhu, D. J. Llewellyn, J. M. Taylor, A. Spriggs, D. D. Fang, M. Ulloa, J. J. Burke, M. Giband, J.-M. Lacape, A. Van Deynze, J. A. Udall, J. A. Scheffler, S. Hague, J. Wendel, A. E. Pepper, J. Frelichowski, C. T. Lawley, D. C. Jones, R. G. Percy, and D. M. Stelly. 2017. Diversity analysis of cotton (*Gossypium hirsutum* L.) germplasm using the CottonSNP63K Array. *BMC Plant Biology* 17: 37, DOI 10.1186/s12870-017-0981-y
- Chen, Z., H. Nie, C. E. Grover, Y. Wang, P. Li, M. Wang, H. Pei, Y. Zhao, S. Li, J. F. Wendel, and J. Hua. 2017. Entire nucleotide sequences of *Gossypium raimondii* and *G. arboreum* mitochondrial genomes revealed A-genome species as cytoplasmic donor of the allotetraploid species. *Plant Biology* 19: 484-493.
- Gallagher, J.P., C. E. Grover, K. Rex, M. Moran, and J. F. Wendel. 2017. A new species of cotton from the Wake Atoll, *Gossypium stephensii* (Malvaceae). *Systematic Botany* 42:115-123.
- Grover, C. E., J. P. Gallagher, E. P. Szadkowski, J. T. Page, M. A. Gore, J. A. Udall and J. F. Wendel. 2017. Nucleotide diversity in the two co-resident genomes of allopolyploid cotton. *Plant Systematics and Evolution* DOI 10.1007/s00606-017-1411-1.
- Chen, Z., P. Li, C. E. Grover, Y. Wang, C. Hu, M. Wang, H. Nie, H. Pei, Y. Su, Y. Zhao, F. Liu, Z. Zhou, X. Cai, X. Wang, K. Wang, J. F. Wendel, and J. Hua. 2017. Molecular evolution of the plastid genome during diversification of the cotton genus. *Molecular Phylogenetics and Evolution* 112: 268–276.
- Wang, X., Z. Zhang, T. Fu, L. Hu, C. Xu, L. Gong, J. F. Wendel and B. Liu. 2017. Gene-body CG methylation and divergent expression of duplicate genes in rice. *Scientific Reports* 7: 2675. DOI:10.1038/s41598-017-02860-4.
- Chen, Z., N. Zhao, S. Li, C. E. Grover, H. Nie, J. F. Wendel and J. Hua. Plant mitochondrial genome evolution and cytoplasmic male sterility. 2017. *Critical Reviews in Plant Sciences* (doi.org/10.1080/07352689.2017.1327762).
- Lewis, D. Q., and Wendel, J. F. 2017. Lynn G. Clark—Recipient of the 2016 Peter Raven Award. *Systematic Botany* 42: 4-5.
- Rousseau, H., M. Rousseau-Gueutin, X. Dauvergne, J. Boutte, G. Simon, N. Marnet, A. Bouchereau, S. Vacher-Guiheneuf, J. Bazureau, J. Morice, S. Ravanel, F. Cabello-Hurtado, A. Ainouche, A. Salmon, and J. Wendel. 2017. Evolution of DMSP (dimethylsulfoniopropionate) biosynthesis pathway: Origin and phylogenetic distribution in polyploid *Spartina* (Poaceae, Chloridoideae). *Molecular Phylogenetics and Evolution* 114: 401–414.
- Sun, Y., Y. Wu, C. Yang, S. Sun, X. Lin, L. Liu, C. Xu, J. Wendel, L. Gong, and B. Liu. 2017. Segmental allotetraploidy generates extensive homeologous expression rewiring and phenotypic diversity at the population level in rice. *Molecular Ecology* DOI: 10.1111/mec.14297.
- Sharbrough, J, J. L. Conover, J. A. Tate, J. F. Wendel and D. B. Sloan. 2017. Cytonuclear responses to genome doubling. *American Journal of Botany* 104: 127 – 128.
- Grover, C. E., M. A. Arick, J. L. Conover, A. Thrash, G. Hu, W. S. Sanders, C.-Y Hsu, R. Z. Naqvi, M. Farooq, X. Li, L. Gong, J. Mudge, T. Ramaraj, J. A. Udall, D. G. Peterson, and J. F. Wendel. 2018. Comparative genomics of an unusual biogeographic disjunction in the cotton tribe

- (*Gossypieae*) yields insights into genome downsizing. *Genome Biology and Evolution* 9: 3328–3344.
- Wendel, J. F., D. Lisch, G. Hu, and A. S. Mason. 2018. The long and short of doubling down: polyploidy, epigenetics, and the temporal dynamics of genome fractionation. *Current Opinion in Genetics and Development* 49:1–7.
- Zhao, B., J.-F. Cao, G. Hu, Z. W. Chen, L.-Y. Wang, X.-X. Shangguan, L.-J. Wang, Y.-B. Mao, T. Zhang, J. F. Wendel, and X.-Y. Chen. 2018. Core cis-element variation confers subgenome-biased expression of a transcription factor that functions in cotton fiber elongation. *New Phytologist* 18: 1061-1075.
- Bottani, S., N. Radu Zabet, J. F. Wendel and R. A. Veitia. 2018. Gene expression dominance in allopolyploids: hypotheses and models. *Trends in Plant Science* <https://doi.org/10.1016/j.tplants.2018.01.002>.
- Wang, K., J. F. Wendel, and J. Hua. 2018. Designations for individual genomes and chromosomes in *Gossypium*. *Journal of Cotton Research* 1:3-7, <https://doi.org/10.1186/s42397-018-0002-1>.
- Hu, G. and J. F. Wendel. 2019. Cis-trans controls and regulatory novelty accompanying allopolyploidization. *New Phytologist* 221: 1691–1700.
- Li, C., X. Sun, J. L. Conover, Z. Zhang, J. Wang, X. Wang, X. Deng, H. Wang, B. Liu, J. F. Wendel and L. Gong. 2019. Cytonuclear coevolution following homoploid hybrid speciation in *Aegilops tauschii*. *Molecular Biology and Evolution* 36:341–349 <https://doi.org/10.1093/molbev/msy215>.
- Grover, C. E., M. A. Arick, A. Thrash, J. L. Conover, W. S. Sanders, D. G. Peterson, J. E. Frelichowski, J. A. Scheffler, B. E. Scheffler, and J. F. Wendel. 2019. Insights into the evolution of the New World diploid cottons (*Gossypium*, subgenus *Houzingenia*) based on genome sequencing. *Genome Biology and Evolution* 11: 53–71.
- Conover, J. L., N. Karimi, N. Stenz, C. Ané, C. E. Grover, C. Skema, J. A. Tate, K. Wolff, S. Logan, J. F. Wendel, and D. A. Baum. 2019. A Malvaceae mystery: a mallow maelstrom of genome multiplications and maybe misleading methods? *Journal of Integrative Plant Biology* 61:12-31.
- Li, N., C. Xu, A. Zhang, R. Liu, X. Meng, X. Lin, L. Gong, J. F. Wendel and B. Liu. 2019. DNA methylation due to repatterning accompanying separate and combined effects of hybridization, whole genome doubling and homoeolog exchange in nascent segmental rice allotetraploids. *The New Phytologist* 223: 979–992.
- Hu, L., Z. Xu, M. Wang, D. Yuan, R. Fan, B. Wu, H. Wu, X. Qin, L. Yan, L. Tan, S. Sim, W. Li, C. A. Sasaki, H. Daniell, J. F. Wendel, K. Lindsey, X. Zhang, C. Hao and S. Jin. The chromosome-scale reference genome of black pepper (*Piper nigrum* L.) provides further insight into piperine biosynthesis. 2019. *Nature Communications* 10: 4702, [doi.org/10.1038/s41467-019-12607-6](https://doi.org/10.1038/s41467-019-12607-6).
- Udall, J.A., E. Long, C. Hanson, D. Yuan, T. Ramaraj, J. L. Conover, L. Gong, M. A. Arick, C. E. Grover, D. G. Peterson, and J. F. Wendel. 2019. *De novo* genome sequence assemblies of *Gossypium raimondii* and *G. turneri*. *Genes, Genomes, and Genomics* 9: 3079-3085.
- Zhao, N., C. E. Grover, Z. Chen, J. F. Wendel, and J. Hua. Intergenomic gene transfer (IGT) and allopolyploidization in *Gossypium*. 2019. *BMC Plant Biology* 19:492.
- Udall, J.A., E. Long, T. Ramaraj, J. L. Conover, D. Yuan, C. E. Grover, L. Gong, M. A. Arick, R. E. Masonbrink, D. G. Peterson, and J. F. Wendel. 2019. Comparative genomics implicates a breakage-fusion-bridge mechanism for descending dysploidy in plants. *Frontiers in Plant Science* 10:1541.
- Bao, Y., G. Hu, C.E. Grover, J. Conover, D. Yuan, and J. F. Wendel. 2019. Unraveling *cis* and *trans* regulatory evolution during cotton domestication. *Nature Communications* 10.1038/s41467-019-13386-w.
- Garcia, S., J.F. Wendel, N. Borowska-Zuchowska, M. Aïnouche, J. Lunerova and A. Kovarik. 2020. The utility of graph clustering for the identification of evolutionary fates of 5S rDNA homoeologs in plant allopolyploids and hybrids. *Frontiers in Plant Science* 11:41.



- Grover, C. E., M. Yoo, M. A. Gore, D. B. Harker, R. L. Byers, A. E. Lipka, G. Hu, D. Yuan, J. L. Conover, J. A. Udall, A. H. Paterson, and J. F. Wendel. 2020. Genetic analysis of the transition from wild to domesticated cotton (*G. hirsutum*). *Genes, Genomes, and Genetics* 10:731-754.
- Rousseau-Guetin, M. and J. F. Wendel. 2020. Barbara McClintock, a pioneer in the study of polyploidy. *In Perspectives on Nobel Laureate Barbara McClintock's publications (1926-1984): A Companion Volume* (Lee B. Kass, Ed.)
- Dong, Y., G. Hu, J. Yu, S. W. Thu, C. E. Grover, S. Zhu, and J. F. Wendel. 2020. Salt tolerance in diploid and polyploid cotton (*Gossypium*) species. *The Plant Journal* 101: 1135-1151.
- Grover, C. E., M. Pan, D. Yuan, M. A. Arick, G. Hu, L. Brase, D. Stelly, Z. Lu, R. J. Schmitz, D. G. Peterson, J. F. Wendel, and J. A. Udall. 2020. The *Gossypium longicalyx* genome as a resource and implications for cotton breeding and evolution. *Genes, Genomes, and Genetics* doi:10.1534/g3.120.401050.
- Hu, G., C. E. Grover, M. A. Arick, M. Liu, D. G. Peterson, and J. F. Wendel. 2020. Homoeologous gene expression and co-expression network analyses and evolutionary inference in allopolyploids. *Briefings in Bioinformatics* doi: 10.1093/bib/bbaa035.
- Karimi, N., C. E. Grover, J. P. Gallagher, J. F. Wendel, C. Ané, and D. A. Baum. Reticulate evolution helps explain apparent homoplasy in floral biology and pollination in baobabs (*Adansonia*; Bombacoideae; Malvaceae). 2020. *Systematic Biology* 69: 462–478, 2020.
- Chen, Z. J., A. Sreedasyam, A. Ando, Q. Song, L. M. De Santiago, A. M. Hulse-Kemp, M. Ding, W. Ye, R. C. Kirkbride, J. Jenkins, C. Plott, J. Lovell, Y.-M. Lin, R. Vaughn, B. Liu, L. Wen, S. Simpson, B. E. Scheffler, C. A. Sasaki, C. E. Grover, G. Hu, J. Conover, J. Carlson, S. Shu, L. B. Boston, M. Williams, D. G. Peterson, K. McGee, D. C. Jones, J. F. Wendel, D. M. Stelly, J. Grimwood, and J. Schmutz. 2020. Genomic diversifications of five *Gossypium* allopolyploid species and their impact on cotton improvement. *Nature Genetics* <https://doi.org/10.1038/s41588-020-0614-5>.
- Cao J.-F., Zhao B., Huang C.-C., Chen Z.-W., Zhao T., Liu H.-R., Hu G.-J., Shangguan X.-X., Shan C.-M., Wang L.-J., Zhang T.-Z., Wendel J.F., Guan X.-Y., and Chen X.-Y. 2020. The miR319-targeted *ghtcp4* promotes the transition from cell elongation to wall thickening in cotton fiber. *Molecular Plant* 13: 1063–1077.
- Chen, Z., J. Zhao, J. Qiao, W. Li, J. Li, R. Xu, Z. Liu, B. Xing, J. F. Wendel, and C. E. Grover. 2020. Comparative analysis of codon usage between *Gossypium hirsutum* and *G. barbadense* mitochondrial genomes. *Mitochondrial DNA, part B*, 56: 2500–2506.
- Li, C., X. Wang, Y. Xiao, X. Sun, J. Wang, X. Yang, Y. Sun, Y. Sha, R. Lv, Y. Yu, B. Ding, Z. Zhang, N. Li, T. Wang, J. F. Wendel, B. Liu, and L. Gong. 2020. Cytonuclear co-evolution of rubisco small subunits and plastid translocons accompanying sequential allopolyploidy events in *Triticum*. *Molecular Biology and Evolution* 37:3409–3422.
- Nieto-Feliner, G., J. Casacuberta, and J. F. Wendel. 2020. Genomics of evolutionary novelty in hybrids and polyploids. *Frontiers in Genetics* doi: 10.3389/fgene.2020.00792.
- Escudero, M. and J. F. Wendel. 2020. The grand sweep of chromosomal evolution in angiosperms. *The New Phytologist* 228: 805–808.
- Gallagher, J. P., G. Hu, C. E. Grover, J.J. Jareczek and J. F. Wendel. 2020. Effects of genome duplication and domestication on the fiber gene coexpression network of *Gossypium hirsutum* L. *Genes, Genomes and Genetics* 10: 2879-2892.
- Cao, J., J. Huang, C. Huang, X. Zhang, X. Shangguan, L. Wang, J. F. Wendel, C. E. Grover and Z. Chen. 2020. Genome-wide characterization of the miR396-targeted GRF family genes and their roles in response to salt stresses in *Gossypium hirsutum*. *BMG Genomics* 21:575, <https://doi.org/10.1186/s12864-020-06986-0>.
- Mason, A.S., and J. F. Wendel. 2020. Homoeologous exchanges, segmental allopolyploidy and polyploid diversification. *Frontiers in Genetics* 11:1014, doi: 10.3389/fgene.2020.01014
- Wu, Y., F. Lin, Y. Zhou, J. Wang, S. Sun, B. Wang, Z. Zhang, G. Li, X. Lin, C. Xu, X. Wang, Y. Sun, S. Huang, Z.-Yi Xu, L. Gong, J. F. Wendel, Z. Zhang and B. Liu. 2020. Genomic mosaicism

- in nascent allopolyploids created by homoeologous exchange rapidly generates phenotypic variation. *National Science Review* <https://doi.org/10.1093/nsr/nwaa277>.
- Yuan, D., C. E. Grover, G. Hu, M. Pan, E. R. Miller, J. L. Conover, S. P. Hunt, J. A. Udall, and J. F. Wendel. 2021. Parallel and intertwining threads of domestication in allopolyploid cotton (*Gossypium*). *Advanced Science* DOI: 10.1002/advs.202003634.
- Hu, G., C. E. Grover, D. Yuan, Y. Dong, E. Miller, J. L. Conover, J. F. Wendel. 2021. Evolution and diversity of the cotton genome. In: *Cotton Precision Breeding* (Mehboob-ur-Rahman, Yusuf Zafar and Tianzhen Zhang, Eds.), pp. 25-78. ISBN 978-3-030-64504-5, Springer.
- Sun, Y., Y. Wu, Y. Wang, S. Wang, G. Li, X. Wang, X. Zhang, Z. Liang, J. Li, L. Gong, J. F. Wendel, D. Wang, and B. Liu. 2021. Homoploid F1 hybrids and segmental allotetraploids of rice subspecies are similarly more tolerant to N-deficiency than are parental lines. *Journal of Experimental Botany* <https://doi.org/10.1093/jxb/erab184>.
- Wang, M., J. Li, P. Wang, F. Liu, Z. Liu, G. Zhao, Z. Xu, L. Pei, C. E. Grover, J. F. Wendel, K. Wang, and X. Zhang. 2021. Comparative genome analyses highlight transposon-mediated genome expansion and the evolutionary architecture of 3D genomic folding in cotton. *Molecular Biology and Evolution* 38:3621–3636.
- Conover, J. L., J. Sharbrough, and J. F. Wendel. 2021. pSONIC: Ploidy-aware Syntenic Orthologous Networks Identified via Collinearity. *Genes, Genomes and Genetics* <https://doi.org/10.1093/g3journal/jkab170>.
- Grover, C. E., D. Yuan, M. A. Arick II, E. R. Miller, G. Hu, D. G. Peterson, J. F. Wendel, and J. A. Udall. 2021. The *Gossypium stocksii* genome as a novel resource for cotton improvement. *Genes, Genomes and Genetics* <https://doi.org/10.1093/g3journal/jkab125>.
- Glombik M., Copetti D, Bartos, J., Stoces, S., Yates, S., Zwierzykowski, Z, Ruttink, T., Wendel J.F., Dolezel J., Studer B., and D. Kopecky. 2021. Reciprocal allopolyploid grasses (*Festuca* × *Lolium*) display stable patterns of genome dominance. *The Plant Journal* 107, 1166–1182, doi: 10.1111/tpj.15375.
- Gyorfy, M. F., E. Miller, J. Conover, C. Grover, J. Wendel, D. Sloan, and J. Sharbrough. 2021. Nuclear-cytoplasmic balance: whole genome duplications induce elevated organelle genome copy number. *The Plant Journal* 108, 219–230, doi: 10.1111/tpj.15436.
- Nie, H., Y. Wang, C. Wei, C. E Grover, Y. Su, J. F. Wendel and J. Hua. 2021. Embryogenic calli induction and salt stress response revealed by RNA-Seq in diploid wild species *Gossypium sturtianum* and *G. raimondii*. *Frontiers in Plant Science* <https://doi.org/10.3389/fpls.2021.715041>.
- Grover, C. E., D. Yuan, M. A. Arick II, E. R. Miller, G. Hu, D. G. Peterson, J. F. Wendel, and J. A. Udall. 2021. The *Gossypium anomalum* genome as a resource for cotton improvement and evolutionary analysis of hybrid incompatibility. *Genes, Genomes and Genetics* <https://doi.org/10.1093/g3journal/jkab319>.
- Zhao, N., W. Wang, C. E. Grover, K. Jiang, Z. Pan, B. Guo, J. Zhu, Y. Su, C. Cheng, M. Wang, A. Guo, L. Xiao, J. Yang, D. Iyaah, X. Ning, H. Nie, H. Xu, A. Alifu, P. Li, J. Geng, J. F. Wendel, J. Kong and J. Hua. 2021. Genomic and GWAS analyses demonstrate phylogenomic relationships of *Gossypium barbadense* in China and selection for fiber length, lint percentage, and *Fusarium* wilt resistance *Plant Biotechnology*, <https://doi.org/10.1111/pbi.13747>.
- Karimi, N., C. E. Grover, Joseph P. Gallagher, J. L. Conover, E. R. Miller, J. F. Wendel, and D. A. Baum. 2022. Genetic diversity of Malagasy baobabs inferred by phased alleles from targeted sequence capture. *Adansonia* 6: 37-47 <https://doi.org/10.5252/adansonia2022v44a6>.
- Conover, J. L. and J. F. Wendel. 2022. Deleterious mutations accumulate faster in allopolyploid than diploid cotton (*Gossypium*) and unequally between subgenomes. *Molecular Biology and Evolution* <https://doi.org/10.1093/molbev/msac024>.
- Zhao, N., W. Wang, C. E. Grover, K. Jiang, Z. Pan, C. Zhao, J. Zhu, D. Li, M. Wang, C. Cheng, L. Xiao, B. Li, J. Yang, X. Ning, H. Xu, Y. Su, A. Alifu, P. Li, B. Guo, J. F. Wendel, J. Kong and J.

- Hua. 2022. A calmodulin-like gene (*GbCML7*) improves both fiber strength and yield in *Gossypium barbadense*. <https://doi.org/10.3389/fpls.2021.815648>.
- Sharbrough, J., J. L. Conover, M. F. Gyorfy, C. E. Grover, E. R. Miller, J. F. Wendel, and D. B. Sloan. 2022. Global patterns of subgenome evolution in organelle-targeted genes of six allotetraploid angiosperms. *Molecular Biology and Evolution* doi.org/10.1093/molbev/msac074.
- Wang, Z., X. Wang, T. Lu, M. Li, P. Jiang, J. Zhao, S. Liu, X. Qi Fu, J. F. Wendel, Y. Van de Peer, B. Liu, and L. Li. 2022. Repatterning of the ancestral eudicot genome and its role in shaping chromatin topology and epigenetic modification in modern *Panax* genomes. *Nature Communications* <https://doi.org/10.1038/s41467-022-29561-5>.
- Forsythe, E. S., C. E. Grover, E. R. Miller, J. L. Conover, M. A. Arick II, C. Chavarro, S. C. M. Leal-Bertioli, D. G. Peterson, J. Sharbrough, J. F. Wendel, and D. B. Sloan. 2022. Organellar transcripts dominate the cellular mRNA pool across plants of varying ploidy levels. *Proceedings of the National Academy of Sciences (USA)* <https://doi.org/10.1073/pnas.2204187119>.
- Dong, Y., G. Hu, C. E. Grover, E. R. Miller, S. Zhu, and J. F. Wendel. 2022. Parental legacy versus regulatory innovation in salt stress responsiveness of allopolyploid cotton (*Gossypium*) species. *The Plant Journal* doi: 10.1111/tpj.15863.
- Ramaraj, T., C. E. Grover, A. Mendoza, M. A. Arick, J. J. Jareczek, Alexis G. Steinhoff, D. G. Peterson, J. F. Wendel, and J. A. Udall. 2022. The *Gossypium herbaceum* L. Wagad genome as a resource for understanding cotton domestication. *Genes, Genomes and Genetics* (in press).
- Li, C., B. Ding, X. Ma, X. Yang, Y. Dong, Z. Zhang, J. Wang, X. Li, Y. Yu, B. Liu, J. F. Wendel, Y. Li, T. Wang, and L. Gong. 2022. A temporal gradient of cytonuclear coordination of chaperonins and chaperones during RuBisCo biogenesis in allopolyploid plants. *Proceedings of the National Academy of Science* <https://doi.org/10.1073/pnas.2200106119>.
- Peng, R., Y. Xu, L. S. Tian, T. Unver, Z. Liu, Chen, Z. Zhou, X. Cai, K. Wang, Y. Wei, Y. Liu., H. Wang, G. Hu, Z. Zhang, C. E. Grover, Y. Hou, Y. Wang, P. Li, T. Wang, Q. Lu, Y. Wang, J. L. Conover, Q. Wang, B. Zhang, M. Van Montagu, Y. Van de Peer, J. F. Wendel, and F. Liu. Evolutionary divergence of duplicated genomes in newly described allotetraploid cottons. 2022. *Proceedings of the National Academy of Sciences (USA)* <https://doi.org/10.1073/pnas.2208496119>.
- Grover, C. E., E. S. Forsythe, J. Sharbrough, E. R. Miller, J. L. Conover, R. A. DeTar, C. Chavarro, M. A. Arick II, D. G. Peterson, S. C. M. Leal-Bertioli, D. B. Sloan, and J. F. Wendel. 2022. Variation in cytonuclear expression accommodation among allopolyploid plants. *Genetics* <https://doi.org/10.1093/genetics/iyac118>.
- Wang, M., J. Li, Z. Qi, Y. Long, L. Pei, X. Huang, C. E. Grover, X. Du, C. Xia, P. Wang, Z. Liu, J. You, X. Tian, Y. Ma, R. Wang, X. Chen, X. He, D. D Fang, Y. Sun, L. Tu, S. Jin, L. Zhu, J. F. Wendel and X. Zhang. 2022. Genomic innovation and regulatory rewiring during evolution of the cotton genus (*Gossypium*). *Nature Genetics* <https://doi.org/10.1038/s41588-022-01237-2>.
- Hu, Z. Xu, R. Fan, G. Wang, F. Wang, X. Qin, L. Yan, X. Ji, M. Meng, S. Sim, X. Zhang, W. Chen, C. Hao, Q. Wang, S. Zhu, P. Xu, H. Zhao, K. Lindsey, H. Daniel, J. F. Wendel and S. Jin. 2022. The complex genome and adaptive evolution of polyploid Chinese pepper (*Zanthoxylum armatum* and *Zanthoxylum bungeanum*). *Plant Biotechnology Journal* <https://doi.org/10.1111/pbi.13926>.
- Zhang, K., J. Li, G. Li, Y. Zhang, W. Sun, J. Wang, J. Yao, Y. Ma, H. Wang, Z. Zhang, T. Wang, K. Xie, J. F. Wendel, B. Liu, and L. Gong. 2022. Compensatory genetic and transcriptional cytonuclear coordination in allotetraploid lager yeast (*Saccharomyces pastorianus*). *Molecular Biology and Evolution* <https://doi.org/10.1093/molbev/msac228>.
- Grover, C. E., M. A. Arick, A. Thrash, J. Sharbrough, G. Hu, D. Yuan, E. R. Miller, T. Ramaraj, D. G. Peterson, J. A. Udall, and J. F. Wendel. 2022. Dual domestication, diversity, and differential introgression in Old World cotton diploids. *Genome Biology and Evolution* <https://doi.org/10.1093/gbe/evac170>.

- Li, X., J. Wang, Y. Yu, J. Wang, C. Li, Z. Zeng, N. Li, Z. Zhang, Q. Dong, Y. Yu, X. Wang, T. Wang, C. E. Grover, B. Liu, J. F. Wendel, and L. Gong. 2023. Genomic rearrangements and evolutionary changes in 3D chromatin topologies in the cotton tribe (*Gossypieae*). *BMC Biology* 10.1186/s12915-023-01560-y.
- Viot, C. R. and J. F. Wendel. 2023. Evolution of the cotton genus *Gossypium* and its domestication in the americas: a review. *Critical Reviews in Plant Science* 10.1080/07352689.2022.2156061.
- Meng, Q., J. Gu, J. Zhang, J. Tang, A. Wang, P. Wang, Z. Liu, Y. Rong, P. Xie, L. Hui, J. A. Udall, C. E. Grover, J. F. Wendel, X. Zhang and D. Yuan. 2023. Comparative analysis of genome sequences of the two cultivated tetraploid cottons, *Gossypium hirsutum* (L.) and *G. barbadense* (L.). *Industrial crops and products* <https://doi.org/10.1016/j.indcrop.2023.116471>.
- Jareczek, J., C. E. Grover, and J. F. Wendel. 2023. Cotton fiber as a model for understanding shifts in cell development under domestication. *Frontiers in Plant Science* <https://doi.org/10.3389/fpls.2023.1146802>.
- Zhao, J., J. Li, R. Lv., B. Wang, T. Yu, S. Liu, H. Xun, C. Xu, Z.-Y. Xu, J. F. Wendel and B. Liu. 2023. Meiotic pairing irregularity and homoeologous chromosome compensation cause rapid variation in synthetic allotetraploid wheat. *New Phytologist* (in press).
- You, J., Z. Liu, Z. Qi, Y. Ma, M. Sun, L. Su, H. Niu, Y. Peng, X. Luo, M. Zhu, Y. Huang, X. Chang, X. Hu, Y. Zhang, R. Pi, Y. Liu, Q. Meng, J. Li, Q. Zhang, L. Zhu, Z. Lin, L. Min, D. Yuan, C. Grover, D. Fang, K. Lindsey, J. F. Wendel, L. Tu, X. Zhang, and M. Wang. 2023. Genetic regulome of dynamic gene expression in allotetraploid cotton informs fiber improvement through subgenome coordination. *Nature Genetics* (in revision).
- Wendel, J. F. 2023. Standing on the shoulders of giants: the contributions of Paul Fryxell to our understanding of *Gossypium* taxonomy and evolution. *Cotton: Some Insights* (in press).
- Jareczek, J. J., C. E. Grover, G. Hu, M. A. Arick II, D. G. Peterson, J. F. Wendel. 2023. Comparative domestication genomics of the two allopolyploid cotton species, *Gossypium barbadense* and *G. hirsutum*. *Genes* (in review).