

ANDREW H. PATERSON

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Professional Preparation:

Univ. Delaware	Plant Science	BS (Summa Cum Laude) 1982;
Cornell	Plant Breeding/ Genetics	MS, 1985/ PhD. 1988
Cornell	Plant Molecular Genetics	Postdoctoral, 1988-9

Appointments

1 July 2002: Distinguished Research Professor, Univ. GA.
1 Jan 1999: Professor, Univ. GA (Depts Crop & Soil Sci; Botany; Genetics).
1991-8. Asst., Assoc., & Full Professor, Dept Soil & Crop Sci., Texas A&M.
1989: Adjunct Assistant Prof. of Plant Molecular Biology, Univ. Delaware.
1989-1991: Principal investigator, Agric. Biotechnology, E.I. DuPont

Ten publications most relevant:

Paterson, Andrew H. 2006. Leafing through the genomes of our major crop plants: strategies for capturing unique information. *Nature Reviews Genetics* 7:174-184.

Missaoui, A., A. H. Paterson, J. H. Bouton. 2005. Investigation of genome organization in switchgrass (*Panicum virgatum* L.) using DNA markers. *Theor. Appl. Genet.* 100:1372-1383.

Ming, Ray, Paul H. Moore, Kuo-Kao Wu, Angélique D'Hont, Thomas L. Tew, T. Erik Mirkov, Jorge da Silva, Raymond J. Schnell, Stevens M. Brumley, Prakash Lakshmanan, John Jifon, Mamta Rai, Jack C. Comstock, Jean C. Glaszmann, Andrew H. Paterson. 2005. Sugarcane improvement through breeding and biotechnology. *Plant Breeding Reviews* 27:15-118.

Kresovich, S et al (34 authors, A. H. Paterson corresponding). 2005. Toward sequencing the sorghum genome: a US National Science Foundation-sponsored workshop report. *Plant Physiology* 138:1898-1902.

Bowers, JE, et al (33 authors, with A. H. Paterson as corresponding). 2005. Comparative physical mapping links retention of microsynteny to chromosome structure and recombination in grasses. *PNAS-USA* 102:13206-13211.

Paterson, AH, JE Bowers, BA Chapman. 2004. Consequences of an ancient duplication predating divergence of the cereals for comparative genomics. *PNAS-USA*, 101:9903-9908.

Bowers, JE, BA Chapman, J Rong, AH Paterson. 2003. Unravelling angiosperm chromosome evolution by phylogenetic analysis of chromosomal duplication events. *Nature* 422:433-438.

Hu, FY, DY Tao, E Sacks, P Xu, J Li, Y Yang, K McNally, GS Khush, AH Paterson, ZK Li. 2003. Convergent Evolution of Perenniality in Grasses. *PNAS-USA* 100:4050-4054.

Ming, R., S-C. Liu, J. E. Irvine, A. H. Paterson. 2001. Comparative QTL Analysis in a Complex Autopolyploid: Candidate Genes for Determinants of Sugar Content in Sugarcane. *Genome Research* 11:2075-2084.

Paterson, AH, YR Lin, Z Li, KF Schertz, JF Doebley, SRM Pinson, SC Liu, JW Stansel, JE Irvine 1995. Convergent domestication of cereal crops by independent mutations at corresponding genetic loci. *Science*, 269:1714-1718.

Selected seminars, presentations

The sorghum genome sequence. Sorghum/Agricultural Proteomics and Genomics Conference, Cape Town, South Africa. 3-5 March 2008.

Sorghum as a biofuels crops: challenges and opportunities. US Department of Energy Joint Genome Institute Bioenergy workshop, Walnut Creek CA, January 2007.

Ancient polyploidy in angiosperm genomes. Ceres, Inc. January 2007; International Conference on Plant Molecular Breeding, Hainan China, March 2007; Texas A&M University, March 2007; Cornell University, May 2007; Universidade do Algarve, FARO Portugal, July 2007; Univ FL, April, 2006.

Peanut genomics. INDO-US Forum on Application of Genomics Tools to Chickpea, Pigeon Pea and Peanut Improvement. 7 March 2006, Patancheru India.

Selected honors, awards:

2007-8: Guggenheim Foundation Fellow, Plant Sciences.

2006: Leader, DOE Joint Genome Institute 'Community Sequencing Program' project to sequence the 736 Mb sorghum genome (est. cost \$8 million; publication in preparation).

2006: DOE Joint Genome Institute Community Sequencing Program User Committee.

2006-9: Chair, (Worldwide) Sorghum Genomics Executive Committee

2005: D. W. Brooks Award for Excellence in Research, Univ. Georgia.

2004-date: Peanut Genomics Steering Committee: Leader, Genome Structural Analysis.

2002-date: Co-Director, *Genes for Georgia* initiative (<http://plantgenome.agtec.uga.edu/g4g/>)

2001-2: ESCOP/ACOP Leadership Program (NASULGC).

Interests: My lab studies intrinsic genetic properties that make plants different from other organisms and from one another. In particular, selected plants have become crops because of unique attributes that also make them valuable as botanical models. Crop genetics thus offers the opportunity to increase basic scientific knowledge and apply it to contemporary needs. Our priorities are to explore basic principles of genetics and evolution in the genomes of model organisms, and to accelerate assembly of the genomic frameworks that will permit such principles to be applied to the study and improvement of major crops.