

F. BIOGRAPHICAL SKETCH: CAROLYN J. LAWRENCE

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a. Professional Preparation

Institution	Major	Degree	Year(s)
Hendrix College	Biology	B.A.	1996
Texas Tech University	Biology	M.S.	1997
The University of Georgia	Botany	Ph.D.	2003
Iowa State University	Bioinformatics	Postdoc	2003-2005

b. Appointments

Collab. Assist. Prof.	GDCB Department	Iowa State University	2005-present
Research Geneticist	CICG Research Unit	USDA-ARS	2005-present

c.i. Publications (most relevant to proposal)

Sen, T.Z., Andorf, C.M., Schaeffer, M.L., Harper, L.C., Sparks, M.E., Duvick, J., Brendel, V.P., Cannon, E., Campbell, D.A., and Lawrence, C.J. MaizeGDB becomes 'sequence-centric' (2009) *Database* in press.

Yi, G., Luth, D., Goodman, T.D., Lawrence, C.J., and Becraft, P.W. High-throughput linkage analysis of mutator insertion sites in maize (2009) *Plant Journal* 58(5):883-892.

Gray J, Bevan M, Brutnell T, Buell CR, Cone K, Hake S, Jackson D, Kellogg E, Lawrence C, McCouch S, Mockler T, Moose S, Paterson A, Peterson T, Rokhsar D, Souza GM, Springer N, Stein N, Timmermans M, Wang GL, and Grotewold E. A recommendation for naming transcription factor proteins in the grasses (2009) *Plant Physiology* 149(1):4-6.

Lawrence, C.G., Harper, L.C., Schaeffer, M.L., Sen, T.Z., Seigfried, T.E., and Campbell, D.A. MaizeGDB: the maize model organism database for basic, translational, and applied research (2008) *International Journal of Plant Genomics* 496957.

Lawrence, C.J., Schaeffer, M.L., Seigfried, T.E., Campbell, D.A., and Harper, L.C. MaizeGDB's new data types, resources, and activities (2007) *Nucleic Acids Research* 35:D895-D900.

c.ii. Publications (others of significance)

Duvick, J., Fu, A., Muppirala, U., Sabharwal, M., Wilkerson, M.D., Lawrence, C.J., Lushbough, C., and Brendel, V. PlantGDB: a resource for comparative plant genomics (2008) *Nucleic Acids Research* 36:D959-965.

Dong, Q., Lawrence, C.J., Schlueter, S.D., Wilkerson, M.D., Kurtz, S., Lushbough, C., and Brendel, V. Comparative plant genomics resources at PlantGDB (2005) *Plant Physiology* 139:610-618.

Lawrence, C.J., Seigfried, T.E., and Brendel, V. The Maize Genetics and Genomics Database. The community resource for access to diverse maize data (2005) *Plant Physiology* 138:55-58.

Lawrence, C.J., Dong, Q., Polacco, M.L., Seigfried, T.E., and Brendel, V. MaizeGDB: the community database for maize genetics and genomics (2004) *Nucleic Acids Research* 32(Database issue):D393-397.

Lawrence, C.J., Zmasek, C.M., Dawe, R.K., and Malmberg, R.L. LumberJack: a heuristic tool for sequence alignment exploration and phylogenetic inference (2004) *Bioinformatics* 20(12):1977-1979.

d. Synergistic Activities

- 2008-present PI for “POPcorn – a project portal for corn” (NSF BD&I/Plant Genome Research Award 0743804) *Iowa State University*
- 2006-present co-PI for “Cyberinfrastructure for (Comparative) Plant Genome Research Through PlantGDB” (NSF PGRP Award 0606909 to Volker Brendel at Iowa State University) *Iowa State University*.
- 2006-present Member, Maize Crop Germplasm Committee
- 2005-present Director, Maize Genetics and Genomics Database (MaizeGDB).

e. Collaborators and Other Affiliations

Collaborators:

Lorrie Anderson, Colorado State; Carson Andorf, USDA-ARS; Hank Bass, Florida State; Bill Beavis, ISU; Phil Becraft, ISU; Michael Bevan, John Innes; Volker Brendel, ISU; Thomas Brutnell, Boyce Thompson; Ed Buckler, USDA-ARS; C. Robin Buell, Michigan State; Darwin Campbell, USDA-ARS; Ethalinda Cannon, ISU; Karen Cone, Univ. Missouri; Guy Davenport, CIMMYT; R. Kelly Dawe, Univ. Georgia; Qunfeng Dong, Indiana; Jon Duvick, ISU; Mike Freeling, UC Berkeley; Ann Fu, ISU; Candice Gardner, USDA-ARS; Damian Gessler, NCGR; Timothy Goodman, ISU; John Gray, Ohio State; Erich Grotewold, Ohio State; Sarah Hake, USDA-ARS; Lisa Harper, USDA-ARS; Evelyn Hiatt, Kentucky Wesleyan; Owen Hoekenga, USDA-ARS; Eva Huala, Carnegie; David Jackson, CSHL; Pankaj Jaiswal, Oregon State; Elizabeth (Toby) Kellogg, Univ. Missouri; Stefan Kurtz, Universität Hamburg; Anne-Francois Lamblin, Univ. of Minnesota; Thomas Lubberstedt, ISU; Carol Lushbough, Univ. South Dakota; Diane Luth, ISU; Doreen Main, Washington State; Russell Malmberg, Univ. Georgia; Fiona McCarthy, Mississippi State; Don McCarty, Univ. Florida; Susan McCouch, Cornell; Karen McGinnis, Florida State Univ.; Todd Mockler, Oregon State; Steve Moose, Univ. Illinois; Lukas Mueller, Cornell; Usha Muppirala, ISU; Andy Paterson, Univ. Georgia; Tom Peterson, ISU; Mihai Pop, Univ. of Maryland; Dan Rokhsar, JGI; Mukul Sabharwal, ISU; Martin Sachs, USDA-ARS; Mary (Polacco) Schaeffer, USDA-ARS; Shannon Schlueter, UNC, Charlotte; Patrick Schnable, ISU; Trent Seigfried, former USDA-ARS; Taner Sen, USDA-ARS; Chi-Ren Shyu, Univ. Missouri; Glaucia Mendes Souza, Universidade de São Paulo; Martin Spalding, ISU; Nathan Springer, Univ. Minnesota; Lincoln Stein, CSHL; Nils Stein, IPK; Matthew Steven, ISU; Marja Timmermans, CSHL; Virginia Walbot, Stanford; Guo-Liang Wang, Ohio State; Doreen Ware, USDA-ARS; Matthew Wilkerson, UNC Chapel Hill; Gium Yi, ISU.

Advisors:

M.S. Advisor: A. Scott Holaday, Texas Tech Univ.; Ph.D. Advisors: R. Kelly Dawe & Russell L. Malmberg, Univ. of Georgia; Postdoctoral Advisor: Volker Brendel, ISU

Advisees:

Postdoctoral: Von Mark Cruz, International Rice Research Institute; Joan Peterson, BASF
Doctoral: Timothy Goodman, ISU (current); Liang Ye, Genome Sequencing Center at Washington Univ.; Matthew Wilkerson, Univ. of North Carolina; Masters: Megan Harvey, Monsanto