

ABBREVIATED CV

STEVEN H. STRAUSS

Steve.Strauss@OregonState.Edu

1 February 2008

<http://www.forestry.oregonstate.edu/coops/tbgrc/Staff/strauss/index.htm>
<http://www.forestry.oregonstate.edu/coops/tbgrc/Staff/strauss/publications.htm>
<http://www.forestry.oregonstate.edu/cof/fs/people/faculty/strauss.php>
<http://wwwdata.forestry.oregonstate.edu/orb/>
<http://www.forestry.oregonstate.edu/coops/tbgrc/>

PROFESSIONAL EXPERIENCE

- 11/04-present **Director**, Outreach in Resource Biotechnology, Oregon State University
7/95-present **Professor**, Department of Forest Science, and Molecular and Cellular Biology and Genetics Programs, OSU
1/01-4/01 **Visiting Senior Fellow**, Linacre College, Oxford University, UK
Visiting Scientist, Department of Plant Science, Oxford Forestry Institute, UK
7/90-6/95 **Associate Professor**, Department of Forest Science, OSU
7/94-present **Director, Tree Genomics and Biosafety Research Cooperative**, College of Forestry, OSU
7/99-present **Director, National Science Foundation Center for Tree Genetics** (Industry/University Cooperative Research Centers Program)
6/93-8/93 **Visiting Scientist**, INRA Divisions of Cellular Biology, Versailles & Forestry Research, Orleans, France
9/91-6/92 **Visiting Professor**, College of Forestry, Australian National University, Canberra, Australia
Visiting Scientist, CSIRO Division of Plant Industry, Canberra, Australia
6/90-7/90 **Visiting Scientist**, Department of Botany, Tromsø University, Norway
7/85-6/90 **Assistant Professor**, Department of Forest Science and Genetics Program, OSU

EDUCATION

- Ph.D. 1985 **University of California at Berkeley**, Department of Forestry and Resource Management (Genetics within Wildland Resource Science)
M.F.S. 1980 **Yale University**, School of Forestry and Environmental Studies (Forest Science)
B.S. 1978 **Cornell University**, College of Agriculture and Life Science (Biology)

HONORS AND PROFESSIONAL ACTIVITIES

Examples of National/International Scientific Recognition

- ◆ Peer review publications: 101. Other articles: 53. Edited books: 3. Invited lectures: 170.
- ◆ Obtained grants from NSF, DOE, USDA, NIH, EPA, forest industries, and other sources totaling 14.2 million dollars.
- ◆ Leopold Leadership Fellow, Stanford Institute for the Environment, 2005
- ◆ Awarded US patent No. 6,395,892 B1; May 28, 2002.

- ◆ Trained 23 graduate students, 21 postdoctoral scientists, and 39 technical/professional employees (BS or higher degrees).
- ◆ External Review Committee, Michael Smith (formerly Biotechnology) Laboratories, University of British Columbia, April 2005
- ◆ Chair, Scientific Advisory Board, Genome Canada-Quebec research consortium “Arborea,” studying “Functional Genomics of Regulation of Trees,” Quebec City, Canada, 2003-2006.
- ◆ Presented invited lectures to federal judges and law professors at the Foundation for Research on Economics and the Environment, July and September 2002 & June 2003, Bozeman, Montana
- ◆ Chair Scientific Organization Committee, Workshop on Horticultural, Urban Forestry, Health and Environmental Benefits of Flowering Modification in Transgenic Trees, Institute for Forest Biotechnology/North Carolina Biotechnology Center, February 2003.
- ◆ Steering Committee Member, International Poplar Genome Sequence, organized by Joint Genomics Institute, Department of Energy, 2001-2003.
- ◆ Chairman, International Union of Forestry Research Organizations Working Party on Molecular Genetics of Forest Trees, S.04-06, 1995-1999

Leadership in Biotechnology Regulation and Ecological Assessment

- ◆ Committee member, National Research Council, Review and Future Goals for the National Plant Genome Research Program, 2007.
- ◆ Committee member, National Research Council Workshop on Environmental Effects of GMOs. Dept. of the Interior. 2007.
- ◆ Invited participant at Institute for Forest Biotechnology Symposium on Genetically Engineered Forest Trees: A Workshop to Identify Priorities for Ecological Risk Assessment. May 3-4, 2007, Raleigh, NC.
- ◆ Invited speaker at Pew Initiative / USDA APHIS sponsored workshop: Emerging Challenges for Biotechnology-Derived Specialty Crops, Washington, DC (January 2007).
- ◆ Invited member of State of Oregon Committee charged to formulate recommendations to the governor on regulation of biopharm crops in Oregon (2005-2006).
- ◆ Led in providing recommendations to USDA APHIS on regulation of genetically engineered crops that were supported by more than 60 scientists, March 2004.
- ◆ Invited speaker at USDA Workshop on Public Research and Regulatory Review of Small-Market Biotechnology-Derived Crops, November 2004, Washington, DC.
- ◆ Invited participant, Pew Initiative on Biotechnology, Workshop on Impacts of Biotech Regulation on Small Business and University Research: Possible Barriers and Potential Solutions, June 2004.
- ◆ Invited speaker in forest biotechnology symposium at United Nations (UNIDO) Global Forum on Biotechnology, Concepcion, Chile, March 2004.
- ◆ Invited speaker at Canadian Forest Service / Canadian Food Inspection Service panel on Regulatory Challenges in Forest Biotechnology, World Forestry Congress, Quebec City, Canada, September 2003.
- ◆ Invited to present lecture on “state of science” at USDA APHIS national meeting on regulation of genetically engineered trees, Greenbelt, MD, July 2003.

- ◆ Invited Science Facilitator at Stakeholder Meeting on USDA Biotechnology Risk Assessment Grant Program Review, Washington, D.C., June 2003.
- ◆ Planning Committee, National Agricultural Biotechnology Council Annual Meeting, Seattle, WA, 2002-2003
- ◆ Steering Committee Member, National Workshop on Risks of Field Testing of Transgenic Crops with Novel Genes, Information Systems for Biotechnology, 2001-2002.
- ◆ Co-organizer, International Symposia on Ecological and Societal Aspects of Transgenic Plantations, and International Organization of Forest Research Organizations (IUFRO) Section on Molecular Biology of Forest Trees. Stevenson, Washington, USA, 2001.
- ◆ Planning Committee, Institute for Forest Biotechnology, Research Triangle Park, North Carolina, 1999-2000
- ◆ Invited to make formal presentation on forest biotechnology to New Zealand Royal Commission on Genetic Modification, 2000.
- ◆ Group Leader, Information Systems for Biotechnology/USDA APHIS Workshop on Ecological Effects of Pest Resistance Genes, 1999

Teaching and Academic Achievement

- ◆ Awarded “Extraordinary Performance” recognition as result of five-year Post-Tenure Review in the College of Forestry, Oregon State University, September 2002
- ◆ Mentor’s Hall of Fame, Oregon State University Apprenticeships in Science and Engineering, 2001-present (15 high school students mentored)
- ◆ Dean’s Award for Outstanding Achievement, OSU College of Forestry, 1998
- ◆ Co-convenor of session on tree biotechnology, AAAS Pacific Division Meeting, Corvallis, OR, 1997

Grant review panels

Scientific Review Panels

- ◆ USDA Agricultural Research Service, Ornamentals 2007
- ◆ Consortium for Plant Biotechnology Research, 2006
- ◆ Panel Manager, Biotechnology Risk Assessment Grants, 1999
- ◆ National Science Foundation
 - IGERT: Interdisciplinary Graduate Education Research & Training, 2001
 - Population Biology & Physiological Ecology, 1991
 - Conservation & Restoration Biology, 1990
- ◆ U.S. Department of Agriculture Competitive Grants Review
 - Biotechnology Risk Assessment, 1998
 - Forest Biology, 1990

National Research Council Service

- ◆ Plant Genome Research Program, 2007
- ◆ Workshop on Impacts of GMOs on Department of Interior Lands, 2007
- ◆ Reviewer, Biological Confinement of Genetically Engineered Organisms, 2004
- ◆ Review of Biofuels Research Program of the U.S. Department of Energy, 1999
- ◆ Intellectual Property Issues in Plant Biotechnology, 1996

- ◆ NSF Graduate Fellowship, 1993

Member of Editorial Boards

- ◆ New Zealand Journal of Forestry Science 2005-present
- ◆ Biomedcentral Plant Biology 2004-present
- ◆ Tree Genetics and Genomes, 2004-2006
- ◆ New Phytologist, 2003-present
- ◆ Forestry: An International Journal of Forestry Research, 2002-present.
- ◆ Forest Genetics, 1994-96

EXAMPLES OF RECENT REFEREED PUBLICATIONS

Review/analysis

1. Busov, V.B., A.M. Brunner and S.H. Strauss. 2008. Genes for control of form and stature in plants. *New Phytol.* (in press)
2. Brunner, A., J. Li, S. DiFazio, O. Shevchenko, R. Mohamed, B. Montgomery, A. Elias, K. Van Wormer, S.P. DiFazio, & S.H. Strauss. 2006. Genetic containment of forest plantations. *Tree Genetics & Genomes* (in press, Strauss is co-senior author)
3. Arias, R., S. Filichkin, and S.H. Strauss. 2006. Divide and conquer: Plant cell cycle and development genes for plant transformation. *Trends Biotechnol.* 24:267-273.
4. Busov, V.B., M. Fladung, A. Groover, and S.H. Strauss. 2005. Insertional mutagenesis in *Populus*: Relevance and feasibility. *Tree Genet. & Genomes* 1:135-142.
5. Bradford, K., N. Gutterson, A. Van Deynze, W. Parrott, and S.H. Strauss. 2005. Regulating biotech crops sensibly: Lessons from plant breeding, biotechnology and genomics. *Nature Biotechnol.* 23:439-444.
6. Busov, V.B., A.M. Brunner, R. Meilan, S. Filichkin, L. Ganio, S. Gandhi, and S.H. Strauss. 2005. Genetic transformation: A powerful tool for dissection of adaptive traits in trees. *New Phytol.* 167:219-228.
7. Strauss, S.H., A.M. Brunner, V. Busov, C. Ma, and R. Meilan. 2004. Ten lessons from 15 years of transgenic *Populus* research. *Forestry* 77:455-465.
8. Brunner, A.M., V. Busov, and S.H. Strauss. 2004. The poplar genome sequence: Functional genomics in a keystone plant species. *Trends Plant Sci.* 9:49-56.
9. Slavov, G.T., S.P. DiFazio, and S.H. Strauss. 2003. Gene flow in forest trees: Gene migration patterns and landscape modeling of transgene dispersion in hybrid poplar. In H.C.M den Nijs, D. Bartsch and J. Sweet (Eds.), *Introgression from Genetically Modified Plants into Wild Relatives*, CAB International, UK, pp. 89-106.
10. Strauss, S.H. 2003. Genomics, genetic engineering, and domestication of crops. *Science* 300:61-62.
11. Campbell, M.M., A.M. Brunner, H.M. Jones, and S. H. Strauss. 2003. Forestry's Fertile Crescent: The application of biotechnology to forest trees. *Plant Biotech. J.* 1:141-154.
12. Strauss, S.H., and A. M. Brunner. 2004. Tree biotechnology in the 21st century: Transforming trees in the light of comparative genomics. In: *The BioEngineered Forest: Challenges to Science and Society*, S.H. Strauss and H.D. Bradshaw, Eds. Resources for the Future, Washington, D.C., pp. 76-97.

13. Adams, J.M., G. Piovesan, S.H. Strauss, and S. Brown. 2002. Genetic engineering of forest trees against introduced pests and diseases. *Conserv. Biol.* 16:874-879.
14. Strauss, S.H., M.M. Campbell, S.N. Pryor, P. Coventry, and J. Burley. 2001. Plantation certification and genetic engineering: Banning research is counterproductive. *J. Forestry* 99(12):4-7.
15. Strauss, S.H., P. Coventry, M.M. Campbell, S.N. Pryor, and J. Burley. 2001. Certification of genetically modified forest plantations. *Internat. Forestry Rev.* 3(2):87-104.
16. Strauss, S.H., S. DiFazio, and R. Meilan. 2001. Genetically modified poplars in context. *Forestry Chron.* 77(2):1-9.
17. Bradshaw, H.D., Jr., and S.H. Strauss. 2000. Breeding strategies for the 21st century: Domestication of poplar. In: Dickmann, D.I., Isebrands, J.G., Eckenwalder, J.E. and Richardson, J. (eds.). *Poplar Culture in North America, Part 2, Chapter 14.* NRC Research Press, National Research Council of Canada, Ottawa, ON K1A 0R6, Canada, p. 383-394.
18. Thompson, P.B., and S.H. Strauss. 2000. Research ethics for molecular silviculture. P. 585-611 In: *Molecular Biology of Woody Plants*, S.M. Jain & S.C. Minocha, Eds., Kluwer Academic Publishers, The Netherlands.
19. Skinner, J.S., R. Meilan, A.M. Brunner, and S.H. Strauss. 2000. Options for genetic engineering of floral sterility in forest trees. In: S.M. Jain and S.C. Minocha (Eds.), *Molecular Biology of Woody Plants*, volume 1. Kluwer Academic Publishers, Dordrecht, The Netherlands, pp. 135-153.

Research reports

20. Doty, S.L., C.A. James, A.L. Moore, A. Vajzovic, G.L. Singleton, C. Ma, Z. Khan, G. Xin, J.W. Kang, J.Y. Park, R. Meilan, S.H. Strauss, J. Wilkerson, F. Farin, and S.E. Strand. 2007. Enhanced phytoremediation of volatile environmental pollutants with transgenic trees. *Proc. Natl. Acad. Sci. USA* 104:16816-16821.
21. Li, J., A.M. Brunner, O. Shevchenko, R. Meilan, C. Ma, J.S. Skinner, and S.H. Strauss. 2007. Efficient and stable transgene suppression via RNAi in field-grown poplars. *Transgenic Res.* DOI 10.1007/s11248-007-9148-1
22. Filichkin, S.A., S.P. DiFazio, A.M. Brunner, J. M. Davis, Z.K. Yang, U.C. Kalluri, R.S. Arias, E. Etherington, G.A. Tuskan and S.H. Strauss. 2007. Efficiency of gene silencing in Arabidopsis: Direct inverted repeats versus transitive RNAi vectors. *Plant Biotech. J.* (in press)
23. Li, J., R. Meilan, C. Ma, M. Barish and S.H. Strauss. 2007. Stability of herbicide resistance over eight years of coppice in field-grown, genetically engineered poplars. *Western J. Appl. Forestry* (in press).
24. Wei, H., R. Meilan, A.M. Brunner, J.S. Skinner, C. Ma, H.T. Gandhi, and S.H. Strauss. 2006. Field trial detects incomplete *barstar* attenuation of vegetative cytotoxicity in *Populus* trees containing a poplar *LEAFY* promoter::*barnase* sterility transgene. *Molec. Breed.* 19:69-85.
25. Böhlenius, H., T. Huang, L. Charbonnel-Campaa, A.M. Brunner, S. Jansson, S.H. Strauss, and O. Nilsson. 2006. The conserved *CO/FT* regulatory module controls timing of flowering and seasonal growth cessation in trees. *Science* 312:1040-1043.
26. Filichkin, S.A., Q. Wu, V.B. Busov, R. Meilan, C. Lanz-Garcia, A. Groover, B. Goldfarb, C. Ma, P. Dharmawardhana and S.H. Strauss. 2006. Enhancer trapping in woody plants:

- Isolation of the *ET304* gene encoding a putative AT-hook motif transcription factor and characterization of the expression patterns conferred by its promoter in transgenic *Populus* and *Arabidopsis*. *Plant Science* 17:206-216.
27. Busov, V., R. Meilan, D.W. Pearce, S.B. Rood, C. Ma, T.J. Tschaplinski, and S.H. Strauss. 2006. Transgenic modification of *gai* or *rgl1* causes dwarfing and alters gibberellins, root growth, and metabolite profiles in *Populus*. *Planta* 24:288-299.
 28. Filichkin, S.A., R. Meilan, V.B. Busov, C. Ma, A.M. Brunner and S.H. Strauss. 2006. Alcohol-inducible gene expression in transgenic *Populus*. *Plant Cell Reports* 25:660-667.
 29. Wei, H., R. Meilan, A. Brunner, J. Skinner, C. Ma, and S.H. Strauss. 2005. Transgenic sterility in *Populus*: Expression properties of the poplar *PTLF*, *Agrobacterium NOS*, and two minimal 35S promoters in vegetative tissues. *Tree Physiology* 26:401-410.
 30. Ma, C., S.H. Strauss, and R. Meilan. 2004. *Agrobacterium*-mediated transformation of the genome-sequenced poplar clone, Nisqually-1. *Plant Molec. Biol. Reporter* 22:1-9.
 31. Brunner, A.M., I.A. Yakovlev, and S.H. Strauss. 2004. Validating internal controls for quantitative plant gene expression studies. *BioMed Central Plant Biology* 2004, 4:14. <http://www.biomedcentral.com/1471-2229/4/14> doi:10.1186/1471-2229-4-14
 32. Sterky, F., R.R. Bhalerao, P. Unneberg, B. Segerman, P. Nilsson, A.M. Brunner, L. Charbonnel-Campaa, J.J. Lindvall, K. Tandre, S.H. Strauss, B. Sundberg, P. Gustafsson, M. Uhlén, R.P. Bhalerao, O. Nilsson, G. Sandberg, J. Karlsson, J. Lundeberg, and S. Jansson. 2004. A *Populus* expressed sequence tag resource for plant functional genomics. *Proc. Natl. Acad. Sci. USA* www.pnas.org/cgi/doi/10.1073/pnas.0401641101
 33. Andersson, A., J. Kesitalo, A. Sjodin, R. Bhalerao, F. Sterky, K. Wissel, K. Tandre, R. Moyle, Y. Ohmiya, R. Bhalerao, A. Brunner, P. Gustafsson, J. Karlsson, J. Lundeberg, O. Nilsson, G. Sandberg, S. Strauss, B. Sundberg, M. Uhlen, S. Jansson, P. Nilsson, and H. Aspeborg. 2004. A transcriptional timetable of autumn senescence. *Genome Biol.* 5:R24, <http://genomebiology.com/2004/5/4/R24>
 34. Groover, A., J. Fontana, G. Dupper, C. Ma, R. Martienssen, S.H. Strauss, and R. Meilan. 2004. Gene and enhancer trap tagging of vascular-expressed genes in poplar trees. *Plant Physiol.* 134:1742-1751.
 35. Slavov, G. T., G. T. Howe, I. Yakovlev, K. J. Edwards, K. V. Krutovskii, G. A. Tuskan, J. E. Carlson, S. H. Strauss, and W. T. Adams. 2004. Highly variable SSR markers in Douglas-fir: Mendelian inheritance and map locations. *Theoret. Appl. Genet.* 108:873-880.
 36. Busov, V., R. Meilan, D.W. Pearce, C. Ma, S.B. Rood and S.H. Strauss. 2003. Activation tagging of a dominant gibberellin catabolism gene (*GA 2-oxidase*) from poplar that regulates tree stature. *Plant Physiol.* 132:1283-1291.
 37. Skinner, J.S., R. Meilan, C. Ma, and S.H. Strauss. 2003. The *Populus PTD* promoter imparts floral-predominant expression and enables high levels of floral-organ ablation in *Populus*, *Nicotiana* and *Arabidopsis*. *Molec. Breed.* 12:119-132.

EXAMPLES OF OTHER PUBLICATIONS

Patent

1. Strauss, S.H., William Rottmann, Amy Brunner and Lorraine Sheppard. 2002. Floral homeotic genes for manipulation of flowering in poplar and other plant species. United States Patent No. 6,395,892 B1; May 28, 2002.

Books/Symposia

1. Strauss, S.H., and H.D. Bradshaw (Editors). 2004. *The Bioengineered Forest: Challenges to Science and Society*. Resources for the Future, Washington, D.C. (in press)
2. Strauss, S.H., and H.D. Bradshaw (Editors). 2001. *Proceedings of the First International Symposium on Ecological and Social Aspects of Transgenic Plantations*. College of Forestry, Oregon State University. 250 pp.
3. Adams, W.T., S.H. Strauss, D.L. Copes, and A.R. Griffin (Editors). 1992. *Population Genetics of Forest Trees*. Kluwer, Netherlands. 420 pp.

Recent Articles (2003-2006)

1. Etherington, E., H. Gandhi, V. Busov, R. Meilan, C. Ma, K. Kosola, and S.H. Strauss. 2007. Dwarfism genes for modifying the stature of woody plants: A case study in poplar. *Landscape Plant News*. 18:3-6.
2. Strauss, S.H., S. Filichkin, H. Gandhi, V. Canon, R. Arias, K. VanWormer, P. Dharmwardhana, B. Montgomery, C. Poovaiah, O. Shevchenko, and C. Ma. 2006. Tree Biosafety and Genomics Research Cooperative Annual Report. Forestry Research Laboratory, Oregon State University, Corvallis, OR. 28 pp.
3. Strauss, S.H., A. Brunner, S. Filichkin, H. Gandhi, E. Jaeger, R. Arias, J. Li and C. Ma. 2005. Tree Biosafety and Genomics Research Cooperative Annual Report. Forestry Research Laboratory, Oregon State University, Corvallis, OR. 40 pp.
4. Bradford, K., N. Gutterson, A. Van Deynze, W. Parrott, and S.H. Strauss. 2005. Response to letters on "Regulating biotech crops sensibly: Lessons from plant breeding, biotechnology and genomics." *Nature Biotechnol.* 23:439-444.
5. Valenzuela, S., and S.H. Strauss. 2005. Lost in the woods. *Nature Biotechnol.* 23:532-533.
6. Strauss, S.H., and F.M. Martin. 2004. Poplar genomics comes of age. *New Phytol.* 164:1-4.
7. Strauss, S.H. 2004. GE trees: The buzz is not from chain saws. *TimberWest* May/June:28.
8. Strauss, S.H. 2004. Forest biotechnology – thriving despite controversy. Review of "Molecular Genetics and Breeding of Forest Trees" by S. Kumar and M. Fladung. *New Phytol.* 163:9-11.
9. Strauss, S.H., A. Brunner, S. Filichkin, S. Gandhi, E. Jaeger, J. Li and C. Ma. 2004. Tree Biosafety and Genomics Research Cooperative Annual Report. Forestry Research Laboratory, Oregon State University, Corvallis, OR. 37 pp.
10. Strauss, S.H., and S.P. DiFazio. 2004. Hybrids abounding: Review of "Dangerous liaisons: When plants mate with their wild relatives" by Norman Ellstrand. *Nature Biotechnol.* 22:29-30.

11. Chassy, B., C. Carter, M. McGloughlin, A. McHughen, W. Parrot, C. Preston, R. Roush, A. Shelton, and S.H. Strauss. 2003. UK field trial evaluations answer the wrong questions. *Nature Biotechnol.* 21: 1429-1430.
12. Ronald, P., and S.H. Strauss. 2003. Moving the debate on genetically engineered crops forward. *American Society of Plant Biologists Newsletter*, May/June, 30(3).
13. Strauss, S.H. 2003. Regulation of biotechnology as though gene function mattered. *BioScience* 53:453-454.

EXAMPLES OF RECENT INVITED PRESENTATIONS

1. 2007. Understanding Biotechnology. Oregon Seed Growers League Annual Conference, Salem, Oregon.
2. 2007. Transgenic domestication of forest trees: Collision of genomics and society. Department of Botany and Plant Pathology, Oregon State University.
3. 2007. Why the regulatory system for transgenic specialty crops fails spectacularly, and is getting worse. Workshop on Emerging Challenges for Specialty (Transgenic) Crops, Pew Initiative for Food and Biotechnology and the USDA Animal and Plant Health Inspection Service, Washington, DC.
4. 2006. Value and obstacles in use of tree genetic engineering for short rotation woody crops. Seventh Biannual Meeting of the SRWC Production Systems Working Group, IUFRO-Society of American Foresters, Pasco, WA.
5. 2006. Gibberellic acid genes for physiological sculpture of trees. Center for Genome Research and Biocomputing at OSU annual retreat, Eagle Crest, Redmond, OR.
6. 2006. Genes useful for physiological sculpture of trees: Gibberellic acid signaling genes in poplar (*Populus*). American Society of Plant Biologists/Canadian Society of Plant Physiologists Joint Annual Meeting, Boston, MA.
7. 2006. Genetic containment of poplar plantations. International Poplar Symposium IV, Nanjing, China.
8. 2006. Genetic engineering approaches to breeding sterility and reduced invasiveness. Second USDA-ARS floral and nursery crops workshop, Portland, OR.
9. 2006. Ecological science vs. popular environmentalism: A view from the world of crop biotechnology. Department of Fisheries and Wildlife, Oregon State University.
10. 2006. Development and validation of sterility systems for trees. Department of Energy, Agenda 2020 Conference, Atlanta, GA.
11. 2006. Genetic engineering of sterility in trees. Arborgen Company, Sumerville, SC.
12. 2006. Ten years of transgenic poplar research on genetic containment. Agriculture Canada Oakanagan Research Center, Sumerland, British Columbia, Canada.
13. 2006. Genetic containment of forest plantations. In *Growing Trees and Stemming Risks: Symposium on Ecological Impacts Associated with the Products and Practices of Forest Biotechnology*. Institute of Forest Biotechnology, Vancouver, British Columbia, Canada.
14. 2006. GMOs (genetic modified organisms) and forest certification. Department of Wood Science and Engineering, Oregon State University, Corvallis, OR.
15. 2006. Tree domestication: Modifying tree architecture, chemistry, and flowering via gibberellin signaling genes. Department of Forest Science, Oregon State University, Corvallis, OR.

16. 2006. The GMO debate: Dissonance of science, environmentalism, and society. University of Colorado at Boulder, Ecology/Evolution Colloquium, CO.
17. 2005. Poplars for biotechnology and genomics research: Ceres Company, Los Angeles, CA.
18. 2005. Domestication of poplar for bioenergy: Can genomics and transformation change the rules? Department of Energy/British Petroleum Joint Workshop on Plant Genomics, Washington, DC.
19. 2005. Environmental benefits and risks of genetically modified trees. Austrian College of Agriculture-US Land Grant College Consortium, Vienna.
20. 2005. Activation tagging of major genes for tree development. Consortium for Plant Biotechnology Annual Meeting, Washington, DC.
21. 2005. Activation tagging for functional gene discovery in poplar. DOE/Batelle Pacific Northwest Laboratories, Richland, WA.