

CURRICULUM VITA

Name: Jeffrey Francis David Dean

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Education:	Stanford University	B.S.	1980	Chemistry
		B.S.	1980	Biology
	Purdue University	Ph.D.	1986	Biochemistry

Research and Professional Experience:

2008-present Professor, Department of Biochemistry and Molecular Biology, UGA (*joint appointment*)
2006-present Professor, Warnell School of Forestry and Natural Resources, UGA
2002-2005 Director, The Plant Center, UGA
2001-2006 Associate Professor, Warnell School of Forest Resources, UGA
1996-2001 Assistant Professor, Warnell School of Forest Resources, UGA
1990-96 Associate Research Biochemist, Department of Biochemistry and Molecular Biology, UGA
1986-90 Postdoctoral Researcher (Plant Physiologist, GS-11), U.S. Department of Agriculture, Agricultural Research Service, Plant Hormone Laboratory, Beltsville, MD, James D. Anderson, advisor
1981-82 Teaching Assistant, Purdue University Biochemistry Program, West Lafayette, IN
1980-86 Research Assistant, Purdue University Biochemistry Program, West Lafayette, IN, Klaus M. Herrmann, advisor
1978-80 Teaching Assistant, Medical Microbiology and Biology Departments, Stanford University
1977-80 Research Assistant, Medical Microbiology Department, Stanford University, Stanford, CA, Bruce A.D. Stocker, advisor

Elected Memberships:

Institute for Forest Biotechnology, Board of Directors (2008-present)
International Academy of Wood Science, Fellow (2008-present)

Selected Recent Research Awards:

12/98 - 11/01 U.S. Department of Agriculture, Is Wood Quality Influenced by the Expression of Genes Controlling Ethylene Biosynthesis?
10/99 - 9/02 U.S. Department of Energy, "Structure-Function Relationships in Plant Laccases,"
11/02 - 10/03 U.S. Department of Energy, "Understanding the Function of Laccase-like Multicopper Oxidases in Plants"
09/02 – 08/06 National Science Foundation, "Transcriptome Responses to Environmental Conditions in Loblolly Pine Roots," (L.H. Pratt, M-M. Cordonnier-Pratt, S.A. Merkle, S.F. Covert, co-PIs)
11/03 – 10/07 U.S. Department of Energy (DOE), "Localization and Function of Two Multicopper Oxidases in *Arabidopsis thaliana*"
09/03 – 08/04 National Science Foundation (NSF), "Knowledge discovery in genomic databases: A PASI on Data Mining Applications for Genomics and Bioinformatics"
09/05 - 08/08 USDA Forest Service, Agenda 2020 Program, "Assessing the Impact of Intensive Forest Management Practices on Wood Formation and Quality at the Level of Gene Expression"
07/06 - 06/09 Georgia Traditional Industries Program in Pulp & Paper (TIP³), "*Sirex noctilio*: Genetic

- Approaches to Managing a Newly Introduced Insect Pest of North American Pines and Conifers"
- 09/07 - 08/09 U.S. Department of Energy - Joint Genome Institute (DOE-JGI), Community Sequencing Proposal, "An Expanded EST Resource for Pines and Other Conifers"
- 08/07 - 07/11 U.S. Department of Agriculture (USDA), "Conifer Translational Genomics Network CAP," (PI D.B. Neale)
- 09/08 – 08/10 U.S. Department of Energy - Joint Genome Institute (DOE-JGI), Community Sequencing Proposal, "Advancing Pine Genomics through Targeted and Random BAC Sequencing," (PI D.G. Peterson)
- 10/08 – 09/12 U.S. Department of Energy, Feedstock Genomics Program, "Genomics of Wood Biosynthesis and Cellulosic Biofuel Production in Sunflower," (PI S.J. Knapp)

Selected Recent Research Publications:

- Dean JFD (1997) Lignin Analysis. *In: Plant Biochemistry/Molecular Biology Laboratory Manual* (W.V. Dashek, Ed.). CRC Press, Inc., Boca Raton, FL, pp. 199-215
- Eggert C, LaFayette PR, Temp U, Eriksson K-EL, Dean JFD (1998) Molecular analysis of a laccase gene from the white-rot fungus, *Pycnoporus cinnabarinus*. *Appl. Environ. Microbiol.* 64: 1766-1772 ([LINK](#))
- LaFayette P, Merkle SA, Eriksson K-EL, Dean JFD (1999) Characterization and heterologous expression of laccase cDNAs from the lignifying xylem of yellow-poplar (*Liriodendron tulipifera*). *Plant Mol. Biol.* 40: 23-35 ([LINK](#))
- Liu L, Eriksson K-EL, Dean JFD (1999) Localization of hydrogen peroxide production in *Zinnia elegans* L. stems. *Phytochemistry* 52: 545-558 ([LINK](#))
- Merkle SA, Dean JFD (2000) Forest tree biotechnology. *Curr. Op. Biotech.* 11: 298-302 ([LINK](#))
- Dean JFD (2001) Synthesis of lignin in transgenic and mutant plants. *In: Biopolymers, Vol. 1, Lignin, Humic Substances and Coal* (M. Hofrichter and A. Steinbüchel, Eds.) Wiley-VCH Verlag, Weinheim, DE, pp. 65-88 ([LINK](#))
- Hoopes JT, Dean JFD (2001) Zymogram staining of peroxidases and laccases with 1,8-diaminonaphthalene. *Anal. Biochem.* 293: 96-101 ([LINK](#))
- Kim CH, Lorenz WW, Hoopes JT, Dean JFD (2001) Oxidation of phenolate siderophores by the multicopper oxidase encoded by the *Escherichia coli* *yacK* gene. *J. Bacteriol.* 183: 4866-4875 ([LINK](#))
- Lorenz WW, Dean JFD (2002) SAGE profiling and demonstration of differential gene expression along the axial developmental gradient of lignifying xylem in loblolly pine (*Pinus taeda*). *Tree Physiol.* 22: 301-310 ([LINK](#))
- Ekman DR, Lorenz WW, Przybyla AE, Wolfe NL, Dean JFD (2003) Transcriptome responses in *Arabidopsis thaliana* roots exposed to TNT. *Plant Physiol.* 133: 1397-1406 (This paper was the recipient of a Science and Technology Achievement Award from the US EPA) ([LINK](#))
- Hoopes JT, Dean JFD (2004) Ferroxidase activity in a plant multicopper oxidase. *Plant Physiol. Biochem.* 42: 27-33 ([LINK](#))
- Lorenz WW, Dean JFD (2005) Studies of plant gene expression using SAGE. *In: SAGE Technologies: Current Innovations and Future Trends*, (S.M. Wang, Ed.) Horizon Scientific Press, Norwich, England, pp. 189-206
- McCaig BM, Meagher RB, Dean JFD (2005). Gene structure and molecular analysis of the laccase-type multicopper oxidase gene family in *Arabidopsis thaliana*. *Planta* 221:619-636 ([LINK](#))
- Ekman DR, Wolfe NL, Dean JFD (2005) Gene expression changes in *Arabidopsis thaliana* seedling roots exposed to the munition hexhydro-1,3,5-trinitro-1,3,5-triazine. *Environ. Sci. Technol.* 39: 6313-6320 ([LINK](#))
- Lorenz WW, Sun F, Liang C, Zhao X, Kolychev D, Wang H, Cordonnier-Pratt M-M, Pratt LH, Dean JFD (2006) Water stress-responsive genes in loblolly pine (*Pinus taeda* L.) roots identified by analyses of expressed sequence tag libraries. *Tree Physiol.* 26:1-16 ([LINK](#))
- Dean JFD (2006) Genomics resources for conifers. *In: Landscapes, Genomics and Transgenic Conifer Forests*, (C.G. Williams, Ed.) Kluwer-Springer Press, Dordrecht, Netherlands, pp. 55-74
- Liang C, Wang G, Liu L, Carter K, Webb JS, Dean JFD (2007) ConiferEST: a novel, generic bioinformatics

system for data processing and mining of conifer expressed sequence tags (ESTs). BMC Genomics 8:134 ([LINK](#))

Liang C, Wang G, Liu L, Webb JS, Reese G, Dean JFD (2007) WebTraceMiner: a web service for processing and mining EST traces. Nucl. Acid Res. doi:10.1093/nar/gkm299 ([LINK](#))

Barnes JR, Lorenz WW, Dean JFD (2008) Characterization of a 1-aminocyclopropane-1-carboxylate synthase gene from loblolly pine (*Pinus taeda* L.). Gene 413:18-31 ([LINK](#))

Nairn CJ, Lennon DM, Wood-Jones A, Nairn AV, Dean JFD (2008) Carbohydrate-related genes and cell wall biosynthesis in vascular tissues of loblolly pine (*Pinus taeda* L.). Tree Physiol. 28:1099–1110 ([LINK](#))

Editorial Service:

Associate Editor, Tree Genetics and Genomes

Editorial Board, Applied Environmental Microbiology

Editorial Board, Phytoremediation: Transformation and Control of Contaminants, SC McCutcheon and JL Schnoor, eds, John Wiley and Sons, NY

Selected Service on Funding Advisory Panels:

Genome British Columbia, Applied Genomics Innovation Program, Panel member (2008)

Louisiana Board of Regents Support Fund, Panel member (2009)

National Academy of Sciences, National Research Council, National Plant Genome Initiative 5-Year Review Workshop (July 6-7, 2007), Panelist, Commodity Crop Genomes

National Science Foundation, Division of Cellular Biosciences, SBIR Panel member (1995); Division of Integrative Biology and Neuroscience, Plant Genome Site Review Team (2001)

New Zealand Foundation for Research, Science and Technology, Panel member (2007), Quality Assurance review

Swedish Research Council Formas, Panel member, Mid-Project Review (2008)

U.S. Department of Agriculture, NRICGP Improved Utilization of Wood and Wood Fiber Program, Panel member (1998-2000), Panel Manager (2001, 2002)

U.S. Department of Energy, Joint Genome Institute, Community Sequencing Program, Panel member (2006, 2007, 2009); JGI Users Group Executive Committee, Board member (2007-present); Office of Basic Energy Sciences, Panel member (2000)

U.S. Environmental Protection Agency, STAR Graduate Fellowship program, Panel member (1997, 1999, 2000, 2006); STAR Endocrine Disruptors program, Panel member (1997, 1999)

External Review of Departments and Organizations:

Forestry and Agricultural Biotechnology Institute (FABI), University of Pretoria, Pretoria, South Africa, August 2008

Postdoctoral Researchers Advised: 8

Graduate Students Advised: 12

Graduate Dissertation Committees: 39

External Dissertations Examined: 3