

CURRICULUM VITAE:
RONALD ROSS SEDEROFF

20 January 2008

CURRENT PROFESSIONAL POSITION

Distinguished University Professor and Edwin F. Conger Professor of Forestry and Environmental Resources
North Carolina State University, Raleigh, NC

ASSOCIATE DEPARTMENTAL MEMBERSHIPS

Department of Genetics
Department of Molecular and Structural Biochemistry.

CURRENT ADDRESS

Department of Forestry and Environmental Resources, Forest Biotechnology Group, 2500 Partners II Building,
Room 2500, 840 Main Campus Drive, Centennial Campus, North Carolina State University Box 7247, Raleigh, NC
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CURRENT RESEARCH INTERESTS

Genomics of Forest Trees
Molecular Genetics of Forest Trees
Genetic regulation of lignin biosynthesis
Molecular mechanisms in the formation of the plant cell wall
Gene expression in differentiating wood
Disease resistance in forest trees.

PREVIOUS PROFESSIONAL POSITIONS

USDA Forest Service, Berkeley, CA. 1985-1987. Senior Scientist and Plant Molecular Geneticist.
North Carolina State University, Raleigh, NC. 1978-1985. Associate Professor, Department of Genetics
University of Oregon, Eugene, OR. 1975-1978. Associate Professor/Assistant Professor, Department of Biology
Columbia University, New York, NY. 1969-1975. Assistant Professor, Dept. of Biological Sciences
University of Geneva, Geneva, Switzerland. 1967-1969. Postdoctoral Fellow, Institute of Molecular Biology
University of California, Los Angeles, CA. 1967. Acting Assistant Professor, Department of Zoology

EDUCATIONAL BACKGROUND

College degrees:

1961 Bachelor of Arts in Zoology, UCLA
1963 Master of Arts in Zoology, UCLA (Genetics)
1966 Doctor of Philosophy in Zoology, UCLA (Genetics)

Additional academic study:

1967-1969: Post-doctoral Training Post-doctoral Fellow at the Laboratoire
de Biophysique, Institute de Biologie Moleculaire, University of Geneva, Switzerland
1984: Sabbatical: On leave from the Department of Genetics, North Carolina State
University, to the Forest Genetics group, Pacific Southwest Forest and Range
Experiment Station, Berkeley, California – USDA – Forest Service (6 months)

HONORS AND AWARDS

2004 Doctor Honoris Causa, Swedish Agricultural University (Honorary Doctorate)
2003 Fellow of the American Association for the Advancement of Science
2000 Fellow of the International Academy of Wood Science
1998 Honorary Research Professor, Chinese Academy of Forestry
1997 Appointed Distinguished University Professor of Forestry, N.C. State University
1997 Appointed Adjunct Professor Nanjing Forestry University
1995 Appointed the Edwin F. Conger Professor of Forestry
1995 Elected to the National Academy of Sciences, USA

- 1986 Appointed Senior Scientist, USDA Forest Service
1965 A. Mandel Schectman Distinguished Teaching Assistant Award

PROFESSIONAL SERVICE

NATIONAL AND INTERNATIONAL COMMITTEES:

- 1988 Agricultural Biotechnology Research Advisory Committee (ABRAC) for USDA
1989 National Research Council Committee on the Future of Forestry Research
1992 Reappointed to the ABRAC
1994 Reappointed to the ABRAC
1995 to 1998 Board on Biology, National Research Council, National Academy of Sciences
1996 to 2001 Program Board for the joint project on Forest Biotechnology and
Chemistry/ Agricultural Biotechnology Swedish Foundation for Strategic Research
1998 National Research Council on Evaluation of the USDA /NRI Program
1998-2000 Member of the Commission of Life Sciences for the National Research Council
1998 National Research Council Committee on Forestry Research
2003 Member of the Electorate Nominating Committee, AAAS Section on Agriculture, Food, and
Renewable Resources

MEMBER OF PANELS FOR COMPETITIVE GRANTS PROGRAMS:

- 2005 Consortium for Plant Biotechnology Research
1999 Consortium for Plant Biotechnology Research
1997 USDA/NRI, Plant Genome Program
1992 Department of Energy, Biological Sciences Program
1991 USDA Competitive Grants, Plant Pathology Program
1987 USDA Competitive Grants, Forest Biology Program: Genetic Structure and Function
1987 NIH Postdoctoral Grants Panel (Genetics of Plants and microorganisms)
1986 USDA Competitive Grants, Genetic and Molecular Mechanisms /Environmental Stress
1985 USDA Competitive Grants, Forest Biology Program, Genetic Structure and Function
1985 Environmental Stress Program, USDA Competitive Grants
1982 Department of Energy, Biological Sciences Panel, Competitive Grants

CONSULTING AND ADVISORY SERVICE:

- 2003 Paradigm Genetics, Inc. Science Advisory Board
2000-2006 Biolex, Science Advisory Board
2001-2005 Genome Canada –
2000-2001 National Center for Genomic Research, Science Advisory Board,
1998-1999 Weyerhaeuser Corporation
1998 Shell Ltd. Consultant
1998-1999 Dow-Chemical, Consultant.
1995 Program review, GEENZ, NZ
1995 Program review, Forest Research Institute, Rotorua, NZ
1995 Program review, Department of Plant Sciences, Ohio University
1995-2000 Strategic Fund for Swedish Research
1992 NSERC, Site visit to University of British Columbia
1991-1994 Nordic Fund Project on DNA Transfer
1991 USDA site visit to Department of Microbiology, Biochemistry and Molecular Biology at the
University of Maine
1990 USDA National Research Initiative Workshop: Science Planning Committee on Plant Systems
1989 Department of Energy, Short Rotation Woody Crops Program

EDITORIAL SERVICE AND GRANT REVIEW:

- Associate Editor, Tree Genes and Genomes 2006.
Editorial Board, Tree Physiology, 2005-2006.

Editorial Board: Plant, Tissue and Organ Culture, 2000 to Present
Editorial Board, Current Opinion in Plant Science, 1997 to Present
Associate Editor for Forest Science, 1992 to 1994
Associate Editor for the Canadian Journal of Forestry Research, 1989 to 1994
Reviewer for: Plant Physiology, Plant Molecular Biology, Science, PNAS, Genetics, Planta, Phytochemistry, Nucleic Acids Research, Plant Journal, BBA, Plant Cell, Plant Breeding Reviews, Plant and Cell Physiology, In Vitro, Annals of Botany and Journal of Food and Agricultural Chemistry, Tree Physiology, Tree Genes and Genomes and International Review Board of Annals of Botany.

Reviewer for Competitive Grants for: National Science Foundation, USDA Competitive Grants, Department of Energy, NSERC (National Science and Engineering Research Council of Canada), Finnish National Science Foundation, Ohio University OURC Program, BBSRC/UK and Consortium for Plant Biotechnology Research, and Genome Canada.

INDUSTRIAL ASSOCIATIONS

Co-Organizer of NCSU Forest Biotechnology Industrial Research Consortium (FORBIRC) Phase 3. 2004 to present.

Supporting Companies for Industrial Associates Program in Forest Biotechnology, 1988-2002:

Weyerhaeuser Corporation, Westvaco Corporation, Procter and Gamble Cellulose, Scott Paper, Mead Corporation, International Paper, Potlatch Corporation, James River Corporation, Tasman Forestry, Carter Holt Harvey, Union Camp, Nippon Paper, Shell Research Ltd., Soporcel, Portugal, ForBio, Pty, Australia, Aracruz, Brazil, and Champion.

Other Industrial Collaborations: Calgene, Davis CA 1985-1986, Pioneer Hi-Bred 1997-1999, RAIZ, Portugal 2003 ArborGen 2004-2006.

TEACHING IN SPECIAL COURSES AND WORKSHOPS

- 1986 Summer Course in Forest Molecular Biology, Placerville, CA. at the Institute of Forest Genetics. Co-organizers and teachers: A-M. Stomp, M.T. Conkle, and R. Sederoff. Laboratory work in molecular genetics of conifers and conifer tissue culture. Sponsored by the USDA and the USDA Forest Service.
- 1989 Forest Biotechnology Workshop, Taipei, Taiwan. American Co-organizers and Instructors: H-M. Chang, R. Kellison, A-M. Stomp, and R.Sederoff.
- 1991 International Course in Forest Biotechnology, Caracas, Venezuela, at the Institute for Advanced Studies. Taught section on DNA markers.
- 1992/1993/1994/1995/1996: RAPD mapping. A 2- unit course on genomic mapping, taught as part of the summer biotechnology series at NCSU.
- 1996 Summer Course in Agricultural Biotechnology, San Sebastian, Spain, Universidad del Pais Vasco.
- 1999 Microarray technology: Biotechnology summer course series at NCSU. (One week -40 hours) Co-taught with R. Alscher, Ying-Hsuan Sun and Susan McCord.
- 2001 Teaching Genomics: A course designed for high school teachers to incorporate genomics into their biology curriculum. Biotechnology summer course series at NCSU. (One week-40 hours) Co-taught with Claire Kinlaw, Catherine Clark and Ernie Retzel.

PUBLICATIONS (not including abstracts)

- 1) Carlson, E.A., Sederoff, R.R. and Cogan, M. 1967. Evidence favoring a frameshift mutation mechanism for ICR-170 induced mutation in *D. melanogaster*. *Genetics* 55:295-313.
- 2) Sederoff, R. R. 1967. A rare pseudoallelic crossover between two phenotypically identical alleles at a restricted sub-locus of dumpy in *D. melanogaster*. *Nature* 216:1348-1349.

- 3) Brody, E.M., Sederoff, R.R., Bolle, A. and Epstein, R.H. 1970. Early Transcription in T4 infected cells. *Cold Spring Harbor Symp. Quant. Biol.* 35:201-211.
- 4) Sederoff, R.R., Bolle, A. and Epstein, R.H. 1971. A method for the detection of specific T4 messenger RNAs by hybridization competition. *Virology* 45:440-445. (This paper was republished in a volume of collected papers titled "mRNA Current Research I" edited by S. Riva and published by MSS Information Corp., New York, 1972.)
- 5) Sederoff, R.R., Bolle, A., Goodman, H. and Epstein, R.H. 1971. Regulation of rII and region D transcription in T4 bacteriophage: a sucrose gradient analysis. *Virology* 46:817-829.
- 6) Sederoff, R.R., Clynes, R., Poncz, M. and Hatchel, S. 1973. RNA synthesis by exogenous RNA polymerase on cytological preparations of chromosomes. *J. Cell. Biol.* 57:538-550.
- 7) Birnboim, H.C. and Sederoff, R.R. 1975. Polypyrimidine segments in *Drosophila melanogaster* DNA: I. Detection of a cryptic satellite containing polypyrimidine/polypurine DNA. *Cell* 5:173-181.
- 8) Birnboim, H.C., Straus, N.A. and Sederoff, R.R. 1975. Characterization of polypyrimidines in *Drosophila* and L-cell DNA. *Biochemistry* 14:1643-1647.
- 9) Sederoff, R.R., Lowenstein L., and Birnboim, H.C. 1975. Polypyrimidine segments in *Drosophila melanogaster* DNA II. Chromosome location and nucleotide sequence. *Cell* 5:182-194.
- 10) Sederoff, R.R., Lowenstein, L., Mayer, A., Stone, J. and Birnboim, H.C. 1975. Acid treatment of *Drosophila* DNA. *J. Histochem. Cytochem.* 23:482-491.
- 11) Birnboim, H.C., Sederoff, R.R. and Paterson, M.C. 1979. Distribution of segments in DNA from diverse organisms. *European J. Biochem.* 98:301-307.
- 12) Cseko, Y.M.T., Stone, J. and Sederoff, R.R. 1979. Nucleic acid hybridization of highly repeated DNA in extracts of single *Drosophila*. *Biochem. Biophys. Acta* 565:253-264.
- 13) Cseko, Y.M.T., Dower, N.A., Minoo, P., Lowenstein, L., Smith, G.R. and Sederoff, R.R. 1979. Evolution of polypyrimidines in *Drosophila*. *Genetics* 92:459-484.
- 14) Feigen, M.I., Johns, M.B.A., Postlethwait, J.H. and Sederoff, R.R. 1980. Purification and characterization of acid phosphatase-1 from *Drosophila melanogaster*. *J. Biol. Chem.* 255:10338-10343.
- 15) Spruill, W.M., Jr., Levings, C.S. III and Sederoff, R.R. 1980. Recombinant DNA analysis indicates that the multiple chromosomes of maize mitochondria contain different sequences. *Developmental Genet.* 1:363-378.
- 16) Schaffer, H.E. and Sederoff, R.R. 1981. Improved estimation of DNA fragment lengths from agarose gels. *Analytical. Biochem.* 115:113-122.
- 17) Sederoff, R.R., Levings, III, C.S., Timothy, D.H. and Hu, W.W. 1981. Evolution of DNA sequence organization in mitochondrial genomes of *Zea*. *Proc. Natl. Acad. Sci. USA* 78:5953-5957.
- 18) Spruill, W.M., Jr., Levings, III, C.S. and Sederoff, R.R. 1981. Organization of mitochondrial DNA in normal and Texas male-sterile cytoplasms of maize. *Developmental Genet.* 2:319-336.
- 10) Levings, III, C.S. and R.R. Sederoff. 1981. Organization of the mitochondrial genome of maize. pp 119-136, in Subtelny, S. and Abbott, U.K. (eds.), *Levels of genetic control in development. Thirty-ninth Symp. Soc. Developmental Biol.* Alan R. Liss, Inc., NY.

- 19) Levings, C.S., III, Sederoff, R.R., Hu, W.W. and Timothy, D.H. 1982. Relationships among plasmid-like DNAs of the maize mitochondria. pp 363-371 in Ciferri, O. and Dure, L. (eds.), Structure and function of plant genomes. NATO Advanced Inst. Ser., Vol. 31. Plenum Press, NY.
- 20) Sederoff, R. R. 1982. Recombinant DNA: New Techniques Create a New Frontier in Biological Sciences. Research Perspectives 1:5-8.
- 21) Chao, S., Sederoff, R.R. and Levings, III, C.S. 1983. Partial nucleotide sequence of the 18S-5S region of mitochondrial DNA. Plant Physiol. 71:190-193.
- 22) Levings, C.S., III and Sederoff, R.R. 1983. Nucleotide sequence of the S-2 mitochondrial DNA from the S cytoplasm of maize. Proc. Natl. Acad. Sci. USA 80:4055-4059.
- 23) Stone, J.S., Dower, N.A., Houseman, J., Cseko, Y.M.T. and Sederoff, R.R. 1983. The characterization of a mutant affecting DNA metabolism in the development of *D. melanogaster*. Can. J. Genet. 25:129-138.
- 24) Levings, C.S., III, Sederoff, R.R. and Timothy, D.H. 1983. Molecular basis of cytoplasmic inheritance in plants. Pp. 157-189, in M.S. Swaminathan, P.K. Gupta, and U. Sinha (eds.), Cytogenetics of crop plants. Macmillan India, Ltd., Delhi.
- 25) Chao, S., Sederoff, R.R. and Levings, III, C.S. 1984. Nucleotide sequence and evolution of the 18S ribosomal RNA gene in maize mitochondria. Nucleic Acids Res. 12:6629-6644.
- 26) Sederoff, R.R. 1984. Structural variation in mitochondrial DNA. Advances in Genet. 22:1-108.
- 27) Sederoff, R.R. and Ledig, F.T. 1985. Increasing forest productivity and value through biotechnology. 253-267 In Weyerhaeuser Forest Potentials Symp., Tacoma, WA.
- 28) Sederoff, R.R. and Levings, III, C.S. 1985. Supernumerary DNAs in plant mitochondria. 91-109 In "Genetic flux in plants". B. Hohn and E.S. Dennis eds., Springer-Verlag NY.
- 29) Paillard, M., Sederoff, R.R. and Levings, III, C.S. 1985. Nucleotide sequence of the S-1 mitochondrial DNA from the S cytoplasm of maize. Journal of the European Molecular Biology Organization 4:1125-1128.
- 30) Ledig, F.T. and Sederoff, R.R. 1985. Genetic Engineering in Forest Trees. Southern Forest Tree Improvement Conference 18:4-13. (This article was reprinted in the Proceedings of the IX World Forestry Congress, Mexico City, 5 July 1985).
- 31) Sederoff, R.R., Ronald, P., Bedinger, P., Rivin, C., Walbot, V., Bland, M., and Levings, III, C.S. 1986. Maize mitochondrial plasmid S-1. Sequences share homology with chloroplast gene psbA. Genetics 113:469-482.
- 32) Sederoff, R., Stomp, A-M, Chilton, W.S. and Moore, L. 1986. Gene transfer into loblolly pine by *Agrobacterium tumefaciens*. Bio/Technology 4:647-750.
- 33) Braun, C.J., Sisco, P.H., Sederoff, R.R. and Levings, III, C.S. 1986. Characterization of inverted repeats from plasmid-like DNAs and the maize mitochondrial genome. Current Genetics 10:625-630.
- 34) Sederoff, R., Stomp, A-M, Gwynn, G., Ford, E., Loopstra, C., Hodgskiss, P. and Chilton, W.S.. 1987. Application of recombinant DNA techniques to pines: A molecular approach to genetic engineering in forestry. In "Cell and Tissue Culture in Forestry" edited by J.M. Bonga and D.J. Durzan. p. 314-329.

- 35) Sederoff, R.R. 1987. Molecular mechanisms of mitochondrial genome evolution in higher plants. *Amer. Naturalist* 130:s30-s45.
- 36) Gwynn, B.F., Dewey, R.E., Sederoff, R.R., Timothy, D.H. and Levings, III, C.S. 1987. Sequence of the 18S-5S ribosomal gene region and the cytochrome oxidase II gene from mtDNA of *Zea diploperennis*. *Theor. and Applied Genet.* 74:781-788.
- 37) Neale, D.B. and Sederoff, R.R. 1988. Inheritance and evolution of conifer organelle genomes. In "Genetic manipulation of woody plants." eds. J. Hanover and D. Keathley. Plenum Press N.Y. pp 251-164.
- 38) Harry, D.E., Kinlaw, C.S. and Sederoff, R.R. 1988. The anaerobic stress response and its use for studying gene expression in conifers. In "Genetic manipulation of woody plants." eds. J. Hanover and D. Keathley, Plenum Press N.Y. pp 275-290.
- 39) Stomp, A.-M., Loopstra, C., Sederoff, R.R., Chilton, S., Fillatti, J., Dupper, G., Tadeschi, P. and Kinlaw, C. 1988. Development of a DNA transfer system for pines. In "Genetic manipulation of woody plants." eds. J. Hanover and D. Keathley, Plenum Press, N.Y. pp 231-241.
- 40) Kinlaw, C.S. Harry, D.E., Sleeter, D.D. and Sederoff, R.R. 1988. Using heterologous probes to isolate and characterize conifer genes. In "Molecular genetics of forest trees," eds. W.M. Cheliak and A.C. Yapa. Published by the Petawawa National Forest Institute, Chalk River, Ont., Canada. pp 9-18.
- 41) Neale D.B., Marshall, K.A., and Sederoff, R.R. 1988 Inheritance of chloroplast and mitochondrial DNA in conifers. In "Proceedings of the Frans Kempe Symposium, Molecular Genetics of Forest Trees." *Studia Forestalia Suecica*: pp 89-100
- 42) Neale D.B. and Sederoff, R.R. 1989 Paternal inheritance of chloroplast DNA and maternal inheritance of mitochondrial DNA loblolly pine. *Theor. and Applied Genetics* 77:212-216.
- 43) Harry D. E., Mordecai, K.S., Kinlaw, C.S., Loopstra, C.A. and Sederoff, R.R. 1989. DNA Sequence diversity in alcohol dehydrogenase genes from pines. *Proceedings of the Southern Forest Tree Improvement Conference* 20:373:380.
- 44) Neale, D. B., Marshall, R.A. and Sederoff, R.R. 1989. Chloroplast and mitochondrial DNA are paternally inherited in *Sequoia sempervirens* *Proc. Natl. Acad. Sci.* 86:9347-9349.
- 45) Harry, D. E., and Sederoff, R. R. 1989. *Biotechnology in Biomass Crop Production: The Relationship of Biomass Production and Genetic Engineering.* Oak Ridge National Laboratory, Environment Sciences Division. Publications No. 3411. 47 pages.
- 46) Loopstra, C. A., Stomp, A. M., and Sederoff, R.R. 1990. *Agrobacterium* mediated DNA transfer in sugar pine. *Plant Molecular Biology* 15:1-9
- 48) Stomp, A.M., Loopstra, C. A., Chilton, W. S., Sederoff, R. R. and Moore, L.W. 1990. Extended host range of *Agrobacterium tumefaciens* in the Genus *Pinus*. *Plant Physiology* 92:1226-1232.
- 49) Kinlaw, C.S., Harry, D.E. and Sederoff, R.R. 1990 Isolation and characterization of alcohol dehydrogenase cDNA clones from *Pinus radiata*. *Can. J. For. Res.* 20:1343-1350.
- 50) Whetten, R. and Sederoff, R.R.1991 Genetic Engineering of Wood. *J. Forest Ecology and Management* 43:301-316.
- 51) Sederoff, R. R. and Chang, H-M. 1991 Lignin Biosynthesis. In "Structure and Composition of Wood." eds. M. Lewin and I. Goldstein. M. Dekker, N.Y. pp 263-285.

- 52) Harry, D.E., Strauss, S.H., and Sederoff, R.R. 1991. Molecular Genetics Comes of Age: 4th Meeting, Molecular Genetics Working party, International Union of Forestry Research Organizations. *Plant Molecular Biology Reporter* 9:169-174.
- 53) Stomp, A-M., Weissinger, A.K., and Sederoff, R.R. 1991. Transient expression from microprojectile-mediated DNA transfer in *Pinus taeda*. *Plant Cell Reports* 10:187-190.
- 54) Whetten, R. and Sederoff, R.R. 1991. Phenylalanine ammonia-lyase in loblolly pine: Purification of the enzyme and isolation of a cDNA clone. *Plant Physiology* 98:380-386.
- 55) O'Malley, D.M., Porter, S., and Sederoff, R.R. 1992. Purification and characterization of cinnamyl alcohol dehydrogenase in loblolly pine. *Plant Physiology* 98:1364-1371.
- 56) Loopstra, C.A., Weissinger, A.K., and Sederoff, R.R. 1992. Transient gene expression in differentiating wood in loblolly pine. *Can. J. Forestry Research* 22:993-996.
- 57) Robertson, D. Weissinger, A.K., Glover, S., Ackley, R., and Sederoff, R.R. 1992. Transient and stable transformation following microprojectile bombardment in Norway spruce. *Plant Mol. Bio.* 19:925-935.
- 58) Bao, W., O'Malley, D., and Sederoff, R.R. 1992. Wood contains a cell wall structural protein. *Proc. Natl. Acad. Sci. USA* 89:6604-6608.
- 59) Grattapaglia, D., Chaparro, J.X., Wilcox, P., McCord, S., Werner, D., Amerson, H., McKeand, S., Bridgwater, F., Whetten, R., O'Malley, D., and Sederoff, R. 1992 Mapping in Woody Plants with RAPD Markers: Application to Breeding in Forestry and Horticulture. In "Applications of RAPD Technology to Plant Breeding". Joint Plant Breeding Symposium Series pp 37-40.
- 60) Grattapaglia, D., O'Malley, D.M. and Sederoff, R.R. 1993 Multiple applications of RAPD markers to genetic analysis in *Eucalyptus* sp. Proceedings of IUFRO Group S2.02-08 Breeding Tropical Trees; Conference, Cartagena and Cali, Columbia, SA, October 9-12, pp 436-450.
- 61) Sederoff, R. and Stomp, A-M. 1993. DNA transfer in conifers. In "Clonal Forestry I: Genetics and Biotechnology" ed. Ahuja, M.R. and Libby, W.J. Springer-Verlag Berlin Heidelberg: pp 241-255.
- 62) Bao, W., O'Malley, D.M., Whetten, R., and Sederoff, R.R. 1993. A laccase associated with lignification. *Science* 260:672-674.
- 63) O'Malley, D., Whetten, R., Bao, W., Chen, C-L., and Sederoff, R.R. 1993. The role of laccase in lignification. *The Plant Journal* 4:751-757.
- 64) Wilcox, P.L., Amerson, H.A., O'Malley, D.M., Carson, S., Carson, M.J., Kuhlman, G., and Sederoff, R.R. 1993. Fusiform rust-A model for marker assisted selection in loblolly pine. Proceedings of the Southern Forest Tree Improvement Conference 22:174-182.
- 65) Grattapaglia, D., Chaparro, J.X., Wilcox, P.L. McCord, S., Crane, B., Amerson, H., Werner, D., Liu, B.-H., O'Malley, D., Whetten, R., McKeand, S., Goldfarb, B., Greenwood, M., Kuhlman, G., Bridgwater, F., and Sederoff, R. 1993. Application of genetic markers to tree breeding. Proceedings of the Southern Forest Tree Improvement Conference 22:452-463.
- 66) Chaparro, J.X., Werner, D.J., O'Malley, D.O. and Sederoff, R.R. 1994. Targeted mapping and linkage analysis of morphological isozyme, and RAPD markers in peach. *Theoretical and Applied Genetics* 87: 805-815.

- 67) Grattapaglia, D., Sederoff, R. 1994. Genetic linkage maps of *Eucalyptus grandis* and *E. urophylla* using a pseudotestcross mapping strategy and RAPD markers. *Genetics* 137: 1121-1137.
- 68) Bao, W., O'Malley, D.M., Whetten, R., and Sederoff, R.R. 1994. A laccase in xylem cell walls of loblolly pine. *Polyphenols Actualites* 10:22-24.
- 69) Sederoff, R., Campbell, M., O'Malley, D. and Whetten, R. 1994. Genetic regulation of lignin biosynthesis and the potential modification of wood by genetic engineering in loblolly pine. *Recent Advances in Phytochemistry* vol 28:313-355.
- 70) O'Malley, D.O., Crane, B., McKeand, S. E., Liu, B-H., and Sederoff, R.R. (1994) Genomic mapping of quantitative traits in loblolly pine. *TAPPI Biological Sciences Symposium*, pp 173-177
- 71) Campbell, M.M., Whetten, R.W., and Sederoff, R.R. 1994. Cancer genes and wood formation. *TAPPI Biological Sciences Symposium*, pp 147-155.
- 72) Grattapaglia, D., Bertolucci, F.L., Penchel, R., and Sederoff, R. 1994. Molecular genetic mapping of economically important traits in *Eucalyptus grandis*. *TAPPI, Biological Science Symposium*. pp 133-137.
- 73) Loopstra, C.A., and Sederoff, R.R. 1995. Xylem specific gene expression in loblolly pine. *Plant Molecular Biology* 27:277-291.
- 74) Sederoff, R.R. DNA transfer in forest trees. 1995. In "Transformation in plants and soil micro-organisms" eds. Wang, K. Herrera-Estrella, A. and van Montagu, M. pp 150-163.
- 75) Michler, C.H., Becwar, M.R., Cullen, D., Nance, W., Sederoff, R., Slavicek, J.M. eds. 1994. Proceedings of papers presented at the 2d international symposium on applications of biotechnology to tree culture, protection, and utilization. *Gen. Tech. Report. NC-175*. St. Paul MN. US Department of Agriculture, Forest Service, North Central Forest Experiment Station, p 203.
- 76) Grattapaglia, D., Bertolucci, F.L. and Sederoff, R.R. 1995. Genetic mapping of quantitative trait loci controlling vegetative propagation in *Eucalyptus grandis* and *E. urophylla* using a pseudotestcross mapping strategy and RAPD markers. *Theoretical and Applied Genetics*. 90:933-947
- 77) Voo, K.S., Whetten, R.W., O'Malley, D.M. and Sederoff, R.R. 1995. 4 Coumarate :CoA Ligase from loblolly pine xylem: Characterization and complementary DNA cloning. *Plant Physiology* 108:85-97.
- 78) MacKay, J.J., Liu, W., Whetten, R.W., Sederoff, R.R., and O'Malley, D.M. 1995. Genetic analysis of cinnamyl alcohol dehydrogenase (Cad) in loblolly pine. Single gene inheritance, molecular characterization and evolution. *Molecular and General Genetics* 247:537-545.
- 79) Tsang, E. Charest, P. and Sederoff, R. 1995. Transformation in conifers. In "Recent Progress in Forest Biotechnology in Canada" pp 16-28.
- 80) Whetten, R. and Sederoff, R. 1995. Lignin Biosynthesis. *Plant Cell* 7:1001-1013.
- 81) Loopstra, C.A., No, E.-G., and Sederoff, R.R. 1995. Expression and function of arabinogalactan proteins in xylem of loblolly pine. *Proceedings of the 23rd SFTIC*, pp 153-160.
- 82) Grattapaglia, D., Bertolucci, F.L., Penchel, R., and Sederoff, R. 1995. Advances in Genetic mapping of *Eucalyptus grandis*. In "Eucalyptus plantations: Improving fiber yield and quality." *CRCTHF-IUFRO Conference Proceedings*. Hobart, Australia pp 392-397.

- 83) Sederoff, R. and Meagher, L. (1995) Access to intellectual property in biotechnology: constraints on the research enterprise. *Proceedings of the NABC Symposium Report 7*: 71-78.
- 84) O'Malley, D.M., Grattapaglia, D., Chaparro, J.X., Wilcox, P.L., Amerson, H.V., Liu, B.-H., Whetten, R., McKeand, S., Kuhlman, E.G., McCord, S., Crane, B., and Sederoff, R. 1996. Molecular markers, forest genetics and tree breeding. In "Genomes of Plants and Animals" 21st Stadler Genetics Symposium. Eds. Gustafson, J. Perry and Flavell, R.B. Plenum Press, N.Y. pp 87-102.
- 85) Campbell, M.M., and Sederoff, R.R. 1996 Variation in lignin content and composition: mechanisms of control and implications for the genetic improvement of plants. *Plant Physiology* 110:3-13.
- 86) Wilcox, P.L., Amerson, H.V., Kuhlman, E.G., Liu, B.-H., O'Malley, D.M., and Sederoff, R. R. 1996. Genomic mapping of resistance to fusiform rust disease in loblolly pine. *PNAS* 93: 3859-3864.
- 87) Neale D.B. and R.R. Sederoff. 1996. Genome mapping in gymnosperms: a case study in loblolly pine (*Pinus taeda* L.). In "Genomic mapping in plants" eds. Patterson, A. and R.G. Landes Co. pp 309-319.
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2006: *Forest Biotechnology*, Edited by Aluizio Borem. (in Portuguese).

1997: *Statistical Genomics: Linkage, Mapping and Analysis*, by Ben Hui Liu. CRC Press.

PATENTS

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2. Amerson, Henry V., Wilcox, P., Sederoff, R. R., Kuhlman, E. G., O'Malley, D. M., & Grattapaglia, D. (1999). Methods for within family selection of disease resistance in woody perennials using genetic markers. U.S. Patent No. 5,908,978. Washington, DC: U.S. Patent and Trademark Office.
3. MacKay, John, O'Malley, David, Whetten, Ross, Sederoff, Ronald. (1998). Method of altering lignin in trees. U.S. Patent No. 5,824,842. Washington, DC: U.S. Patent and Trademark Office.
4. Stomp; Anne-Marie, Weissinger; Arthur K, Sederoff; Ronald R. 1989. Method for transforming pine. U.S. Patent No. 5,824,842. Washington, DC: U.S. Patent and Trademark Office.

5. Sederoff; Ronald R, Stomp; Anne-Marie, Moore; Larry W. Chilton, Scott W. 1989. Method for transforming pine.

GRANT AWARDS AND CONTRACTS

- 2008 (submitted). NSF: Predictive model of lignin biosynthesis. PI: Vincent Chiang, CoPIs: Ron Sederoff, John Ralph, Joel Ducoste, Fikret Isik. 3.5 million, for 4 years.
- 2006 NSF: Genomic tool Development for the Fagaceae: R. Sederoff, PI. CoPIs: J. Tomkins and Paul Sisco: 2.7 million for 4 years.
- 2005 CPBR: Consortium for Plant Biotechnology Research Bioenergy Competition. Genomic regulation of growth and lignin in Eucalyptus. R. Sederoff and M. Kirst. \$150,000 for two years.
- 2004 CPBR: Consortium for Plant Biotechnology Research. On the mechanism of formation of dihydroconiferyl alcohol subunits in lignin of a mutant loblolly pine. Sederoff, Stasolla, Kadla, Chiang. 152,000 for 2004.
- 2003 RAIZ. SNP Discovery, Diversity and Association Studies in Eucalyptus: Candidate Genes Associated with Wood Quality Traits. 1 year, \$20,000.
- 2001 NSF. Long-Term Evolutionary Response of Huon Pine to Climatic Fluctuation. R. Sederoff (PI), B. Weir, C. Clark, R. D'Arrigo, T. Meagher. 2 years, \$29,638.
- 2001 USDA/ IFAFS. Short rotation loblolly pine with improved wood properties. H-M. Chang (PI) with (co-PI's) J. Kadla, D. O'Malley, B. Goldfarb, B. Li, and R. Sederoff. 4 years, \$3 million.
- 1999 Industrial Consortium on Genetic Control of Wood Formation. \$200,000 per year for 5 years. R. Sederoff, PI. CoPI's D. O'Malley, R. Whetten, A. Johnson.
- 1999 NSF. Integrative Graduate Training in Bioinformatics and Functional Genomics - IGERT Full Proposal. B. Sherry, B. Weir, M. King, Ron Sederoff. 4 years, \$1,571,981.
- 1999 Wood formation in the pine genome. NSF Plant Genome Program. \$4.45 million for three years. R. Sederoff (PI) with (co-Pi's) D. O'Malley, R. Whetten, B-H. Liu, A. Johnson, T. Kepler, D. Neale, C. Kinlaw, E. Retzel, C. Loopstra, J. MacKay, G. Peter.
- 1997 Pine Gene Discovery Project. Ross Whetten, PI and Ron Sederoff CoPI. Department of Energy. Agenda 2020. \$574,985, 1997-2001.
- 1997 Genetic modification of lignin in loblolly pine. USDA/NRI Wood Utilization. \$110,000 for two years. R. Sederoff and J. MacKay.
- 1996 Computers for DNA sequence informatics. National Science Foundation, \$120,000. R. Sederoff and B. Wiegmann.
- 1996 A high throughput DNA sequencing facility for NCSU. \$184,000 from North Carolina Biotechnology Center. R. Sederoff and B. Wiegmann.
- 1995 Molecular markers and management of fusiform rust resistance. USDA/NRI, Plant Pathology, H. Amerson, D. O'Malley and R. Sederoff. \$140,000, for 3 years.
- 1995 Transcription factors in wood formation. Department of Energy, Energy Biosciences. \$315,000 for three years. R. Sederoff, M. Campbell, R. Whetten and D. O'Malley.
- 1995 Expression and mapping of cDNAs in loblolly pine. USDA/NRI, Plant Genome Program. \$167,000 for two years. R. Whetten, M. Campbell, and R. Sederoff.
- 1994 Genomic map merging. Plant Genome Program USDA/NRI \$100,000 for two years. B. Liu and R. Sederoff.
- 1993 Extensin-like protein in the wood cell wall. USDA Wood Utilization Program. \$155,000 for 30 months. R. Sederoff, R. Whetten and M. Tierney.
- 1993 National Needs Graduate Research Training Grant in Plant Biotechnology. USDA. \$110,000 for three years. Graduate Research Training in Forest Biotechnology.
- 1993 Industrial Consortium on Genetic Engineering of Lignin Biosynthesis and Wood Properties. 1993-1998, \$700,000 for 5 years. R. Sederoff, D. O'Malley, R. Whetten, B. Liu.
- 1992 Genomic mapping of host factors for rust resistance. USDA Plant Genome Program. \$210,000 for three years. R. Sederoff, H. Amerson and D. O'Malley.

- 1992 Transcription Factors Regulating Lignin Biosynthesis in Xylem. Department of Energy. \$194,000 for two years. R. Sederoff, D. O'Malley and R. Whetten.
- 1992 Half sib RAPD analysis of QTLs underlying early shoot growth in loblolly pine. \$220,000 for three years. D. O'Malley, S. McKeand and R. Sederoff.
- 1991 Regulation of Phenylalanine ammonia-lyase in developing wood. USDA Competitive Grants (Wood Utilization Panel) \$94,000 for two years. 1991-1993 R. Whetten (PI) and R. Sederoff (co-PI).
- 1991 Molecular markers to accelerate breeding in loblolly pine. USDA Competitive Grants (Plant Genome Program) \$140,000 for two years. R. Sederoff (PI) and D. O'Malley (co-PI).
- 1991 Developmental regulation of cinnamyl alcohol dehydrogenase in pine. USDA Competitive Grants 1991-1993. \$110,000 two years. D. O'Malley (PI) R. Sederoff (Co-PI).
- 1990 Regulation of xylem specific gene expression in loblolly pine. USDA competitive grants 1990-1992, 2 years \$130,000. R. Sederoff (PI) and C.A. Loopstra (co-PI).
- 1989 Training Grant: McKnight Program in Plant Biology at North Carolina State University. \$750,000, 3 years. R. Sederoff was one of 12 faculty in the Program.
- 1988 Isolation of a lignin-biosynthetic gene from loblolly pine. USDA Competitive Grants, 1988-1990, \$140,000, 2 years. R. Sederoff (PI), A-M. Stomp and H-M. Chang (co-PI's).
- 1988 Molecular Studies of Wood Productivity. USDA Forest Service Cooperative Agreement (\$32,000). D. O'Malley and R. Sederoff.
- 1987 Mechanisms of inheritance and transmission of conifer organelle genomes, USDA Competitive Grants, 1987-1989, \$115,000, 2 years. R, Sederoff and D. Neale.
- 1987 Industrial Consortium on Genetic Engineering of Lignin Biosynthesis, 1987-1992, \$600,000, 5 years. A-M. Stomp, H-M.Chang, D.M. O'Malley, and R. Sederoff.
- 1986 Forest Biology program: Genetic Structure and Function. Alcohol dehydrogenase genes in pines, USDA Competitive Grants, \$97,000, 2 years. David Harry (PI), Claire Kinlaw and Ron Sederoff (co-PI's).
- 1985 A DNA transfer system for pine, Forest Biology Program: Genetic Structure and Function. USDA Competitive Grants, 1985-1988, \$184,000, 3 years. R. Sederoff (PI), A-M. Stomp (co-PI).
- 1985 A workshop in forest biotechnology, Forest Biology Program: Genetic Structure and Function. USDA Competitive Grants, 1986, \$44,000, 3 months, F.T. Ledig (PI), Sederoff, Stomp and Conkle (co-PI's).
- 1984 Genetic Engineering Technology for Loblolly Pine. USDA Forest Service: Cooperative Agreement Number A8fs-20, 147, 1984-1986, \$36,000, 1.5 years, H.V. Amerson and A-M. Stomp.
- 1983 Variation of nuclear DNA in Zea, Pioneer Hi-bred International, 1983-1984, \$23,000, 1 year.
- 1982 Transcription of plasmid-like DNAs in maize mitochondria, USDA Competitive Grants: Genetic Mechanisms for Crop Improvement, 1982-1985 \$105,000, 3 years. C.S. Levings, III (PI), R. Sederoff (co-PI).
- 1981 Selection for improved cysteine and methionine content in crop plants, USDA Competitive Grants: Genetic Mechanisms for Crop Improvement, 1982, \$29,451, 1 year. J.C. Sorensen and R. Sederoff.
- 1980 Isolation of the triazine resistant genes in Brassica, USDA Competitive Grants: Genetic Mechanisms for Crop Improvement, 1980-1983, \$75,000, 3 years, R. Sederoff.
- 1979 Transposable elements in maize as potential vectors for genetic engineering, USDA Competitive Grants: Genetic Mechanisms for Crop Improvement. 1979-1982, \$167,000, 3 years, C.S. Levings, III (PI), R. Sederoff (co-PI).
- 1977 Genetic analysis of simple sequence DNA, National Institutes of Health, Genetics Program, General Medical Sciences. 1977-1980, \$202,000, 3 years.
- 1975 Polypyrimidines in Drosophila DNA, National Science Foundation: Genetic Biology, 1975-1977, \$30,000, 2 years.
- 1973 RNA synthesis during differentiation, National Institutes of Health, Genetics Program, General Medical Sciences, 1973-1977, \$117,000, 3 years.

- 1970 RNA synthesis during differentiation, National Institutes of Health, Genetics Section, General Medical Sciences, 1970-1973, \$108,000, 3 years.
- 1970 Properties of Y Chromosome specific DNA and RNA, National Science Foundation, Genetic Biology, 1970-1972, \$40,000, 2 years.

POSTDOCTORAL ASSOCIATES AND VISITING FACULTY

- Claudio Stasolla, Postdoctoral Research Associate, NSERC fellow, 2001 – 2002.
- Len Van Zyl, Postdoctoral Research Associate 1999 – 2001.
- Kei'ichi Baba, Visiting Scientist, Wood Research Institute, Kyoto, Japan.
- Kenji Kanazawa, Visiting Scientist, Hokkaido Agricultural Expt. Station, Japan.
- Yasushi Sato, Monobusho Grant, Visiting Scientist, Ehime University, Japan.
- Rongling Wu, Postdoctoral Research Associate 1996-1998.
- Allan Wenck, Postdoctoral Research Associate 1997-1998.
- Isabel Allona Alberich, Fulbright Postdoctoral Fellow 1995-1998.
- Glen Dale, Fulbright Postdoctoral Fellow 1995.
- Malcolm Campbell, Visiting Research Assistant Professor 1993-1996.
- Jose X. Chaparro, Postdoctoral Research Associate 1993.
- Kheng Cheah, Visiting Industrial Scientist 1992-1993.
- Reza Yasdani, Visiting Scientist, Agricultural Genetics, University of Uppsala, Sweden 1992.
- Ross Whetten, Postdoctoral Research Associate, NC State University 1989 to 1991.
- Dominique Robertson, McKnight Postdoctoral Research Associate 1989-1991.
- Wei-Young Wang, Visiting Scientist, National Forestry Institute, Taipei, Taiwan 1990.
- Juhani Haggman, Visiting Scientist, The Finnish Forest Research Institute 1988-1989.
- Hely Haggman, Visiting Scientist, Finnish Forest Research Institute 1988-1989.
- David O'Malley, Postdoctoral Research Associate, NC State University, 1988-1990.
- Claire S. Kinlaw, Postdoctoral Research Associate, USDA Forest Service 1986-1987.
- David E. Harry, Postdoctoral Research Associate, USDA Forest Service 1986-1987.
- David Neale, Postdoctoral Research Associate, USDA Forest Service 1986-1987.
- Robert Teasdale, Visiting Scientist, NSF, USA-Australia Cooperative Exchange Program 1986 Aug.-Sept.
Professor, Griffith University, Australia.
- Anne-Marie Stomp, Visiting Faculty from NC State University, Assistant Professor, Dept. of Forestry 1985-1986.
- Steve Strauss, Visiting Faculty from Oregon State University, Dept. of Forestry 1985.
- John Doebley, Postdoctoral Associate, now Professor, University of Minnesota, 1983-1984.
- Georgina Werner, Research Scientist, Union Carbide, 1981.
- C.D. Grace, Research Associate, University of Oregon 1975.
- Allan Mayer, Research Faculty, NYU School of Medicine 1974.

DISSERTATIONS AND THESES DIRECTED

- Catherine Clark, Forestry, NC State University
- Matias Kirst, Genomics, NC State University
- Shuku Sun, Forestry, NC State University
- Alexander Myburg, Genetics, NC State University
- Yi Zhang, Genetics, NC State University
- Susan Rodzik, Biochemistry, NC State University
- Ying-Hsuan Sun, Forestry, NC State University
- Alison Morse, Genetics, NC State University
- David Remington, Forestry, NC State University
- Wilfred Vermeris, Genetics, NC State University
- Christina Almeida, Forestry, NC State University
- Bonnie Furman, Genetics, NC State University
- John MacKay, Genetics, NC State University

Phillip Wilcox, Forestry, NC State University
Kui Shin Voo, Genetics, NC State University
Dario Grattapaglia, Genetics and Forestry, Co-major, NC State University
Wei Wei Liu, Biochemistry, NC State University (Masters)
Jose Chaparro, Horticulture, NC State University
Wuli Bao, Forestry and Genetics Co-major, NC State University
Carol Loopstra, Genetics and Forestry, Co-major, NC State University
Ben A. Bergmann, Forestry, NC State University
Babette Gwynn, NC State University (Masters)
Shiaoman Chao, Genetics, NC State University
Daniel Tisch, Genetics, NC State University (Masters)
Marc Feigen, Biology, University of Oregon
Parviz Minoo, Biology, Univ. of Oregon
James Stone, Biological Sciences, Columbia Univ., NY (Masters)
Linda Lowenstein, Biology, Columbia Univ., NY (MA and Ph.D.)
Yara Cseko, Biological Sciences, Columbia Univ., NY (MA and Ph.D.)

MEMBERSHIP ON ADDITIONAL GRADUATE STUDENT COMMITTEES

2007- Evandro Novaes, Forest Resources and Conservation, University of Florida.

2005- Christine Duarte, Bioinformatics

2005-Kitt Payne, Forestry.

1998- Michael Whittier, CVM.

Cameron Morris, Wood and Paper Science

Zhenjian Hu, Wood and Paper Science

Christopher Whittier, Veterinary Medicine

Victor Busov, Forestry

Wendy Pline, Crop Science

Wenjun Zhao, Genetics

Patricia Eagle, Biochemistry

Erin Egelkraut, Biochemistry

Lynn Senior, Genetics

Ye-Hee Yi, Crop Science

Ke Dong, Plant Pathology

Ling Li, Genetics

Jill Stevenson, Botany

Erika Kosal, Zoology

Liz Johnson, Crop Science

STANDING AND AD HOC NCSU COMMITTEES.

2007: The Jordan Professorship Committee

2006: O. Max Gardner Award Committee.

2006: Lifelong Faculty Committee.

2001, 2002, 2003 Post-Tenure Reviews: Dept of Forestry – College of Natural Resources

2001, 2002, 2003 Human Rights Week

UNIVERSITY TEACHING

North Carolina State University

FOR 603 and FOR 803 - Grant Writing – combined course 2002-2006, guest lecture

FOR 411 - Genomics and Gene Discovery, guest lecture 2002-2006

BIT 815J - Microarray Course, 2002, guest lecture

GN725 - Forest Genetics, Spring Semester 2001, guest lecture

Genomics Journal Club, Spring 2001
Microarray summer course, Biotechnology series 1999
Mapping with RAPD markers, Biotechnology Summer Course series
1992,1993,1994, 1995, 1996 with O'Malley, Liu, and McCord
Forest Biotechnology Graduate Seminar series with David O'Malley 1992
Molecular Genetics Laboratory, Advanced Graduate Level 1981, 1983
Molecular Genetics, Graduate Level 1983
Molecular Cytogenetics, Graduate Level, 1979, 1981, 1983
Evolution, Undergraduate Level, 1980

University of Oregon

Genetics of Eukaryotes, Undergraduate Level, 1975, 1976, 1977
Genetics of Drosophila Lab, Undergraduate Level, 1976, 1977, 1978
Developmental Genetics, Graduate Level, 1976, 1978
Genetics Seminar, Graduate Level, 1975, 1976, 1977, 1978
Gene Action and Development, Undergraduate Level, 1977

Columbia University, New York

Introduction to Genetics, Undergraduate Level, 1970-1975
Advanced Genetics, Graduate Level, 1970, 1972, 1974

University of California, Los Angeles

Introduction to Biology, 1967
Human Anatomy Laboratory, 1963 (teaching assistant)
Genetics Laboratory, 1962

INVITED SEMINARS, PRESENTATIONS AND SYMPOSIA (1983-present).

- 2008: Departmental symposium: Forestry and Environmental Resources. Invited speaker.
2007: Bioinformatics Research Center, North Carolina State University, Invited seminar,
Panel member for Workshop: Genetically engineered Forest Trees, Raleigh NC.
Schatz Symposium on Forest Trees, Mont Alto Penn.State University. Invited speaker.
Marcus Wallenberg Prize Symposium, Invited lecture, Stockholm, Sweden.
Species Protection through Disease Resistance: Workshop, Invited speaker, Raleigh,NC.
Pine Genome Initiative, Washington DC. Invited speaker.
2006 Sackler Symposium, NAS, Washington DC, invited presentation.
2005 NE Chestnut working group, Hamilton NY.
AF&PA visit to NCSU: invited presentation.
Video Teleconference on Forest Biotechnology NCSU. Extension Forestry Issues Forum
Gordon Conference: Quantitative Genetics and Genomics, Ventura CA, invited speaker.
Department of Biology, University of Iowa, invited seminar.
2004, Invited lecture, Swedish Agricultural University, Uppsala
Pine genome workshop, Jekyll Island, GA.
CPBR workshop presentation, Washington DC.
DOE invited presentation, Atlanta GA.
2003 Weyerhaeuser – invited seminar
Bayer, RTP, NC – invited seminar
2002 Plant Genome Conference
2002 Genome Canada Workshop, San Diego, CA
Orlando, FL plenary symposium IATPC&B Congress
2001 Genetic Science and the New Millennium Symposium, Raleigh, NC.
Quantitative Genetic Gordon Conference, Ventura, CA
International Paper Co. Executive workshop, Durham, NC
Genecore, Invited presentation, Palo Alto, CA
Southern Section Amer. Soc. Plant Physiol. Raleigh, NC

- Western Forest Genetic Association, Davis, CA
 Wood Biotechnology, Bordeaux, France
 Lignin Biotechnology, Presymposium, Helsinki, Finland
 Conference on Agricultural GMO's. Stockholm, Sweden
 Animal Genomics Symposium, Raleigh, NC
 Friends of the Library, Raleigh, NC
 Swedish University of Agricultural Sciences, Uppsala, Sweden
 American Academy of Microbiology Colloquium, Ithaca, NY
- 2000 Forest Tree Workshop, Plant and Animal Genome, San Diego, CA
 Department of Biology, Debate on GMO's East Carolina University, NC
 Cell Wall Gordon Conference, Meriden, NH
 Workshop on Genetically Modified Crops, NC State University, Raleigh, NC
 International Wood Science Symposium, Taipei, Taiwan
 International Conference on Waste Management, Taipei, Taiwan
 Bio 2000, Session on Forest Biotechnology, Boston, MA
 Rotary Club, Raleigh, NC
 CAMCORE annual meeting, NC State University, Raleigh, NC
 Com Bio 2000, Wellington, NZ
 Forestry Research, Rotorua, NZ
 Banbury Conference, Cold Spring Harbor, NY
- 1999 National Academy of Sciences Symposium at NC State University, Raleigh, NC
 Weyerhaeuser Workshop on Forest Biotechnology, Tacoma, WA
 Plant Research Laboratory, Michigan State University
 Department of Genetics, University of Wisconsin
 Plant Breeding Group, University of Wisconsin
 Genomics Symposium, Duke University, Durham, NC
 CHI Agricultural Biotechnology Symposium, Minneapolis, MN
 CBWG Symposium on wood formation, Oxford, England, UK
 North Carolina Agriculture and Technology University, Greensboro, NC
 NSF Plant Genome Awardees Conference, Washington, DC
 AF&PA Research cooperative Conference, Atlanta, GA
 Tree Biotechnology Symposium lecture, Pune, India
- 1998 Forest Tree Workshop, Plant and Animal Genome VI, San Diego, CA
 Tuesday Forum, NC State University
 Department of Forestry, NC State University
 Conference on Statistical Genetics, Purdue University, IN
 Bioscience Symposium, Royal Academy of Sweden, Stockholm, Sweden
 REDBIO, Agricultural Biotechnology Conference, Havana, Cuba
 Conifer Biotechnology Working Group Conference, Rutgers, New Jersey
 Conference in Forest Biotechnology, HRI, Shell Ltd. E. Malling, UK
 Department of Plant Science, Oxford. England, UK
 Cold Spring Harbor Laboratory, Arabidopsis Course, NY
 DuPont, Agricultural Biotechnology, Wilmington Delaware
 International Congress of Genetics, Beijing, China
 Chinese Academy of Forestry, Beijing, China
 Nanjing Forestry University, China
 IUFRO International Congress, Beijing, China
 University of Madrid, Spain
 IBET, Biotechnology Institute, Lisbon, Portugal
 Monsanto, St. Louis, MO
 Virginia Tech University, Biotechnology

- University of Georgia
Weyerhaeuser Research Center, Tacoma, Washington
- 1997 Forest Tree Workshop, Plant & Animal Genome 5, San Diego, CA
Department of Chemistry, University of Ohio, Athens
ForBio Research Ltd. Brisbane, Australia
University of Chicago, Genetics Minisymposium
University of Arizona, Tucson
Sigma Xi, BASF, Research Triangle Park, NC.
Institute of Paper Science and Technology, Atlanta, GA
Chinese Academy of Forestry, Beijing, China
Nanjing Forestry University, Nanjing, China
Swedish Plant Physiology Society, Uppsala, Sweden
Workshop presentation, Agricultural Biotechnology, Uppsala, Sweden
Presidents Circle, National Academy, Woods Hole, MA
American Association of Plant Physiology, Vancouver, Canada
Molecular Genetics of Forest Trees, IUFRO, Quebec, Canada
Eucalypt: IUFRO meeting, Salvador, Brazil
Forest Biotechnology Conference, Blomfontein, South Africa
University of Stellenbosch, South Africa
International Society of Plant Molecular Biology, Congress in Singapore
- 1996 Regional Symposium of the NAS, Duke University, Duke, NC
Agricultural Biotechnology, Dupont, Wilmington, DE
Annual Meeting ForBio Ltd. Brisbane, Australia
Plant Cell Mol. Biol. University of Georgia, Athens
SRIEG Conference on Molecular Markers, Houston, TX
Cold Spring Harbor Arabidopsis Course
Union Camp Research Center, Princeton, NJ
Agricultural Biotechnology Course, San Sebastian, Spain
Department of Horticulture, Helsinki University
Forest Biotechnology Symposium, Bioscience Days, Helsinki
TAPPI Meeting, Seattle, WA
Pioneer International, Johnson City, Iowa
Workshop presentation on Intellectual Property Rights, NRC, Washington DC
Horticultural Research, Auckland, New Zealand
Forestry Research Institute, Rotorua, New Zealand
- 1995 Gordon Conference on Quantitative Genetics and Biotechnology
Program in Genetics, Duke University
Inland Empire Tree Improvement Cooperative
Departments of Forestry and MMBB, University of Idaho
Institute of Paper Science and Technology, Atlanta, GA
Howard Hughes Undergraduate Science Discovery Speaker, Rutgers University, NJ
Biodiversity Program, Rutgers University, Newark, NJ
22nd Stadler Genetics Symposium, Columbia MO
NCSU Tree Improvement Workshop, Atlanta, Georgia
National Agricultural Biotechnology Council Workshop, Washington, DC
REDBIO Agricultural Biotechnology Symposium, Iguazu, Argentina
Aracruz Cellulose, Aracruz, Brazil
CENARGEN, EMBRAPA, Brasilia, Brazil
CBWG, Conference, Brisbane, Australia
American Society of Plant Physiology, Charlotte, NC
Pasteur Institute Symposium, Paris, France

- IUFRO Conference on Molecular Genetics of Trees, Gent, Belgium
 ESPRA Symposium, SUNY, Syracuse, NY
- 1994: Agricultural Biotechnology Keystone Symposium Speaker, Keystone, CO
 Plant Genome II, Symposium Speaker, San Diego, CA
 Laval University, Quebec City, Quebec, Canada
 Laboratory of Genetics, University of Gent, Gent, Belgium
 Dept. of Forest Genetics, Swedish Agricultural University, Uppsala
 Joint meeting of the Nordic Fund Programs in Plant Biotechnology, Finland
 Applied Biosystems (Perkin Elmer Cetus), Redwood City, CA
 International Plant Molecular Biology Symposium, Amsterdam, The Netherlands
 Shell Research, Sittingbourne, England
 Zeneca Seeds, Jealotts Hill, Bracknell, Berkshire, England.
 American Society of Plant Physiology, Corvallis, Oregon
 International Wood Biotechnology Symposium, Tokyo, Japan
 Forest Research Institute Rotorua, New Zealand
 Department of Botany, University of Melbourne, Australia
 Wood Research Institute, Clayton, Australia
 Forestry Research, Canberra, Australia
 Plant Biotechnology, Canberra, Australia
 ForBio, Brisbane, Australia
 Biochemistry and Plant Physiology Conference, Australia
 Australian Plant Physiology Conference
 Department of Plant Pathology, University of Nebraska
 Boyce Thompson Institute, Cornell University, Ithaca, NY
 Cold Spring Harbor Mapping Course, Cold Harbor Springs, NY
 John Innes Institute, Norwich England
 Weyerhaeuser Technical Center, Tacoma, WA
- 1993: International Paper Company, Bainbridge GA.
 Cell Wall Keystone Meeting, Keystone, CO
 NC Biotechnology Center, Biotech Retreat, Beaufort, NC
 Joint McKnight Retreat, NC State University-Purdue University
 Quantitative Genetics Gordon Conference, Ventura CA
 Southern Forest Tree Improvement Conference, Atlanta, GA
 Agronomy Society, Minneapolis, MN
 Phytochemistry Meetings, Asilomar, CA
 Genomic Fingerprinting Workshop Madrid, Spain
 IUFRO Somatic Cell Genetics, Balsain, Spain
 Soporcel, Lisbon, Portugal
 NBIAP Workshop, Washington, DC
 International Congress of Botany: Cell walls & Tree Breeding
 Tokyo University of Agriculture and Technology,
 International Symposium of Wood Biotechnology, Japan
 Nippon Paper Co., Tokyo, Japan
 Cold Spring Harbor Mapping course, Cold Spring Harbor, NY
- 1992 AAAS, Chicago, IL
 Plant Genome Meeting, San Diego CA
 Moderator and discussion session, Genetic markers Conference, Rutgers University, NJ
 Swedish Agricultural University, Uppsala – invited seminar.
 Joensuu, Finland
 Tromso, Norway
 University of Sweden

- Purdue University, Indiana, IN
 Plant Physiology Regional Meeting, Duke University, Durham, NC
 University of Georgia, Athens, GA
 International Cell and Tissue Culture Meeting, Orlando, FL
 Virginia Polytechnic University, Blacksburg, VA
 University of Florida, Gainesville, FL
 Agronomy/Horticulture Society, Minneapolis, MN
 Cold Spring Harbor Mapping Course, Cold Spring Harbor, NY
 Washington University, St. Louis, MO
- 1991 International Symposium on Forest Biotechnology and Application, Columbus, OH
 Institute of Paper Science and Technology, Atlanta, GA
 Meeting on Marker Aided Selection, Gatlinburg, TN
 International Course in Forest Biotechnology at the Institute for Advanced Studies, Caracas, Venezuela
 Department of Forestry and the Biotechnology Program, Oregon State University
 Department of Biochemistry Biotechnology, Washington State University, Pullman
 Plant Biotechnology Institute, University of Saskatchewan, Saskatoon, Canada
 Biotechnology Institute, University of British Columbia, Vancouver, Canada
 Swedish Agricultural University, Uppsala, Sweden
 Department of Forestry, University of Joensuu, Finland
 Nordic Fund Conference on DNA transfer in Nordic Tree Species, Finland
- 1990 Texas A&M University, Department of Forestry
 Monsanto Corporation, St. Chesterfield, MO
 IUFRO Conference on Molecular Genetics of Forest Trees, Fallen Leaf Lake, CA.
 South Carolina Meeting of the Society of American Foresters
 Laboratorium voor Genetica, University of Ghent, Belgium
 IUFRO Congress, Molecular Genetics section, Montreal, Canada
 Center for Environmental Research, GSF at Munich, Germany
 Conifer Biotechnology Working Group, Sittingbourne, England
 John Innes Institute, Norwich, England
- 1989 American Association of the Advancement of Science, San Francisco CA
 Sino-American Workshop in Forest Biotechnology, Taipei, Taiwan
 Bioscience Days, Helsinki, Finland
 Department of Forestry, Joensuu University, Finland
 Symposium for the National Tissue Culture Meeting, Orlando, Florida
 Graduate Ethics Colloquium, North Carolina State University
 Annual meeting of the Noble Foundation, Ardmore, Oklahoma
 Cold tolerance in eucalyptus, Raleigh, NC
- 1988 Universite de Laval, Department of Forest Biology, Quebec, Canada
 Natural Resource Societies Science Day (Forest Biotechnology), Washington, DC
 Department of Genetics, NC State University
 Department of Biochemistry, NC State University
 Department of Biology, University of Nebraska, Lincoln
 International Conifer Tissue Culture Working Group, Saskatoon, Saskatchewan, Canada
- 1987 Plant Biotechnology Institute, Saskatoon, Saskatchewan, Canada
 USDA Forest Service, Southeast Station, Annual Meeting, Jekyll Island, SC
 Biotechnology Group, University of British Columbia
 Department of Forestry, University of British Columbia
 Department of Biology, University of Victoria, British Columbia
 USDA Forest Service, Washington Office, Washington DC

Biotechnology of Forest Trees, Aqueduct, NC

- 1986 Carnegie Institute of Washington, Stanford University, CA
American Society of Naturalists, National Meeting
Biotechnology of Woody Crops, Uppsala, Sweden
Department of Plant Pathology, University of California, Berkeley
- 1985 International Paper Company, Tuxedo Park, New York
Department of Forestry, University of California, Berkeley
Stauffer Chemical Company, Richmond, California
Southern Forest Tree Improvement Conference, Long Beach, MS
University of Alberta, Canadian Pacific Symposium
IUFRO Molecular genetics working party, Ohio State University
Forest products laboratory, Richmond, CA
- 1984 Forest Genetics, PSW, Berkeley, CA
Weyerhaeuser Research Center, Tacoma, WA
Crown Zellerbach Research Center, Portland, OR
Zoecon, Inc., Palo Alto, CA
Calgene, Davis, California
Workshop on Biotechnology, Institute of Forest Genetics, Placerville, CA
- 1983 Southern Forest Tree Improvement Workshop, Quail Roost, NC
Annual Meeting of the Tissue Culture Forestry Cooperative, NC State University
Columbia University Medical School, Department of Human Genetics, NY

CONFERENCES CO-ORGANIZED

- 2000 The Arabidopsis Genome and the Genetics of Trees, Banbury Conference
1997 International Wood Biotechnology Conference, Canberra, Australia
1997 International Wood Biotechnology Conference, Canberra, Australia
1994 Forest Biotechnology International Conference Minneapolis MN
1994 International Wood Biotechnology Conference, Tokyo, Japan
1992 International Forest Biotechnology Working Group, Raleigh NC

MEDIA INTERVIEWS

- 2003 Tree that towers is kin to lowly flower, News & Observer, Raleigh, NC
2000 News and Observer, Raleigh NC, Genomics at NC State University
National Public Radio, The Environment Show, interviewed by Peter Burley on
the genetic modification of trees.