

ALAN B. BENNETT

Executive Director, Technology Transfer and Research Administration and
Professor, College of Agricultural & Environmental Sciences, UC Davis
University of California
tel (530) 752-1411 or (510) 587-6000
fax (916) 752-4554
e-mail abbennett@ucdavis.edu

EDUCATION

University of California	B.S.	1977	Plant Physiology
Cornell University	Ph.D.	1982	Plant Physiology

RESEARCH INTERESTS

Molecular biology of tomato fruit development and ripening; cell wall disassembly.

RESEARCH AND/OR PROFESSIONAL EXPERIENCE

2000-present	Executive Director, Research Administration and Technology Transfer, UCOP
1993-1999	Associate Dean, College of Agricultural & Environmental Sciences, UC Davis
1991-present	Professor, Department of Vegetable Crops, University of California, Davis
1990-1993	Chair, Department of Vegetable Crops, University of California, Davis
1987-1991	Associate Professor, Department of Vegetable Crops, University of California, Davis
1983-1987	Assistant Professor, Department of Vegetable Crops, University of California, Davis
1982-1983	Postdoctoral Research Associate, Section of Plant Biology, Cornell University

PROFESSIONAL SOCIETIES AND ACTIVITIES

AAAS Section on Ag. Food and Renewable Resources, Member-at-large (elected) 2001-2006
American Association for the Advancement of Science
American Society of Plant Biology
Editorial Board, Plant Physiology 1986-1992
Monitoring Editor, Plant Physiology 1992-1997
Editorial Board, Plant & Cell Physiology 1997-2000
Editorial Board, Molecular Breeding, 1993-1997
USDA Competitive Research Grants Panel Member, 1988
National Science Foundation Panel Member, Cellular Biochemistry, 1990-1993
BARD Technical Advisory Committee Member, 1993-1996
Vice-Chair, Gordon Research Conference, Plant Senescence, 1992
Chair, Gordon Research Conference, Plant Senescence and Programmed Cell Death, 1996
Council member, National Agricultural Biotechnology Council, 1995-1999
Visiting Professor, Ecole Nationale Supérieure Agronomique d' Toulouse, 1997

PROFESSIONAL SERVICE

- 1997-2000 Editorial Committee, Plant & Cell Physiology
- 1994-1997 Editorial Board, Molecular Breeding
- 1993-1996 Member, Binational Agricultural Research & Development Fund-Technical Advisory Committee (BARD-TAC).
- 1992-1997 Monitoring Editor, Plant Physiology
- 1989-1993 Panel Member, National Science Foundation, Cellular Biochemistry Program

Ad Hoc Reviewer:

Grant applications: USDA/NRI; National Science Foundation; Molecular Biosciences Program, Department of Energy; Binational Agricultural Research & Development Fund (BARD).

Publications: Archives of Biochemistry & Biophysics; Proceedings of the National Academy of Sciences; The Plant Journal; The Plant Cell; Plant Physiology & Biochemistry; Planta; Science; Journal of the American Society for Horticultural Science, Plant Physiology, Journal of Biological Chemistry.

EXTERNAL PROFESSIONAL ACTIVITIES

- 1999-present Consultant to M&M Mars, Inc.: Review of plant genetics programs.
- 1998-present: Scientific Advisory Board Member, Senesco, Inc.
- 1992-1997: Scientific Advisory Board Chair, United Agricorp.
- 1992-1995: Consultant to Monsanto Company: Genetic modification of tomato fruit quality.
- 1992: Consultant to BHN: Review of program to commercialize genetically modified tomato.
- 1992: Consultant to Cushman, Darby & Cushman: Intellectual property interference.
- 1991: Consultant to Hunt/Wesson: Genetic improvement of tomato processing quality.
- 1989-91: Consultant to Campbell's Soup: Biotechnology applications in tomato improvement.
- 1988: Consultant to DuPont deNemours Co: Biotechnology applications in fresh produce.

HISTORY OF RESEARCH SUPPORT

I. FEDERAL OR FOUNDATION SOURCES

National Science Foundation (Metabolic Biology) PCM-84-04990 *"Biochemical Studies of Proton Transport in Plant Cells"* 1984-1987 (no-cost extension to 1988), \$125,000.

USDA/CRGO 87-CRCR-1-2525 (Plant Growth & Development) *"Polygalacturonase: Enzyme Function and Gene Regulation During Fruit Ripening"* 1987-1989, \$97,000.

National Science Foundation (Metabolic Biology) PCM-8404990 *"Biochemical Studies of Proton Transport in Plant Cells"* 1988-1991 (no-cost extension to 1992), \$180,000.

Binational Agricultural Research and Development Fund (BARD) US-1321-87 *"Sucrose Metabolism in Developing Fruits of Cultivated and Wild Lycopersicon Species"* 1988-1991, \$120,000 (Israel collaborator: A. Schaffer).

USDA/CRGO 89-37261-4641 (Plant Growth & Development) *"Function of Cell Wall Hydrolases During Transgenic Tomato Fruit Ripening"* 1989-1991, \$97,000.

National Science Foundation (Cellular Biochemistry) DCB-89-16127 *"Cloning and Transgenic Expression of Higher Plant Inhibitors of Pathogen Polygalacturonases"* 1990-1993, \$170,000 (Co-PI: J. Labavitch).

Binational Agricultural Research and Development Fund (BARD) US-1872-90C *"Sucrose Metabolism in Developing Fruits of Cultivated and Wild Lycopersicon Species"* 1991-1994, \$130,000 (Israel collaborator: A. Schaffer).

USDA/CRGO 91-37304-6508 (Plant Growth & Development) *"Function of Cell Wall Hydrolases During Transgenic Tomato Fruit Ripening"* 1991-1993, \$95,000 (extended to 1995).

Binational Agricultural Research and Development Fund (BARD) IS-1805-90 *"Role of a Molecular Chaperone in Wheat Storage Protein Assembly"* 1991-1994, \$125,000 (Israel co-PI: G. Gallili).

National Science Foundation (Cell Biology) *"Higher Plant Ca²⁺-ATPase: Gene Regulation and Cellular Function"* 1993-1995, \$309,000.

USDA/NRICGP (Plant Pathology) *"Polygalacturonase Inhibitor Proteins: Their Role in Plant Defense Against Pathogens"* 1993-1995, \$100,000 (Co-PI: J. Labavitch).

Binational Agricultural Research and Development Fund (BARD) US-2334-93 *"Recognition and Disposal of Misfolded Seed Proteins"* 1994-1997, \$90,000 (Israel collaborator: G. Gallili).

Binational Agricultural Research and Development Fund (BARD) US-2451-94 *"Genetic and Biochemical Characterization of Fructose Accumulation: A Strategy to Enhance Fruit Quality"* 1995-1998, \$130,000 (Israel collaborator: A. Schaffer).

USDA/NRICGP 97-35304-4627 (Plant Growth & Development) *"Regulation of Cell Wall Polymer Substrate Accessibility in Ripening Fruit"* 1997-1999, \$120,000.

Rockefeller Foundation *"Evaluation of Public Sector Intellectual Property Resources in Agricultural Biotechnology"* 2001, \$58,160 (Co-PIs: B. Wright, D. Zilberman, K. Bradford)

Rockefeller Foundation *"Development of a Collaborative Database for Public Sector Intellectual Property Resources in Agricultural Biotechnology "* 2002, \$319,403 (Co-PIs: D. Zilberman, K. Bradford, B. Renk, J. Severson)

McKnight Foundation *"Development of a Collaborative Database for Public Sector Intellectual Property Resources in Agricultural Biotechnology "* 2002, \$50,000 (Co-PIs: D. Zilberman, K. Bradford, B. Renk, J. Severson)

II. AGRICULTURAL INDUSTRY SOURCES

California Fresh Market Tomato Board, "*Postharvest Physiology Studies*" 1984-1985, \$39,000 (Co-PIs: M. Saltveit, L. Morris).

California Fresh Market Tomato Board, "*Postharvest Physiology Studies*" 1984-1985, \$22,650 (Co-PI: M. Saltveit).

California Tomato Board, "*Genetic Control of Cell Wall Hydrolases Associated with Soft Rot Susceptibility*" 1991-1992, \$39,480 (Co-PI: R. Fischer).

California Tomato Board, "*Genetic Control of Cell Wall Hydrolases Associated with Soft Rot Susceptibility*" 1991-1992, \$22,000 (Co-PI: R. Fischer).

III. PRIVATE SOURCES

Shell Foundation, "*Mechanisms of Solute Transport Through Lipid Bilayers*" 1983, \$19,000.

Hunt-Wesson, "*Molecular Genetic Approaches to Tomato Quality Improvement*" 1986-1992, \$10,000 - \$40,000 per year.

Campbell Institute for Research and Technology, "*Molecular Genetic Approaches to Tomato Quality Improvement*" 1986-1991, \$20,000 per year.

Ragu Foods Inc, "*Molecular Genetic Approaches to Tomato Quality Improvement*", 1986-1991, \$10,000 per year.

EniMont Americas, "*Molecular Basis of Protein Targeting to Endomembrane Compartments*" 1988-1990, \$70,000.

Freshworld/DuPont/DNAP, "*Role of Endo- β -1,4-glucanases in Fruit Softening*" 1990, \$20,000.

Unilever Inc, "*Role of Endo- β -1,4-glucanases in Fruit Softening*" 1993-1996, \$195,000.

Zeneca Plant Sciences, "*Molecular Basis of Melon Fruit Softening*" 1992-1995, \$340,000

Unilever Inc, "*Role of Endo- β -1,4-glucanases in Fruit Softening*" 1995, \$45,000.

UC-BIOSTAR and Seminis Vegetable Seeds, "*Metabolic Engineering of Fructose Accumulation*" 1997-1998, \$137,000.

UC-BIOSTAR and DNA Plant Technology, "*Regulation of Expansin Gene Expression and Xyloglucan Disassembly to Control Postharvest Quality of Fruit*" 1997-1999, \$145,000.

IV. MULTI-INVESTIGATOR AND TRAINING GRANTS

U.C. Biotechnology Research and Education Program "*Molecular Basis of Protein Targeting in Plant Cells*" 1987-1990, \$300,000 (A. Bennett P.I., with 4 other faculty).

USDA National Needs Graduate Fellowships, "*Molecular Biology of the Plant Cell Program*" 1987-1995, \$336,000 (A. Bennett P.I., with 8 other faculty).

NSF Research Training Program, "*Plant Cell Biology Training Program*" 1991-1996, \$1,500,000 (M. Etzler P.I., with 11 other faculty).

NSF Science & Technology Center, "*Center for Engineering Plants Resistant Against Pathogens*" (CEPRAP), 1991-1996, \$5,000,000 (G. Bruening P.I., with 19 other faculty).

PUBLICATIONS

1. Bennett A.B. 1982. Characterization, solubilization, and reconstitution of an electrogenic, anion-sensitive H^+ -ATPase from corn roots. Ph.D. thesis, Cornell University.
2. DuPont F.M., Bennett A.B., Spanswick R.M. 1982. Proton transport in microsomal vesicles from corn roots. In: *Plasmalemma and Tonoplast: Their Functions in the Plant Cell*. Eds. D. Marme, R. Hertel, pp. 409-416. Elsevier Biomedical Press, Amsterdam.
3. DuPont F.M., Bennett A.B., Spanswick R.M. 1982. Localization of a proton-translocating ATPase on sucrose gradients. *Plant Physiol.* 70:1115-1119.
4. Williams S.E., Bennett A.B. 1982. Venus' flytrap closure: An acid growth response. *Science* 218:1120-1122.
- *5. Bennett A.B., Spanswick R.M. 1983. Optical measurements of ΔpH and $\Delta \psi$ in corn root membrane vesicles. Kinetic analysis of Cl^- effects on a proton-translocating ATPase. *J. Membrane Biol.* 71:95-107.
6. Bennett A.B., Spanswick R.M. 1983. Solubilization and reconstitution of an anion-sensitive H^+ -ATPase from corn roots. *J. Membrane Biol.* 75:21-31.
7. Bennett A.B., Spanswick R.M. 1983. Derepression of amino acid/ H^+ cotransport in developing soybean embryos. *Plant Physiol* 72:781-786.
8. O'Neill S.D., Bennett A.B., Spanswick R.M. 1983. Characterization of a NO_3^- -sensitive H^+ -ATPase from corn roots. *Plant Physiol.* 72:837-846.
9. Spanswick R.W., Bennett A.B. 1983. Electrogenic ion transport in higher plants. P. 331-344. In: M.P. Blaustein and M. Lieberman (eds.). *Electrogenic Transport: Fundamental Principles and Physiological Implications*. Raven Press, New York.
- *10. Bennett A.B., O'Neill S.D., Spanswick R.M. 1984. H^+ -ATPase activity from storage tissue of *Beta vulgaris*. I. Identification and characterization of an anion-sensitive H^+ -ATPase. *Plant Physiol* 74:538-544.
11. Bennett A.B., Spanswick R.M. 1984. H^+ -ATPase activity from storage tissue of *Beta vulgaris*. II. H^+ /ATP stoichiometry of an anion-sensitive H^+ -ATPase. *Plant Physiol.* 74:545-548.
12. Bennett A.B., Sweger B.L., Spanswick R.W. 1984. Sink to source translocation in soybeans. *Plant Physiol.* 74:434-436.
13. Hsu F.C., Bennett A.B., Spanswick R.M. 1984. Concentrations of sucrose and nitrogenous compounds in the free space of developing soybean seedcoats and embryos. *Plant Physiol.* 75:181-186.
14. Spanswick R.M., O'Neill S.D., Bennett A.B. 1984. Plasma membrane and tonoplast ATPases: Characteristics, H^+ transport, and reconstitution. P. 519-524. In: W.J. Cram, K. Janacek, R. Rybova and K. Sigler (eds.). *Membrane Transport in Plants*, Czechoslovak Academy of Sciences, Prague.
15. Bennett A.B., Spanswick R.M. 1985. The use of optical probes to monitor the formation of pH gradients and membrane potential in tonoplast membrane vesicles. P. 119-128. In: B.P. Marin (eds.). *Biochemistry and Function of Vacuolar ATPase in Fungi and Plants*. Springer-Verlag, Berlin.

16. Bennett A.B. 1985. Anion-sensitive H⁺-ATPase from higher plant cells: The role of chloride in stimulating proton transport. P. 175-183. In: B.P. Marin (ed.). Biochemistry and Function of Vacuolar ATPase in Fungi and Plants. Spring-Verlag, Berlin.
17. Bennett A.B., O'Neill S.D., Eilmann M.E., Spanswick R.M. 1985. H⁺-ATPase activity from storage tissue of *Beta vulgaris*. III. Modulation of plasma membrane and tonoplast ATPase activity by reaction substrates and products. Plant Physiol. 78:495-499.
18. Pesacreta T., Bennett A.B., Lucas W.J. 1985. Spectrophotometric and cytochemical analysis of phosphate ester hydrolysis activity in *Beta vulgaris* L. J. Histochem. Cytochem. 34:327-338.
19. DellaPenna D., Christoffersen R.E., Bennett AB 1985. Biotinylated proteins as molecular weight markers on western blots. Anal. Biochem. 152:329-332.
20. Bennett A.B., Damon S., Osteryoung K., Hewitt J. 1986. Mechanism of retrieval and metabolism following phloem unloading. In: J. Cronshaw, W. Lucas, R. Giaquinta, Alan R. Liss, Inc. Eds. Phloem Transport pp. 307-316.
21. Bennett A.B., Christoffersen R.E. 1986. Synthesis and processing of cellulase from ripening avocado fruit. Plant Physiol. 81:830-835.
- *22. DellaPenna D., Alexander D., Bennett A.B. 1986. Molecular cloning of tomato fruit polygalacturonase: Analysis of mRNA levels during ripening. Proc Nat Acad Sci USA 83:6420-6424.
23. Bennett AB 1986. Biotechnology sets sights on improving tomato fruit quality. Am Veg Grower, August, pp. 18-20.
- *24. Bennett AB, Smith GM, Nichols B. 1987. Regulation of climacteric respiration in ripening avocado fruit. Plant Physiol. 83:973-976.
25. Oleski N.A., Bennett A.B. 1987. H⁺-ATPase activity from storage tissue of *Beta vulgaris*. IV. DCCD binding and inhibition of the plasma membrane H⁺-ATPase. Plant Physiol. 83:569-572.
26. Bennett A.B., Oleski N.A., O'Neill S.D. 1987. Primary hydrogen ion pumps of the pumps of the vacuolar and plasma membrane plasma membranes of higher plants. In: M. McNamee, S. Goheen. (eds.) Bio Rad Press, pp 353-363.
27. Bennett A.B., DellaPenna D. 1987. Regulation of polygalacturonase gene expression during ripening. In: D. Nevins, R. Jones, (eds.) Tomato Biotechnology, Alan R. Liss, pp 299-308.
28. Bennett A.B., DellaPenna D. 1987. Polygalacturonase: Its importance and regulation in fruit ripening. In: WW Thomson, EA Nothnagel, RH Huffaker, eds., Senescence: Its Biochemistry and Physiology, Amer Soc Plant Physiol. pp 98-107.
29. Hewitt J.D., Blaker N.S., Damon S.E., Bennett A.B. 1987. The UCD processing tomato breeding program. Acta Horticulture 200:83-90.
30. Oleski N.A., Mahdavi P., Peiser G., Bennett A.B. 1987. Transport properties of the tomato fruit tonoplast. I. Identification and characterization of an anion-sensitive H⁺-ATPase. Plant Physiol. 84:993-996.
31. Oleski N.A., Mahdavi P., Bennett A.B. 1987. Transport properties of the tomato fruit tonoplast. II. Citrate transport. Plant Physiol. 84:993-996.

32. DellaPenna D., Bennett A.B. 1987. Polygalacturonase gene expression in Rutgers, *rin*, *nor* and *Nr* tomato fruits. *Plant Physiol.* 84:502-507.
33. DellaPenna D., Bennett A.B. 1988. *In vitro* synthesis and processing of tomato fruit polygalacturonase. *Plant Physiol* 86:1057-1063.
34. Robinson N.L., Hewitt J.D., Bennett A.B. 1988. Sink metabolism in tomato fruit. I. Development changes in carbohydrate metabolizing enzymes. *Plant Physiol.* 87:727-730.
35. Damon S., Hewitt J.D., Bennett A.B. 1988. Sink metabolism in tomato fruit. II. Phloem unloading and sugar uptake. *Plant Physiol.* 87:731-736.
36. Yelle S., Hewitt J.D., Robinson N.L., Damon S., Bennett A.B. 1988. Sink metabolism in tomato fruit. III. Analysis of carbohydrate assimilation in a wild species. *Plant Physiol.* 87:737-740.
37. Joyce D.C., Reid M.S., Bennett A.B. 1988. Transport properties of the tomato fruit tonoplast. III. Temperature dependence of calcium transport. *Plant Physiol.* 88:1097-1103.
38. Bennett A.B., Leigh R., Spanswick R.M. 1988. H⁺-ATPases from vacuolar membranes of higher plants. *Methods Enzymol.* 157:579-590.
- *39. Giovannoni J., DellaPenna D., Bennett A.B., Fischer R.L. 1989. Expression of a chimeric polygalacturonase gene in transgenic *rin* (ripening inhibitor) tomato fruit results in polyuronide degradation but not fruit softening. *Plant Cell* 1:53-63.
40. DellaPenna D., Lincoln J., Fischer R.L., Bennett A.B. 1989. Transcriptional analysis of polygalacturonase and other ripening induced genes in Rutgers, *rin*, *nor* and *Nr* tomato fruit. *Plant Physiol* 90:1372-1377.
41. Bennett A.B., DellaPenna D., Fischer R.L., Giovannoni J., Lincoln J.E. 1989. Regulation, maturation and function of tomato fruit polygalacturonase. In: *Signals for Cell Separation in Plants*, D. Osborne, M. Jackson (eds), Springer-Verlag, pp. 11-20.
42. Bennett A.B., DellaPenna D., Fischer R.L., Giovannoni J., Lincoln J.E. 1989. Tomato fruit polygalacturonase: Gene regulation and enzyme function. In: *Biotechnology and Food Quality*, Shaindow Kung, D.D. Bills, R. Quatrano (eds), Butterworths, pp.167-180.
43. Bennett A.B., Ewing N., Wimmers L.E., Meyer D. 1989. Molecular analysis of cation-sensitive ion-translocating ATPases in tomato. In: *J. Dainty, M.I. DeMichelis, E. Marre, F. Rasi-Caldogno (eds), Plant Membrane Transport: The Current Position*, Elsevier, pp.449-454.
44. Giovannoni J.J., DellaPenna D., Lashbrook C., Bennett A.B., Fischer R.L. 1989. Expression of a chimeric polygalacturonase gene in transgenic *rin* (ripening inhibitor) tomato fruit. In: *C. Lamb, R. Beachy (eds), UCLA Symposium on Molecular and Cellular Biology*, Vol. 129, Alan R. Liss.
45. Bennett A.B., Borcherts K. 1990. A functional arginine residue in the vacuolar H⁺-ATPase of higher plants. *Biochim. Biophys. Acta* 1023:119-123.
46. Bennett A.B., O'Neill S.D. (eds) 1990. *Horticultural Biotechnology*, Wiley-Liss, New York, 387 pp.
47. Bennett A.B. 1990. Summary: Ripening and Senescence. In: *A.B. Bennett, S.D. O'Neill (eds), Horticultural Biotechnology*, Wiley-Liss, pp. 213-215.

48. Giovannoni J.J., DellaPenna D., Lashbrook C., Bennett A.B., Fischer R.L. 1990. Expression of a chimeric polygalacturonase gene in transgenic *rin* (ripening inhibitor) tomato fruit. In: A.B. Bennett, S.D. O'Neill (eds), Horticultural Biotechnology, Wiley-Liss, pp. 217-228.
49. Wimmers L.E., Ewing N.N., Meyer D.J., Bennett A.B. 1990. Molecular biology of plant P-type ion-translocating ATPases. In: R. Leonard, P. Hepler (eds), Calcium in Plants, Amer. Soc. Plant Physiol. pp. 36-45.
50. Bennett A.B., Osteryoung K.W. 1990. Protein transport and targeting within the endomembrane system of plants. In: D. Grierson (ed.), Plant Biotechnology, Vol. 1 Plant Genetic Engineering. Blackie and Sons Limited pp. 200-239.
51. Reuveni M., Bennett A.B., Bressan R.A., Hasegawa P.M. 1990. Enhanced H⁺ transport capacity and ATP hydrolysis activity of the tonoplast H⁺-ATPase after NaCl adaptation. Plant Physiol. 94:524-530.
52. Ewing N.N., Wimmers L.E., Meyer D.J., Chetelat R.T., Bennett A.B. 1990. Molecular cloning of tomato plasma membrane H⁺-ATPase. Plant Physiology 94:1874-1881.
53. DellaPenna D., Lashbrook C., Toenjes K., Giovannoni J.J., Fischer R.L., Bennett A.B. 1990. Polygalacturonase isozymes and pectin depolymerization in transgenic *rin* tomato fruit. Plant Physiol. 94:1882-1886.
54. Osteryoung K.W., Toenjes K., Hall B., Winkler V., Bennett A.B. 1990. Analysis of tomato polygalacturonase expression in transgenic tobacco. Plant Cell 2:1239-1248.
55. Yelle S., Chetelat R.T., DeVerna J.W., Dorais M., Bennett A.B. 1991. Sink metabolism in tomato fruit. IV. Genetic and biochemical analysis of sucrose accumulation. Plant Physiol. 95:1026-1035.
- *56. Fischer R.L., Bennett A.B. 1991. Role of cell wall hydrolases in fruit ripening. Annu. Rev. Plant Physiol. & Plant Molec. Biol. 42:675-703.
57. Giovannoni J.J., DellaPenna D., Bennett A.B., Fischer R.L. 1991. Polygalacturonase and tomato fruit ripening. Hort. Rev. 13:67-103.
58. Bennett A.B., Klann E.M., Lashbrook C.C., Yelle S., Chetelat R.T., DeVerna J.W., Fischer R.L. 1992. Genetic and molecular genetic regulation of soluble and insoluble carbohydrate composition in tomato. In: Biotechnology and Nutrition, S-d Kung, D.D. Bills, (eds), Butterworths, pp 149-165.
59. Dong J.G., Kim W.T., Yip W.K., Thompson G.A., Li L., Bennett A.B., Yang S.F. 1991. Cloning of a cDNA encoding 1-aminocyclopropane-1-carboxylate synthase and expression of its mRNA in ripening apple fruit. Planta 185:38-45.
60. Osteryoung K.W., Sticher L., Jones R., Bennett A.B. 1992. Barley aleurone microsomal membranes: A system for analysis of cotranslational processing of plant endomembrane proteins. Plant Physiol. 99:378-382.
61. Klann E., Yelle S., Bennett A.B. 1992. Tomato fruit acid invertase cDNA: Nucleotide and deduced amino acid sequences. Plant Physiol. 99:351-353.
62. Wimmers L., Ewing N., Bennett A.B. 1992. Higher plant Ca²⁺-ATPase: Primary structure and regulation of mRNA abundance by salt. Proc. Natl. Acad. Sci. USA 89:9205-9209.

63. Lashbrook C.C., Bennett A.B. 1993. Functional analysis of Cx-cellulase (endo- β -1,4-glucanase) gene expression in transgenic tomato fruit. In: Cellular and Molecular Aspects of the Plant Hormone Ethylene, JC Pech, A Latche, C. Balague (eds), Kluwer Acad. Pub., pp123-128.
64. Stotz H., Powell A., Damon S., Greve C., Bennett A.B., Labavitch J. 1993 Molecular characterization of a polygalacturonase inhibitor from 'Bartlett' pear fruit. *Plant Physiol* 102:133-138.
65. Chetelat R., Yelle S., DeVerna J., Klann, E., Bennett A.B. 1993. Inheritance and genetic mapping of fruit sucrose accumulation in *Lycopersicon chmielewskii*. *Plant J.* 4:643-650.
66. Klann E., Chetelat R., Bennett A.B. 1993. Expression of acid invertase gene controls sugar composition in tomato fruit. *Plant Physiol* 103:863-870.
67. Bennett A.B., Chetelat R., Klann E., Lashbrook C., Martin R., Gilchrist D. 1993. Physiologically-directed molecular and biochemical approaches to plant improvement. *Trans. Malaysian Soc. Plant Physiol.* 3:200-209.
68. Stotz H.U., Contos J.A., Powell A.L.T., Bennett A.B., Labavitch J.M. 1994. Structure and expression of an inhibitor of fungal polygalacturonases from tomato. *Plant Mol. Biol* 25:607-617.
69. Brummell D.A., Lashbrook C.L., Bennett A.B. 1994. Plant endo-1,4- β -glucanases: Structure, properties and physiological function. In: M.E. Himmel, J.O. Baker, R. P. Overend (eds), Amer. Chem. Soc. Symposium Series, Enzymatic Conversion of Biomass for Fuels Production. ch. 6, pp:100-129.
70. Ewing N.E., Bennett A.B. 1994. Assessment of the number and expression of H⁺-ATPase genes in tomato. *Plant Physiol.* 106:547-557.
71. Lashbrook C.L., Gonzalez-Bosch C., Bennett A.B. 1994. Two divergent endo- β -1,4-glucanase genes exhibit overlapping expression in ripening fruit and abscission zones. *Plant Cell* 6:1485-1493.
72. Powell A.L.T., Stotz H.U., Labavitch J.M., Bennett A.B. 1994. Glycoprotein inhibitors of fungal polygalacturonases. In: "Advances in Molecular Genetics of Plant-Microbe Interactions", M.J. Daniels, J.A. Downie, A.E. Osborn (eds), Vol. III. pp. 399-402.
73. Moore T., Bennett A.B. 1994. Tomato fruit polygalacturonase isozyme 1: Characterization of the β subunit and its state of assembly *in vivo*. *Plant Physiol* 106:1461-1469.
74. Karrer E., Lincoln J.E., Hogenout S., Bennett A.B., Bostock R., Martineau B., Lucas W.J., Gilchrist D.G., Alexander D. 1995. *In situ* isolation of mRNA from individual plant cells: Creation of cell-specific cDNA libraries. *Proc. Natl. Acad. Sci. USA* 92:3814-3818.
75. Grantz A.A., Brummell D.A., Bennett A.B. 1995. Ascorbate free radical reductase mRNA levels are induced by wounding. *Plant Physiol.* 108:411-418.
76. Chetelat R.T., DeVerna J.W., Bennett A.B. 1995. Introgression into tomato (*Lycopersicon esculentum*) of the *L. chmielewskii* invertase gene controlling fruit sucrose accumulation. *Theoret. Appl. Genet.* 91:327-333.
77. Chetelat R.T., DeVerna J.W., Bennett A.B. 1995. Effects of the *Lycopersicon chmielewskii* invertase gene controlling fruit sucrose accumulation on yield and quality parameters following introgression into tomato. *Theoret. Appl. Genet.* 91:334-339.

78. Mito N., Bennett A.B. 1995. The *diageotropica* mutation and synthetic auxins differentially effect expression of auxin-regulated genes in tomato. *Plant Physiol.* 109:293-297.
- *79. Bennett A.B., Chetelat R.T., Klann E. 1995. Exotic germplasm or engineered genes: Comparison of genetic strategies to improve fruit quality. In: K-H Engel, G. Takeoka, R. Teranishi (eds), *Amer. Chem. Soc. Symposium Series, Genetically Modified Foods; Safety Aspects* 605:88-99.
80. Hadfield K.A., Rose J.K.C., Bennett A.B. 1995. The respiratory climacteric is present in Charentais (*Cucumis melo* var. *Reticulatis* F1 Alpha) melons ripened on or off the plant. *J. Exp. Bot.* 46:1923-1925.
81. Rose J.K.C., Brummell D.A., Bennett A.B. 1996. Two divergent xyloglucan endotransglycosylases exhibit mutually exclusive patterns of expression and differing xyloglucan substrate affinities in nasturtium. *Plant Physiol.* 110:493-499.
82. Klann E., Bennett A.B. 1996. Soluble acid invertase controls sugar composition, sugar concentration and cell size in transgenic tomato fruit. *Plant Physiol* 112:1321-1330
83. Hentzen A.E., Smart L.B., Wimmers L.E., Fang H.H., Schroeder J.I., Bennett A.B. 1996. Two plasma membrane H⁺-ATPase genes expressed in guard cells of *Vicia faba* are also expressed throughout the plant. *Plant & Cell Physiol* 37:650-659.
84. Ferrol N., Bennett A.B. 1996. A single gene may encode differentially localized Ca²⁺-ATPases in plant cells. *Plant Cell* 8:1159-1169.
85. Mito N., Wimmers L.E., Bennett A.B. 1996. Sugar regulates mRNA abundance of H⁺-ATPase gene family members in tomato. *Plant Physiol* 112:1229-1236.
86. Gonzalez-Bosch C., Brummell D., Bennett A.B. 1996. Differential expression of two endo-β-1,4-glucanase genes in pericarp and locules of wild-type and mutant tomato fruit. *Plant Physiol.* 111:1313-1319.
87. del Campillo E., Bennett A.B. 1996. Pedicel breakstrength and cellulase gene expression during tomato flower abscission. *Plant Physiol* 111: 813-820.
88. Lashbrook C.C., Brummell D.A., Rose J.K.C., Bennett A.B. 1997. Non-pectolytic cell wall metabolism during fruit ripening. In: J. Giovannoni (ed), "Fruit Ripening Molecular Biology", Gordon and Breach Publishing (in press).
89. Brummell D.A., Bird C.R., Schuch W., Bennett A.B. 1997. A pistil-predominant endo-β-1,4-glucanase is generally expressed in rapidly expanding tissues. *Plant Molec. Biol.* 33:87-95.
90. Kanayama Y., Dai N., Granot D., Petreikov M., Schaffer A., Bennett A.B. 1997. Divergent fructokinase genes are differentially expressed in tomato. *Plant Physiol.* 113:1379-1384.
91. Gonzalez-Bosch C., del Campillo E., Bennett A.B. 1997. Immunodetection and characterization of tomato endo-β-1,4-glucanase Cell protein in flower abscission zones. *Plant Physiol.* 114:1541-1546.
92. Rose JKC, Catala C., Brummell DA, Lashbrook CC, Gonzalez-Bosch C, Bennett AB. 1997. The tomato endo-1,4-β-glucanase gene family: Regulation by both ethylene and auxin. In: *Biology and Biotechnology of the Plant Hormone Ethylene*, A. Kanellis, C. Chang, H. Kende, D. Grierson, eds. pp. 197-205.

93. Brummell D.A., Catala C., Lashbrook C.C., Bennett A.B. 1997. A membrane-anchored E-type endo- β -1,4-glucanase is localized on Golgi and plasma membranes of higher plants. *Proc. Natl. Acad. Sci.* 94:4794-4799.
- *94. Rose J.K.C., Lee H. H., Bennett A.B. 1997. Expression of a divergent expansin gene is fruit-specific and ripening-regulated. *Proc. Natl. Acad. Sci.* 94:5955-5960.
95. Catala C., Rose J.K.C., Bennett A.B. 1997. Auxin-regulation and spatial localization of an endo-1,4- β -D-glucanase and a xyloglucan endotransglycosylase in expanding tomato hypocotyls. *Plant J* 12:417-426 (cover article).
96. Hadfield K.A., Bennett A.B. 1997. Programmed senescence of plant organs. *Cell Death and Diff.* 4:662-670.
97. Lashbrook C.C., Giovannoni J.J., Hall B.D., Fischer R.L., Bennett A.B. 1998. Transgenic analysis of tomato endo- β -1,4-glucanase gene function. Role of *Cell* in floral abscission. *Plant J* 13:303-310.
98. Sitrit Y., Bennett A.B. 1998. Regulation of tomato fruit polygalacturonase mRNA accumulation by ethylene: A re-examination. *Plant Physiol* 116:1145-1150.
99. Rose J.K.C., Hadfield K.A., Labavitch J., Bennett A.B. 1998. Temporal sequence of cell wall disassembly in ripening melon fruit. *Plant Physiol* 117:345-361(cover article).
100. Hadfield K.A., Bennett A.B. 1998. Polygalacturonases: Many genes in search of a function. *Plant Physiol.* 117:337-343.
101. Hadfield K.A., Rose J.A., Bennett A.B. 1998. Polygalacturonase (PG) gene expression in ripe melon fruit supports a role for PG in ripening-associated pectin disassembly. *Plant Physiol* 117:363-373.
102. Kanayama Y., Dai N., Granot D., Petreikov M., Schaffer A., Powell A.L., Bennett A.B. 1998. Tomato fructokinases exhibit differential spatial expression and differential inhibition by fructose. *Plant Physiol* 117:85-90.
103. Downie B., Dirk L.M.A., Hadfield K.A., Wilkins T.A., Bennett A.B., Bradford K.J. 1998. A gel diffusion assay for quantification of pectin methylesterase activity. *Anal. Biochem.* 264:149-157.
104. Catala C, Bennett, A.B. 1998. Cloning and sequence analysis of Tomcel8; A new plant endo- β -1,4-glucanase gene encoding a protein with a putative carbohydrate binding domain. *Plant Physiol:* 118:1535.
105. Navarro J.P., Hentzen A., Bennett A.B. 1999. Alternative transcription initiation sites generate two LCA1 Ca²⁺-ATPase mRNA transcripts in tomato roots. *Plant Mol. Biol.* 40:133-140.
- *106. Rose J.C., Bennett A.B. 1999. Cooperative disassembly of the cellulose-xyloglucan network of plant cell walls: Parallels between cell expansion and fruit ripening. *Trends in Plant Sci.* 4:176-183.
107. Brummell D., Hall B.D., Bennett A.B. 1999. Antisense suppression of tomato endo- β -1,4-glucanase Cel2 mRNA accumulation increases the force required to break fruit abscission zones but does not effect fruit softening. *Plant Mol. Biol* 40:615-622.
108. Sitrit Y., Hadfield K.A., Bennett A.B., Bradford K.J., Downie B.A. 1999. Expression of a calcium-dependent exo-polygalacturonase associated with tomato seed germination. *Plant Physiol.* 121:419-428.

- *109. Brummell D.A., Harpster M.H., Civello P.M., Bennett A.B., Dunsmuir, P. 1999. Modification of expansin protein abundance in tomato fruit alters softening and cell wall polymer metabolism during ripening. *Plant Cell* 11:2203-2216.
110. Civello P.M., Powell A., Bennett A.B. 1999. An expansin gene expressed in ripening strawberry. *Plant Physiol.* 121:1273-1279.
111. Hadfield, K.A., Dang T., Guis, M., Pech J-C., Bouzayen M., Bennett A.B. 2000. Characterization of ripening-regulated cDNAs and expression in ethylene-suppressed Charentais melon fruit. *Plant Physiol.* 122: 977-984.
112. Catala C., Rose J.K.C., Bennett A.B. 2000. Auxin-regulated genes encoding cell wall modifying proteins are expressed during early tomato fruit growth. *Plant Physiol.* 122: 527-534.
113. Rose J.K.C., Cosgrove D.J., Albersheim P., Darvill A.G., Bennett A.B. 2000. Detection of expansin proteins and activity during fruit ontogeny. *Plant Physiol.* 123:1583-1592.
114. Smart L.B., Nall N.M., Bennett A.B. 2000. Isolation of RNA and protein from guard cells of *Nicotiana glauca*. *Plant Molec. Biol. Reporter* 42:857-869.
115. Smart L.B., Cameron K.D., Bennett A.B. 2000. Isolation of genes displaying predominant expression in guard cells and epidermal cells of *Nicotiana glauca*. *Plant Molec. Biol.* 42:857-869.
116. Powell A.L.T., van Kan J., ten Have A., Visser J., Greve C., Bennett A.B., Labavitch J. 2000. Transgenic expression of active fruit PGIP in tomato limits fungal colonizations. *Molec. Plant Microbe Interact.* 13:942-950.
117. Smart L.B., Moskal W.A., Cameron K.D., Bennett A.B. 2001. MIP genes are down-regulated under drought stress in *Nicotiana glauca*. *Plant Cell Physiol* 42:686-693.
118. Powell A.L., Bennett A.B. 2001. Tomato. In: *Fruit and Vegetable Biotechnology*, V. Valpuesta (ed), Woodhead Publishing Ltd., Cambridge, England pp. 185-207.
119. Catala C., Rose J.K.C., York W.S., Darvill A.G., Bennett A.B. 2001. Characterization of a tomato XET gene that is down-regulated by auxin in etiolated hypocotyls. *Plant Physiol* 127:1180-1192.
- *120. Bennett A.B. 2002. Biochemical and genetic determinants of cell wall disassembly in ripening fruit: A general model. *HortSci.* 37:447-450.
121. Odanaka S., Bennett A.B., Kanayama, Y. 2002. Distinct physiological roles of fructokinase isozymes revealed by gene-specific suppression of *Frk1* and *Frk2* expression in tomato. *Plant Physiol* 129:1119-1126.

*most significant

PATENTS

1. Bennett A.B., Fischer R.L., Lashbrook C., Giovannoni J. 1990. Endo-1,4- β -glucanase gene and its use in plants. U.S. Patent #5,554,743.
2. Bennett A.B., Yelle S. 1990. Sucrose accumulating tomato cultivar. U.S. Patents #5,434,344 & #6,072,106.
3. Bennett A.B., Klann E.M. 1991. Tomato acid invertase gene. U.S. Patent #5,658,773.
4. Bennett A.B., Powell, A., Stotz, H., Labavitch, J. 1994. Polygalacturonase inhibitor protein gene and its use in plants. U.S. Patent #5,569,830
5. Bennett A.B., Brummell, D., Grantz, A. 1995. Ascorbate free radical reductase gene and its use in plants. U.S. Patent #5,750,872.
6. Bennett A.B., Kanayama Y. 1997. Fructokinase genes and their use in metabolic engineering of fruit sweetness. U.S. Patent #6,031,154.
7. Bennett A.B., Rose, J. 1997. Fruit-specific and ripening-regulated expansin genes to control fruit texture and softening. U.S. Patent #5,929,303.

INVITED PRESENTATIONS

1. Bennett A.B. 1982. The role of chloride in the activation of proton transport in corn root membrane vesicles. Seminar, Carnegie Institution, Stanford University, January 1982.
2. Bennett A.B. 1982. An electrogenic, anion-sensitive H⁺-ATPase in corn root membrane vesicles. Seminar, Section of Plant Biology, Cornell University, September 1982.
3. Bennett A.B. 1983. Proton translocating ATPase from the plasma membrane and tonoplast of red beet. Seminar, Biology Department, Yale University, April 1983.
4. Bennett A.B. June 20, 1983. Amino acid uptake by developing soybean embryos. Seminar, Light and Growth Laboratory, USDA-ARS, Beltsville, June 1985.
5. Bennett A.B. 1985. Hydrogen ion translocating ATPase in the tonoplast and plasma membrane of plant cells. Invited presentation; University of British Columbia, Canada, March 1985.
6. Bennett A.B. 1985. Methods and problems in studies of solute permeability of plant cell membranes. Invited presentation; Shell Development Company, Modesto, CA, April 1985.
7. Bennett A.B. 1985. Metabolism and retrieval mechanisms during phloem unloading. Invited presentation; International Conference on Phloem Transport, Asilomar, CA, August 1985.
8. Bennett A.B. 1985. Proton translocating ATPase from vacuolar and plasma membranes of higher plants. Invited presentation; University of California, Santa Barbara, November 1985.
9. Bennett A.B. 1985. Phloem unloading and polygalacturonase gene expression in tomato fruit. Invited presentation; Campbell Institute for Research and Technology, Davis, CA, December 1985.
10. Bennett A.B. 1986. Sugar transport into tomato pericarp cells. Invited presentation; Campbell/Calgene Workshop on Carbon Transport and Assimilation; Davis, CA, February 1986.

11. Bennett A.B. 1986. Primary hydrogen ion pumps of the vacuolar and plasma membrane of higher plants. Invited presentation; Membrane Protein Symposium, San Diego, CA, August 1986.
12. Bennett A.B. 1986. Regulation of polygalacturonase gene expression during tomato fruit ripening. Invited presentation; Tomato Biotechnology Symposium, University of California, Davis, CA, August 1986.
13. Bennett A.B. 1987. Polygalacturonase: Its importance and regulation in fruit ripening. Invited presentation; 10th Annual Symposium in Plant Physiology, Riverside, CA, January 1987.
14. Bennett A.B. 1987. Protein trafficking to the plant cell surface and vacuole. Invited presentation. EniChem Americas Inc., Princeton, NJ, March 1987.
15. Bennett A.B. 1988. Function and structure of plant transport ATPase. Invited presentation; Plant Cell and Molecular Biology Series, Purdue University, West Lafayette, IN, February 1988.
16. Bennett A.B. 1988. Regulation of expression and secretion of tomato fruit polygalacturonase. Invited presentation; Horticulture Department, Purdue University, West Lafayette, IN, February 1988.
17. Bennett A.B. 1988. Regulation of expression and secretion of tomato fruit polygalacturonase. Invited presentation; Botany/Plant Physiology Series, Rutgers University, April 1988.
18. Bennett A.B. 1988. Fruit Quality. Invited presentation; Seed Industry Conference, Woodland, CA, May 1988.
19. Bennett A.B. 1988. Secretion of cell wall enzymes in ripening fruit. Invited presentation; Gordon Research Conference, Plant Senescence, Colby-Sawyer, NH, July 1988.
20. Bennett A.B. 1988. Polygalacturonase: Gene regulation, protein maturation and enzyme function. Invited presentation; DNA Plant Technology, Cinnaminson, NJ, April 1988.
21. Bennett A.B. 1988. Molecular genetics and vegetable quality: A case study. Invited presentation; PMA/DuPont de Nemours and Company, Wilmington, DE, August 1988.
22. Bennett A.B. 1988. Regulation of expression and secretion of polygalacturonase. Invited presentation; NATO Advanced Research Workshop, Signals for Cell Separation in Plants, Turin, Italy, September 1988.
23. Bennett A.B. 1988. Tomato fruit polygalacturonase: Gene regulation and enzyme function. Invited presentation; University of Maryland/USDA/DuPont Symposium on Biotechnology and Food Quality, College Park, MD, October 1988.
24. Bennett A.B. 1988. Polygalacturonase: Gene regulation, protein maturation and enzyme function. Invited presentation; Section of Plant Biology, Cornell University, Ithaca, NY, October 1988.
25. Bennett A.B. 1988. Tomato fruit development and ripening. University Extension/Hunt Wesson, Tomato Production Short Course, Davis, CA, October 1988.
26. Bennett A.B. 1988. Tomato polygalacturonase: Gene regulation, protein maturation and enzyme function. Invited presentation; Monsanto Corporate Research Center, St. Louis, MO, November 1988.

27. Bennett A.B. 1988. Polygalacturonase gene regulation, protein maturation and enzyme function. Invited presentation; Plant Research Laboratory, Michigan State University, East Lansing, MI, November 1988.
28. Bennett A.B. 1988. Tomato polygalacturonase: Gene regulation, protein maturation and enzyme function. Invited presentation; UCLA, Plant Molecular Biology Series, Los Angeles, CA, November 1988.
29. Bennett A.B. 1988. Tomato polygalacturonase: Gene regulation and enzyme function. Invited presentation; Bay Area Molecular Biology Day, Stanford, CA, December 1988.
30. Bennett A.B. 1989. Contemporary assessments of quality characteristics in tomato. Invited presentation; 33rd Annual Tomato Day, Davis, CA, January 1989.
31. Bennett A.B. 1989. Molecular control of tomato fruit softening. Invited presentation; DNA Plant Technology, Emeryville, CA, March 1989.
32. Bennett A.B. 1989. Expression of polygalacturonase in transgenic tobacco and mutant tomato fruit. Invited presentation; Japanese Society of Plant Physiology, Nagoya, Japan, April 1989.
33. Bennett A.B. 1989. Tomato polygalacturonase: Gene regulation and enzyme function. Invited presentation; Plant Sciences Department, University of Arizona, Tucson, AZ, May 1989.
34. Bennett A.B. 1989. Molecular analysis of E₁/E₂-type ion-translocating ATPases in tomato. Invited presentation; International Workshop on Membrane Transport in Plants, Venice, Italy, June 1989.
35. Bennett A.B. 1989. Applications of biotechnology in postharvest physiology. Guest lecture, Short course: Reduction of Postharvest Losses in Perishable Crops, University of California, Davis, CA, September 1989.
36. Bennett A.B. 1989. Tomato polygalacturonase: Gene expression and role in fruit ripening and pathogen susceptibility. Invited presentation; Genetics Series, University of California, Riverside, CA, October 1989.
37. Bennett A.B. 1990. Structure of higher plant plasma membrane ATPases. Invited presentation; UC Riverside Plant Physiology Symposium on Calcium in Plants, Riverside, CA, January 1990.
38. Bennett A.B. 1990. New agricultural techniques; Potential applications of biotechnology. Invited presentation; National Sweet Potato Council Annual Convention, Monterey, CA, January 1990.
39. Bennett A.B. 1990. Biochemical and genetic determinants of tomato fruit carbohydrate composition. Invited presentation; Campbell's Institute for Research and Technology, Davis, CA, February 1990.
40. Bennett A.B. 1990. Tomato fruit development and quality. Invited presentation; Nestle's Management Workshop, Napa, CA, March 1990.
41. Bennett A.B. 1990. Controlled texture in tomatoes and engineered polygalacturonases. Invited presentation; Western Food Industry Conference, Davis, CA, March 1990.
42. Bennett A.B. 1990. Molecular regulation of cell wall structure in ripening fruit. Invited presentation; UCLA Symposium on Molecular Strategies for Crop Improvement, Keystone, CO, April 1990.
43. Bennett A.B. 1990. Molecular biology of membrane transport in plants. Invited presentation; University of Hawaii, Manoa, HA, May 1990.

44. Bennett A.B. 1990. Molecular regulation of cell wall structure in ripening fruit. Invited presentation; University of Hawaii, Manoa, HA, May 1990.
45. Bennett A.B. 1990. Genetic regulation of carbohydrate metabolism in tomato fruit. Invited presentation; Hawaii Sugar Planters Association, Aiea, HA, May 1990.
46. Bennett A.B. 1990. Molecular regulation of cell wall structure in ripening fruit. Invited presentation; Carnegie Institution, Stanford, CA, May 1990.
47. Bennett A.B. 1990. Genetic and molecular genetic improvement of tomato fruit quality. Invited presentation; Seed Industry Conference, Woodland, CA, June 1990.
48. Bennett A.B. 1990. Applications of biotechnology in postharvest physiology. Guest lecture, Short course: Reduction of Postharvest Losses in Perishable Crops, University of California, Davis, September 1990.
49. Bennett A.B. 1990. Genetic and molecular genetic regulation of soluble and insoluble carbohydrate composition in tomato. Invited presentation; Symposium on Biotechnology and Nutrition, University of Maryland, College Park, MD, September 1990.
50. Bennett A.B. 1990. Molecular genetic regulation of cell wall hydrolases in ripening tomato. Presentation in Vegetable Crops Seminar, University of California, Davis, CA, October 1990.
51. Bennett A.B. 1991. Analysis of cell wall hydrolases in transgenic tomato fruit. Invited presentation; UCLA Symposium on Genetic Dissection of Plant Cell Processes, Keystone, CO, January 1991.
52. Bennett A.B. 1991. Role of cell wall hydrolases in fruit ripening. Invited presentation; Plant Biology Series, University of California, Berkeley, CA, March 1991.
52. Bennett A.B. 1991. Genetic and biochemical analysis of carbohydrate metabolism in tomato fruit. Contributed presentation; Annual Meeting of the American Society of Plant Physiologists, Albuquerque, NM, July 1991.
53. Bennett A.B. 1991. Applications of biotechnology in postharvest physiology. Guest lecture, Short course: Reduction of Postharvest Losses in Perishable Crops, University of California, Davis, September 1991.
54. Bennett A.B. 1991. Session organizer & chair, Primary Active Transport Proteins, 12th Annual Long Ashton Symposium, "Transport & Receptor Proteins of Plant Membranes", Bristol, UK, September 1991.
55. Bennett A.B. 1991. Session organizer & chair, Solute and Ion Transport, Third International Congress of Plant Molecular Biology, Tucson, AZ, October 1991.
56. Bennett A.B. 1991. Role of cell wall hydrolases in fruit ripening. Invited presentation; Third International Congress of Plant Molecular Biology, Tucson, AZ, October 1991.
57. Bennett A.B. 1991. Determinants of tomato fruit processing quality. Invited presentation; Hunt/Wesson Inc., Fullerton, CA, October 1991.
58. Bennett A.B. 1991. Food and agricultural biotechnology. Invited presentation; California Institute for Food and Agricultural Research (CIFAR) Industry Advisory Board meeting, Davis, CA, October 1991.

59. Bennett A.B. 1991. Cell wall hydrolase genes. Presentation in Postharvest Biology Seminar (PLS291), University of California, Davis, CA, December 1991.
60. Bennett A.B. 1991. Genetic and biochemical determinants of tomato fruit quality. Invited presentation; Monsanto Corporation, St. Louis, MO, December, 1991.
61. Bennett A.B. 1992. Genetic approach to enhancing tomato soluble solids. Invited presentation; 36th Annual Tomato Day, Davis, CA, January, 1992.
62. Bennett A.B. 1992. Genetic and biochemical determinants of tomato fruit quality. Invited presentation; University of Florida, Gainesville, FL, February 1992.
63. Bennett A.B. 1992. Genetic and biochemical determinants of tomato fruit quality. Invited presentation; Nagoya University, Nagoya, Japan, April 1992.
64. Bennett A.B. 1992. Molecular biology of tomato fruit development and of primary ion pumps in plants. Invited presentation; Sumitomo Chemical Company, Takarazuka Research Center, Osaka, Japan, April 1992.
65. Bennett A.B. 1992. Chair, Panel Discussion on "Biotechnology and Tomato Fruit Quality". Tomato Quality Workshop, Sarasota, FL, April 1992.
66. Bennett A.B. 1992. Genetic and biochemical determinants of tomato fruit quality. Invited presentation; USDA Western Regional Research Center, Albany, CA, April, 1992.
67. Bennett A.B. 1992. Sink metabolism in tomato fruit. Invited presentation; VCR 291, Department of Vegetable Crops, UC Davis, May 1992.
68. Bennett A.B. 1992. Genetic and biochemical basis of sucrose accumulation in tomato. Invited presentation; Molecular Biology of Tomato: Fundamental Advances and Crop Improvement, Davis, CA August 1992.
69. Bennett A.B. 1992. Molecular and biochemical approaches to crop improvement. Invited keynote address, Asia-Pacific Conference on Plant Physiology, Kuala Lumpur, Malaysia November, 1992.
70. Bennett A.B. 1993. Structure and function of Cx-cellulase gene family in tomato. Invited presentation: Keystone Symposium, The Extracellular Matrix of Plants: Molecular, Cellular & Developmental Biology, Santa Fe, NM January, 1993.
71. Bennett A.B. 1993. Genetic enhancement of crops by traditional and modern methods. Invited presentation: "The New Agriculture; A Special Series of Workshops for Bay Area Food and Farm Professionals", Berkeley, CA February, 1993
72. Bennett A.B. 1993. Comparison of classical and molecular genetic modification of tomato: The case of a high sugar tomato. Invited presentation: "Agricultural Biotechnology Day at the U.S. National Arboretum", Washington, D.C. April, 1993.
73. Bennett A.B. 1993. Integrating classical and molecular genetic approaches to tomato improvement. Invited presentation: University of Malaya, Kuala Lumpur, Malaysia June, 1993.
74. Bennett A.B. 1993. Breeding plants for food: Old and new methods. Invited presentation. "The New Agriculture, Workshop IV, Biotechnology & Food Production". Davis, CA September, 1993.

75. Bennett A.B. 1993. Carbohydrate metabolism in wild and domesticated tomato fruit. Invited presentation. DNA Plant Technology Corporation, Emeryville, CA December, 1993.
76. Bennett A.B. 1994. Strategies to improve tomato fruit quality. Invited presentation; Monsanto Company, St. Louis, MO March, 1994.
77. Bennett A.B. 1994. Molecular basis of sucrose accumulation in tomato fruit. Institute of Field Crops, Volcani Center, ARO, Bet Degan, Israel April 1994.
78. Bennett A.B. 1994. Developmental regulation of cell wall disassembly. Department of Plant Genetics, Weizmann Institute of Science, Rehovot, Israel April 1994.
79. Bennett A.B. 1994. Developmental regulation of cell wall disassembly. Department of Biochemistry, University of Valencia, Valencia, Spain April 1994.
80. Bennett A.B. 1994. Molecular biology of fruit ripening. Session organizer and chair, Postharvest Physiology Gordon Research Conference, Plymouth, NH July 1994.
81. Bennett A.B. 1994. Genetic manipulation of postharvest pathogen resistance. Invited presentation, Postharvest Physiology Gordon Research Conference, Plymouth, NH July 1994.
82. Bennett A.B. 1994. Molecular genetic analysis of the structure and function of ion-translocating ATPases. Invited presentation, Symposium on the Genetics and Molecular Biology of Plant Mineral Nutrition, Davis, CA July, 1994.
83. Bennett A.B. 1994. Exotic germplasm or engineered genes: Comparison of genetic strategies to improve tomato fruit quality. Invited presentation, Symposium on "Safety aspects of Flavors and Foods Produced by Genetically Modified Plants and Organisms", American Chemical Society Washington D.C. August, 1994.
84. Bennett A.B. 1995. Genetic regulation of carbohydrate composition in fruit. Invited presentation, Department of Plant Sciences, University of Arizona, Tucson, AZ April, 1995.
85. Bennett A.B. 1995. Genetic and biochemical determinants of fruit quality. Invited presentation, USDA, Plant Gene Expression Center, Albany, CA May, 1995.
86. Bennett A.B. 1995. Applications of biotechnology to crop improvement. Invited presentation, Korean-American Scientists and Engineers Association, San Francisco, CA September, 1995.
87. Bennett A.B. 1995. Session Chair, Genetic Manipulation of Ripening, Tomato Breeders' Roundtable, Davis, CA September, 1995.
88. Bennett A.B. 1995. Cell wall disassembly and pathogen susceptibility in ripening fruit. Invited presentation, Tomato Breeders' Roundtable, Davis, CA September, 1995.
89. Bennett A.B. 1995. Genetic modulation of pathogen responses and pathogen resistance in fruit. Invited presentation, Sumitomo Chemical Company, Osaka, Japan November, 1995.
89. Bennett A.B. 1995. Physiological roles of cell wall disassembly in plants. Invited presentation, Okhayama University, Okhayama, Japan November, 1995.
89. Bennett A.B. 1995. Genetic modulation of pathogen responses and pathogen resistance in fruit. Invited presentation, Kagoshima Symposium "Applications of Molecular Biology to Agriculture in the Year 2000", Kagoshima, Japan November, 1995.

90. Bennett A.B. 1996. Exotic germplasm or engineered genes: A case study of genetic improvement of tomato. Invited presentation, California Plant and Soil Conference, Modesto, CA January, 1996.
91. Bennett A.B. 1996. Agricultural Biotechnology: An overview. Invited presentation, International Life Sciences Institute, Washington D.C. June, 1996.
92. Bennett A.B. 1996. Programmed Cell Death. Session organizer and chair, Plant Senescence and Programmed Cell Death Gordon Research Conference, Plymouth, NH July 1996.
93. Bennett A.B. 1996. Cell wall hydrolase gene families in ripening and senescence. Invited presentation, Plant Senescence and Programmed Cell Death Gordon Research Conference, Plymouth, NH July 1996.
94. Bennett A.B. 1996. Access to enabling biotechnology for minor crops in California. Invited presentation, National Research Council/Board on Agriculture Forum on Intellectual Property Rights and Plant Biotechnology, Washington D.C. November 1996.
95. Bennett A.B. 1996. Metabolic engineering for improved fruit quality. Invited presentation, UC Davis Biotechnology Training Program Seminar, Davis, CA November 1996.
96. Bennett A.B. 1997. Novel approaches for improving tomato sweetness. Invited presentation, 41st Annual Tomato Day, Davis, CA January 1997.
97. Bennett A.B. 1997. Agricultural biotechnology and access to enabling technologies for variety improvement. California Strawberry Commission, Watsonville, CA March 1997.
98. Bennett A.B. 1997. Session Chair: Evolution of short and long-distance communication networks. Symposium on Information Processing in Plants, Davis, CA March, 1997.
99. Bennett A.B. 1997. Functional analysis of cell wall hydrolase gene families in higher plants. Invited presentation, Novo-Nordisk, Davis, CA April 1997.
100. Bennett A.B. 1997. Agricultural biotechnology: A perspective from the USA. Invited presentation, Ecole Nationale Supérieure Agronomique de Toulouse, Toulouse, France June, 1997.
101. Bennett A.B. 1997. Cell wall disassembly in ripening tomato and melon fruit. Invited presentation, Ecole Nationale Supérieure Agronomique de Toulouse, Toulouse, France June, 1997.
102. Bennett A.B. 1997. Functional analysis of a family of genes encoding endo- β -1,4-glucanases in tomato. Invited presentation, Institut Nationale de la Recherche Agronomique (INRA), Versailles, France, July 1997.
103. Bennett A.B. 1997. Metabolic engineering of fruit quality. Invited presentation, 1st International Conference on Food Ingredients: New Technologies, Cuneo, Italy September, 1997.
104. Bennett A.B. 1997. Genetic engineering for industry. Invited presentation, Australian Postharvest Horticulture Conference, Sydney, Australia September, 1997.
105. Bennett A.B. 1997. Metabolic engineering of fruit quality. Invited presentation, Australian Postharvest Horticulture Conference, Sydney, Australia September, 1997.
106. Bennett A.B. 1997. Engineering sugar composition of tomato fruit. Invited presentation, Seminis Vegetable Seeds, Woodland, CA December, 1997.

107. Bennett A.B. 1998. The Next Green revolution: Application of biotechnology in agriculture. Invited presentation, California State University Sacramento, February 1998.
108. Bennett A.B. 1998. Modified enzymes in transgenic foods. Invited presentation, California Institute for Food and Agricultural Research (CIFAR), Davis, CA November, 1998.
109. Bennett A.B. 1999. Exotic germplasm or engineered genes: Strategies to improve food quality. Invited presentation, AAAS Annual Meeting, Anaheim, CA January, 1999.
110. Bennett A.B. 1999. Agricultural genomics' impact on nutritional quality of food. Invited presentation, M&M Mars Food and Nutrition Council, Stamford, UK March, 1999.
111. Bennett A.B. 1999. The next green revolution: Application of biotechnology in agriculture. Invited presentation, California Seed Association, Maui, HI March, 1999.
112. Bennett A.B. 1999. The next green revolution: Application of biotechnology in agriculture. Invited presentation, Keithley Williams Seed Company annual meeting, Holtville, CA April, 1999.
114. Bennett A.B. 1999. The next green revolution: Application of biotechnology in agriculture. Invited presentation, U.S. Army University for Industry, Davis, CA May, 1999.
115. Bennett A.B. 1999. Engineering fruit for enhanced quality. Invited presentation, Society for *In Vitro* Biology, New Orleans, LA June, 1999.
116. Bennett A.B. 1999. Current trends in variety release policies at public research institutions. Invited presentation, American Seed Trade Association, Palm Springs, CA June, 1999.
117. Bennett A.B. 1999. Biotechnology: Are we moving too fast. Invited presentation, United Fresh Fruit and Vegetable Association Industry Leadership Program, Davis, CA July, 1999.
118. Bennett A.B. 1999. The next green revolution: Application of biotechnology in agriculture. Invited presentation, Foreign Service Nationals Orientation Program, Davis, CA September, 1999.
119. Bennett A.B. 1999. Exotic germplasm or engineered genes: A case study of genetic improvement of tomato. Invited presentation, Tomato Horizons: A Mars/UCD MDRU Symposium, Davis, CA October, 1999.
120. Bennett A.B. 1999. Genetic basis of cell wall disassembly in ripening fruit. Invited presentation, Biochemistry Graduate Program, Washington State University, Pullman, WA October, 1999.
121. Bennett A.B. 1999. The next green revolution: Application of biotechnology in agriculture. Invited presentation, Yolo/Solano Farm Bureau Roundtable, Davis, CA December, 1999.
122. Bennett A.B. 2000. Genetically modified foods. Invited presentation, Refrigerated Foods Association, San Francisco, CA March, 2000.
123. Bennett A.B. 2000. Biochemical and genetic determinants of cell wall disassembly in ripening fruit. Invited presentation, Postharvest 2000; 4th International Conference on Postharvest Science, Jerusalem, Israel March 2000.
124. Bennett A.B. 2000. Genetically modified organisms and your food supply. Invited presentation, Chaine des Rotisseurs, Davis, CA April 2000.

125. Bennett A.B. 2000. Intellectual property: Fueling the fire or smothering the flame. Invited presentation, "Biotechnology and the Public Interests: Prospects of Biotechnology in the Developing and Developed World", Berkeley, CA April 2000.
126. Bennett A.B. 2000. Agricultural biotechnology: The next green revolution. Invited presentation, Hoam Symposium 2000, Seoul, Korea May 2000.
127. Bennett A.B. 2000. Remodeling the Architecture of Plant Cell Walls. Invited presentation, Hoam Symposium 2000, Seoul, Korea May 2000.
128. Bennett A.B. 2000. Biochemical and genetic determinants of cell wall disassembly in ripening fruit. Invited presentation, American Society of Horticultural Science Colloquium; Orlando, FL July 2000.
129. Bennett A.B. 2000. Role of biotechnology in improving postharvest performance. Seed Biotechnology Center Short Course presentation, Davis, CA August 2000.
130. Bennett A.B. 2000. Intellectual property in agricultural biotechnology. Seed Biotechnology Center Short Course presentation, Davis, CA August 2000.
131. Bennett A.B. 2000. Intellectual property management in the University of California. Invited presentation, California Council on Science and Technology, Sacramento, CA October 2000.
132. Bennett A.B. 2000. The next green revolution: Application of biotechnology in agriculture. Invited presentation, UCD Biology Club, Davis, CA November 2000.
133. Bennett A.B. 2001. Intellectual property in agricultural biotechnology: Public resources and strategies. Invited presentation, Workshop on Agricultural Biotechnology IP Clearinghouses, Berkeley, CA, February 2001.
134. Bennett A.B. 2001. Intellectual property in agricultural biotechnology: Fueling the fire or smothering the flame. Invited presentation, Workshop on Minor Crops, Odyssey 2001 – Statewide DANR Conference, Riverside, CA, February 2001.
135. Bennett A.B. 2001. Technology Transfer – A university perspective. Invited presentation, Monsanto Co., Davis, CA, March 2001.
136. Bennett A.B. 2001. Intellectual property and the public sector: Opportunities for agricultural biotechnology. Invited presentation, UC San Diego/CONNECT Ag Bio Partnering and Inventor's Showcase, San Diego, CA, October 2001.
137. Bennett A.B. 2001. Crop biotechnology: Genes, germplasm and intellectual property rights. Invited presentation, Zhejiang University, Zhejiang, China, November 2001.
138. Bennett A.B. 2001. Intellectual property and the public sector: Opportunities for agricultural biotechnology. Invited presentation, Rockefeller Foundation Workshop on Biotechnology Access for Minor and Subsistence Crops, New York, NY, November 2001.
139. Bennett A.B. 2002. Modification of ripening and postharvest quality. Invited presentation, Workshop on Biotechnology for Horticultural Crops: Challenges and Opportunities. Monterrey, CA, March 2002.
140. Bennett A.B. 2002. Technology transfer: From University laboratories to commercial products. Invited presentation, Pohang University of Science and Technology, Pohang, Korea, April 2002.

141. Bennett A.B. 2002. Technology transfer: From University laboratories to commercial products. Invited presentation, Aju University, Suwon, Korea, April 2002.
142. Bennett A.B. 2002. Intellectual property and the public sector: Opportunities for agricultural biotechnology. Invited presentation, University-Industry Consortum, Portland, OR, May 2002.
143. Bennett A.B. 2002. Intellectual property management in a distributed multi-campus environment. Invited presentation, Technology Transfer and Wealth Creation Conference, Association of Pacific Rim Universities, University of Southern California, Los Angeles, CA, May 2002.
144. Bennett, A.B. 2002. Public sector intellectual property management for agricultural research and development. Invited presentation, International Consortium n Agricultural Biotechnology Research 6th International Conference, Ravello, Italy, July 2002.
145. Bennett, A.B. 2002. Commercializing Intellectual Property: California Perspective – Why and How. Invited presentation, AURIL, Imperial College, London, September 2002.
146. Bennett, A.B. 2002. Intellectual Property and the Public Research Enterprise. Invited presentation, Graduate Program in Neurosciences Responsible Conduct of Research Series, UC Davis, Davis, CA, October 2002.
147. Bennett, A.B. 2002. Impact of intellectual property and technology transfer in a large distributed environment. Invited presentation, Industrial Technology Research Institute, Hsinchu, Taiwan, October 2002.
148. Bennett, A.B. 2002. Building a knowledge-based economy: Role of a networked public sector. Invited presentation, Taiwan International Technology Fair, Taipei, Taiwan, October 2002.
149. Bennett, A.B. 2002. Expansin proteins: Targets for value added processed vegetables. Invited presentation, California Institute of Food and Agricultural Research, Davis, CA, October 2002.