Barbara A. Zilinskas

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Email: zilinskas@aesop.rutgers.edu
- Education: B.A. in Biology, State College at Framingham, Massachusetts, 1969 M.S. in Botany, University of Illinois, Urbana, IL, 1970 Ph.D. in Biology, University of Illinois, Urbana, IL, 1975

Professional Experience:

Part-time Laboratory Technician, Department of Environmental Sciences, University of Massachusetts, 1968-1969 NASA Graduate Fellow, University of Illinois, 1969-1972 Research and Teaching Assistant, University of Illinois, 1972-1974 Smithsonian Institution Postdoctoral Fellow, Radiation Biology Laboratory, January - August, 1975 Assistant Professor, Department of Biochemistry and Microbiology, Cook College, Rutgers University, 1975-1980 Graduate Faculty, Full Member, 1976-present Adjunct Professor, Southern Illinois University, Carbondale, IL 1980-1981 Associate Professor, Department of Biochemistry and Microbiology, Cook College, Rutgers University, 1980-1987 Visiting Scholar, Harvard Biological Laboratories, Harvard University, 1982-1983 Professor, Department of Biochemistry and Microbiology, Cook College, Rutgers University, 1987-1993 Professor, Department of Plant Science, Cook College, Rutgers University, 1993-2001 Professor, Department of Plant Biology and Pathology, Cook College, Rutgers University, 2001-present

Fellowships and Awards:

National Aeronautics and Space Administration Fellowship, 1969-1972 Robert Emerson Memorial Grant for Excellence in Teaching, 1974 Smithsonian Institution Postdoctoral Fellowship, 1975 First Cook College Annual Award for Sustained Academic Professional Excellence, 1990 NJAES Research Award for Active and Original Research, 1994 Warren Sussman Award for Excellence in Teaching, 1995
USDA National Award for Excellence in College and University Teaching in the Food and Agricultural Sciences, 1996
Rutgers Award for Programmatic Excellence in Undergraduate Education, 1997
Cook College Leadership Award for Excellence in Teaching and Advising, 1999
Alpha Zeta Professor of the Year, 2002
Rutgers University's Scholar-Teacher Award, 2003

Honors:

B.A. Magna cum laude
Kappa Delta Pi (National Honor Society in Education)
American Men and Women of Science
Who's Who of American Women
Who's Who in Science and Engineering
Inclusion of my Research Program in the U. S. House of Representatives Appropriations Hearings
Cited in BARD (U.S. - Israel Binational Agricultural Research and Development Fund) Twenty Year External Review for "Outstanding BARD–supported work"
Elected Fellow of the American Association for the Advancement of the Sciences (AAAS), Biological Division

Advisory Boards:

National Research Council Graduate Fellowship Evaluation Panel, 1984-1986
National Science Foundation Metabolic Biology (Cellular Biochemistry) Panel, 1986-1989
National Institutes of Health, Special Study Section, 1987
USDA National Research Initiative Competitive Grants Program, Photosynthesis/Respiration Program Panel, 1992
Environmental Protection Agency, Exploratory Research in Biology Panel, 1994

Professional and Honorary Societies:

American Association for the Advancement of Science American Society of Plant Biologists Kappa Delta Pi, National Honor Society in Education Sigma Xi, Scientific Research Society

External Grants:

American Chemical Society, Petroleum Research Fund Grant, 1977-1980 (\$9,000) (B. Zilinskas, Principal Investigator)

USDA Competitive Grant, 1978-1980 (\$80,000) (Co-Principal Investigator, R. F. Troxler; \$40,000 awarded to B. Zilinskas)

USDA Competitive Grant, 1980-1982 (\$55,000) (B. Zilinskas, Principal Investigator)

- NSF Equipment Grant, 1980 (\$25,600) (R. Niedermann, Principal Investigator; B. Zilinskas and A. St. John, Co-Principal Investigators)
- NSF Equipment Grant, 1981-1982 (\$40,000) (B. Zilinskas, Principal Investigator)
- USDA Competitive Grant, 1982-1984 (\$100,000) (B. Zilinskas, Principal Investigator)
- USDA Competitive Grant, 1985-87 (\$85,000) (B. Zilinskas, Principal Investigator)
- USDA Competitive Grant, 1987-90 (\$160,000) (B. Zilinskas, Principal Investigator)
- USDA Special Grant, 1987-89 (\$73,900) (B. Zilinskas and E. Brennan, Co-Principal Investigators)
- USDA Special Grant, 1989-1992 (\$117,348) (B. Zilinskas and E. Brennan, Co-Principal Investigators)
- NSF Grant, 1989-1994 (\$212,158) (B. Zilinskas, Principal Investigator)

NSF Research Experiences for Undergraduates Grant, 1990-91 (\$32,929) (P. Day and B. Zilinskas, Co-Principal Investigators)

- USDA NRICGP Grant, 1991-1994 (\$170,000) (J. Macmillan and B. Zilinskas, Co-Principal Investigators)
- USDA NRICGP Grant, 1992-1994 (\$120,000) (B. Zilinskas, Principal Investigator)
- Rockefeller Foundation Grant, 1992-1993 (\$10,000) (B. Hillman, B. Zilinskas, P. Day and P. Smouse, Co-Principal Investigators)
- NSF Grant, 1992-1993 (\$6,000) (B. Hillman, B. Zilinskas, P. Day and P. Smouse, Co-Principal Investigators)
- NSF-IRL Grant, 1993-1995 (\$54,948 from NSF; \$54,948 University Match) (B. Zilinskas, Principal Investigator)
- BARD Grant, 1993-1997 (\$263,000) (B. Zilinskas, Principal Investigator; D. Holland, Y. Eshdat, and G. Ben-Hayyim, Co-Principal Investigators)
- EPA Grant, 1993-1998 (\$361,002) (B. Zilinskas, Principal Investigator)
- NJ Department of Education, 1997-1999 (\$24,592 subcontract to Rutgers University from City of Paterson, NJ) (B. Zilinskas, Principal Investigator of subcontract)
- USDA Higher Education Challenge Grant, 1998-2001 (\$75,671 matched by Cook College and Rutgers University) (B. Zilinskas, Principal Investigator; G. Zylstra and H. Pederson, Co-Principal Investigators)
- High-Technology Workforce Excellence Grant, 2000-2003 (\$1,342,750 from the State of New Jersey) (G. Zylstra, Principal Investigator; B. Zilinskas, M. Haggblom, and C. Pray, Co-Prinicipal Investigators)
- NSF Equipment Grant, 2003-2004 (\$40,250) (N. Tumer, Principal Investigator; E. Lam, T. Leustek, G.J. Zylstra, J. Kukor, M. Lawton and B. Zilinskas, Co-Principal Investigators)
- Scotts Co. and Monsanto Co., 2003-2006 (\$450,000) (B. Zilinskas, Principal Investigator; W. Meyer, Co-Principal Investigator)
- Pennington Seed Co., 2004-2011 (\$536,506) (B. Zilinskas, Principal Investigator)
- Dow AgroSciences Co., 2006-2010 (\$408,413) (B. Zilinskas, Principal Investigator)
- U.S. Department of Education Fund for the Improvement of Postsecondary Education, 2006-2010 (\$200,000) (G. Zylstra, Principal Investigator; B. Zilinskas, M. Lawton, C. Pinto Braga and R. Sharp, Co-Principal Investigators)

- N.J. Commission on Higher Education and Department of Labor, Innovation Partnership Institutes, 2007-2008 (\$150,000) (D. Finegold, Principal Investigator; B. Zilinskas, Co-Principal Investigator)
- NSF S-STEM Grant, 2007-2012 (\$599,980) (B. Zilinskas, Principal Investigator; T. Casey, R.G. Duncan, D. Kobayashi, and G. Zylstra, Co-Principal Investigators)
- NSF Science Master's Program, 2010-2013 (\$700,000) (D Silver, Principal Investigator; D. Finegold, H. Aydeeh, A. Gates and B. Zilinskas, Co-Principal Investigators)

Travel Grants:

NATO Advanced Study Institute in Photobiology, Italy, 1972 (NSF) International Photobiology Congress, Italy, 1976 (NRC) International Photosynthesis Congress, England, 1977 (NSF) Twenty-Sixth International Plenary Meeting on Space Research, France, 1986 (COSPAR)

Internal Grants (B.A. Zilinskas, Principal Investigator, unless otherwise noted):

Biomedical Sciences Support Grant, 1975 (\$5,000); 1976 (\$4,700); 1978 (\$5,000); 1979 (\$2,500); 1980 (\$1,500) Research Council Grant, 1977 (\$3,000); 1978 (\$750); 1978 (\$1,000); 1981 (\$1.500); 1982 (\$1,620); 1984 (\$3,000); 1986 (\$3,000); 1988 (\$2,500); 1992 (\$1,500) Busch Grant, 1980 (\$7,000); 1981 (\$7,000); 1982 (\$4,000); 1984 (\$5,000); 1986 (\$5,000) FASP Research Council Grant, 1982 (\$700) Instructional Excellence Grant, 1986 (\$12,000) Center for Interdisciplinary Studies in Turfgrass Science, 1992-1994 (\$154,109) Co-Principal Investigator with P. Day, L. Lee, C-K. Chin and G. Jelenkovic Center for Turfgrass Science, 1996-1997 (\$24,282) Center for Turfgrass Science, 1997-1998 (\$28,925) Center for Turfgrass Science, 1998-1999 (\$73,912) Reinvest in Rutgers University Initiative, 1998-1999 (\$38,622) Center for Turfgrass Science, 1999-2000 (\$87,296) Advisory Committee on Instructional Computing, 2000 (\$38,000) (G. Zylstra, Principal Investigator; B. Zilinskas one of several Co-Principal Investigators) High Technology Workforce Excellence Grant, 2000-2003 (\$216, 650 in Institutional Support) (G. Zylstra, Principal Investigator; B. Zilinskas, M. Haggblom and C. Pray, **Co-Principal Investigators**) Special Allocation to Advance Strategic Initiatives, 2000-2001 (\$41,457) NJAES REG Initiative, Chemiluminescent Imaging in Molecular Biology, 2000-2001 (\$30,000) (W. Cohick, Principal Investigator; B. Zilinskas, one of several Co-Principal Investigators) NJAES REG Initiative, Biotechnology Support Facility, 2001-2002 (\$180,000) (G. Zylstra, Principal Investigator; B. Zilinskas, one of several Co-Principal Investigators) Center for Turfgrass Science, 2001-2002 (\$31,000) Center for Turfgrass Science, 2002-2003 (\$45,582) Reinvest in Rutgers Grant, 2002-2003 (\$25,000) (G. Zylstra, Principal Investigator; W. Cohick and B.A. Zilinskas, Co-Principal Investigators)

Center for Turfgrass Science, 2003-2004 (\$28,000) Center for Turfgrass Science, 2008-2009 (\$20,000)

Courses Taught:

Advanced Studies in Biochemistry 16:115:606, 1975 (50%) General Biology 01:119:101, 1975-85 (30-50%) Plant Physiology Laboratory 11:780:382, 1976 (100%) (3 sections) Photobiology 01:119:412, 1977-87 (50%) Plant Physiology 16:131:501, 1979-89 (40%) Methods in Plant Metabolism 16:131:521, 1980 (50%) Honors Seminar 11:554:196, 1981 (100%) Seminar in Biochemistry 16:115:614, 1985 (100%) Plant Molecular Biology 11:126:413, 1985-2001 (50-100% and Course Coordinator) Methods in Recombinant DNA Technology 11:126:427, 1988-2007 (50-100% and Course Coordinator, two sections/year); 2008-2009 (35% of the course, three sections/year) Research in Biotechnology 11:126: 497, 498, 1988- present (Course Coordinator) Seminar in Biotechnology 11:126:401, 1991-present (100%) (1-3 sections/year) Plant Metabolism 16:765:520, 1993 (30%) Plant Molecular Biology 16:765:513, 1994-2001 (30-50% of lectures and Course Coordinator) Plant Physiology 16:765:502, 1998-2003 (10%) Plant Biochemistry and Metabolism 16:765:520, 1999 (10%) Biotechnology Scholars Seminar I 11:126:121, 2009-present (100%) Biotechnology Scholars Seminar II 11:126:421, 2010-present (100%) Bryne First-Year Seminar, 2012 (100%) Careers in Biotechnology, 2013 (100%)

New Courses Developed:

Photobiology, 01:119:412 Methods in Plant Metabolism 11:131:521 Plant Molecular Biology, 11:780:413 Plant Molecular Biology, 16:765:513 Methods in Recombinant DNA Technology, 11:126:427 Research in Biotechnology, 11:126:497, 498 Seminar in Biotechnology, 11:126:401 Biotechnology Scholars Seminar I, 11:126:121 Biotechnology Scholars Seminar II, 11:126:421 Bryne First-Year Seminar, 11:090:101 Careers in Biotechnology. 11:126:421

Developed New Curriculum and Degree Programs:

B.S. in Biotechnology, approved by the N.J. Department of Higher Education, January, 1989, Undergraduate Program Director, 1989-present M.B.S. in Biotechnology and Genomics, approved by the Rutgers University Board of Governors and NJ Commission on Higher Education, December, 2009, Track Coordinator with Michael Lawton, 2010-present

Advising:

Undergraduate upperclass advisor to biology majors specializing in quantitative biology, 1976-1981;
physiology, 1977-1981; genetics and cellular biology, 1983-1991
Undergraduate advisor to biotechnology majors, 1987-present
Undergraduate freshman advisor, 1978-1982 and 2002-2004
Research advisor to 12 George H. Cook Scholars and three Douglass College Scholars,
1976-present
Research advisor to 32 other Cook College undergraduates, 1976-present
Faculty sponsor to 39 Cooperative Education students, 1985-present
Biotechnology Undergraduate Program Director, 1989-present
Faculty advisor, Designer Genes, Rutgers University Biotechnology Club, 1993-2005
Faculty mentor, High school senior, High Technology High School, Monmouth County, 2007
Graduate major advisor and committee chairperson of 12 Ph.D. students and three M.S. students, 1975-2006
Advisor to an International Atomic Energy Agency research fellow, 1979-1980
Thesis committee member for 57 graduate students, including five students outside
Rutgers University, 1975-present
Research advisor of five postdoctoral fellows and two research associates, 1989-2008
Research mentor of thirteen visiting scientists, 1981-present
Research mentor of three high school students, Monmouth County High Tech High School and
Biotechnology High School, 2008-present

Theses under the Direction of B.A. Zilinskas:

Greenwald, L. S. Allophycocyanin B from Nostoc sp. phycobilisomes. M.S. Thesis, 1979

Kyde, M. M. The cyanobacterial heterocyst: its physiology and biochemistry. M.S. Thesis, 1981

Rusckowski, M. The phycobilisome attachment site on the thylakoid membrane of the cyanophyte, *Nostoc* sp. Ph.D. Thesis, 1981

Hays, E. Isolation and characterization of phycocyanin and allophycocyanin from *Aphanothece halophytica*, a halophilic blue-green alga. Ph.D. Thesis, 1981

Glick, R. E. Structure-function relationships in phycobilisomes and thylakoid membranes in red and blue-green algae. Ph.D. Thesis, 1983

Greenwald, L.S. Synthetic and degradative processes involving the phycobilisomes,

phycobiliproteins and linker polypeptides in *Anacystis nidulans* and *Nostoc* sp. Ph.D. Thesis, 1984

- Kupatt, C. E. Two roles of thylakoid lipids in modifying the activity of herbicides, which inhibit photosystem II. Ph.D. Thesis, 1985
- Philbrick, J. B. Cloning and mutational analysis of *psb* 1, the gene encoding the Photosystem II manganese-stabilizing protein, from the cyanobacterium *Synechocystis* 6803. Ph.D. Thesis, 1988
- Scioli, J.R. Cloning and analysis of a cDNA encoding the chloroplastic copper-zinc superoxide dismutase. Ph.D. Thesis, 1988
- Altomare, D.A. Copper/zinc- and manganese-superoxide dismutases in pea: molecular cloning of cDNAs and regulation of superoxide dismutase gene expression. Ph.D. Thesis, 1992
- Mittler, R. Molecular characterization of pea cytosolic ascorbate peroxidase. Ph.D. Thesis, 1993
- Mackle, M. The role of signal peptides in protein targeting in cyanobacteria. Ph.D. Thesis, 1994
- Kuo, M.-C. Spatial and temporal pattern of ascorbate peroxidase and monodehydroascorbate reductase gene expression in pea. M.S. Thesis, 1996
- Murthy, S. Molecular cloning and analysis of pea cytosolic monodehydroascorbate reductase. Ph.D. Thesis, 1996
- Ajit, S. K. Responses of transgenic plants overexpressing antioxidant enzymes to ozone and pathogens. Ph.D. Thesis, 1999
- Wang, X. Advances in turfgrass transformation. M.S. Thesis, 2001
- Hong, M. Role of 16C monounsaturated fatty acids in *cis*-3-hexenal production and plant response to stress. Co-advisor with Dr. C.-K. Chin. Ph.D. Thesis, 2004
- Zaleski, R. Characterization of yield, antioxidant and stomatal response in wheat grown in opentop chambers under variations in atmospheric ozone, carbon dioxide, and soil moisture. Co-advisor with Dr. K. Cooper. Ph.D. Thesis, 2006

Collaborations (Outside Rutgers University):

Dr. E. Gantt, Smithsonian Radiation Biology Laboratory, 1975-1976
Dr. R. F. Troxler, Biochemistry Department, Boston University School of Medicine, 1977-1980
Dr. R. R. Alfano, Physics Department, City College of New York 1979-1985
Dr. J. Grabowski, Institute of Environmental Engineering, Poznan, Poland, 1981-1982

Dr. L. Bogorad, Department of Cellular and Developmental Biology, Harvard University,

1982-1983

- Dr. K. Csatorday, Biological Research Center, Hungarian Academy of Sciences, Szeged, Hungary, 1985-1986
- Dr. N. Geacintov, Chemistry Department, New York University, 1985-1992
- Dr. J. Breton, Biophysics Department, Centre d'Etudes Nucleaires de Saclay, Gif-sur-Yvette, France, 1985-1991
- Dr. C. Dismukes, Chemistry Department, Princeton University, 1988-1992
- Dr. Ersa Galun, Department of Plant Genetics, The Weizmann Institute of Science, Rehovot, Israel, 1990-1996
- Dr. P. Dunsmuir, DNA Plant Technology, Oakland, CA, 1989-1991
- Dr. B. Diner, DuPont, Wilmington, DE 1990-1993
- Dr. Y. Eshdat, D. Holland and G.Ben-Hayyim, Volcani Institute, Bet Dagan, Israel, 1992-1998
- Dr. L. del Rio, Department of Plant Biochemistry, Estacian Experimental del Zaidin, CSIC, Granada, Spain, 1994-1997
- Dr. E. Pell, Department of Plant Pathology, Pennsylvania State University, 1994-2000
- Dr. F. Booker, A. Heagle and J. Miller, North Carolina State University and USDA-ARS, Raleigh, North Carolina, 1995-2004
- Dr. Kent Burkey, North Carolina State University and USDA-ARS, Raleigh, North Carolina, 1996-present
- Dr. C. Mulchi, University of Maryland, 1996-2006
- Dr. S. Jones-Held, King's College, 1998-2006
- Dr. R. Mittler, Iowa State University, 2001-2005
- Dr. N. Bernstein, The Volcani Center, Bet Dagan, Israel, 2005-2007

Professional Activity (In addition to papers presented at meetings and invited seminar presentations):

Plant Physiology Regional Meeting, 1976, chaired session and assisted in programming of the meeting

American Society of Plant Physiologists Annual Meeting, chaired session on photosynthesis, 1978

- American Society for Photobiology Annual Meeting, chaired session on phycobiliproteins and regulation, 1979
- American Society of Plant Physiologists, Northeastern Regional Group, Executive Committee member, 1981-1984
- American Society for Photobiology Annual Meeting, organized workshop on education in photobiology, 1983, 1984
- Cold Spring Harbor Symposium, Molecular Biology of the Photosynthetic Apparatus, chaired session on light harvesting systems in cyanobacteria, 1984

American Society for Photobiology Finance Committee, 1981-1985;
 Executive Council, 1982-1985; Education Committee, 1982-1985; Chairperson, 1983-1985;
 Nominating Committee, 1984-1985; Constitution and Bylaws Committee, 1985-1986

American Society for Photobiology Annual Meeting, chaired "Works In Progress", 1985 Editorial Board, Photosynthesis Research, 1982-1989

Reviewer for USDA, NSF, NIH, DOE, and several private foundations

Reviewer for numerous scientific journals including: Archives of Microbiology, Biochemistry, Biophysical Journal, Biochimica Biophysica Acta, FEBS Letters, Journal of Bacteriology, Journal of Biological Chemistry, Journal of Cell Biology, Journal of Luminescence, Molecular Microbiology, Molecular Plant-Microbe Interactions, Photosynthesis Research, Photochemistry and Photobiology, Plant Journal, Plant Molecular Biology, Plant Physiology, Plant Science, and Proceedings of the National Academy of Science

Project Leader, NEC-49 Cooperative Regional Project on Molecular and Cellular Genetics for the Improvement of Agricultural Productivity and Quality, 1984-1988

Associate Editor, Warren L. Butler Memorial Issue of Photosynthesis Research, 1985-1986

Consultant, International Biotechnologies Incorporated, 1986-1987

President-Elect, Sigma Xi, Rutgers University Chapter, 1987-1988

President, Sigma Xi, Rutgers University Chapter, 1988-1989

- Site-Visit to Wellesley College, Biology Department Review, 1988
- Site-Visit to Simmons College, Biology Department Review, 1989
- Invited Speaker, USDA Workshop, Agricultural Biotechnology and the Public, 1988
- Contributor, U.S. Congress Office of Technology Assessment, "New Developments in Biotechnology", 1988
- Invited Speaker and Participant, U.S./Soviet Student Roundtable on Agricultural Biotechnology, 1989
- Invited Speaker and Participant, National Leadership Institute for Teachers of Biology, 1990 and 1991
- Invited Speaker, U.S.-Japan Binational Seminar, Honolulu, Hawaii, 1990
- Project Leader, Northeast Regional Technical Committee, Characterization and Mechanisms of Plant Responses to Ozone in the Northeastern U.S., 1991-2002; Chair, 1993-1994
- Session Chair, Third International Symposium on Gaseous Pollutants and Plant Metabolism, Blacksburg, VA, 1992
- Invited Speaker and Session Chair, Third International Symposium on Plant Peroxidases, Elsinore, Denmark, 1993
- Invited Keynote Speaker, Sixth International Conference on Superoxide and Superoxide Dismutase, Kyoto, Japan, 1993
- Visiting Professor (one week), University of Puerto Rico, Rio Piedras, 1994
- Invited Speaker, Biotechnology Conference, Center for Talented Youth, New Brunswick, 1995 Advisory Committee to Paterson Public School District, 1998-1999
- Invited Keynote Symposium Speaker, Sixteenth International Botanical Congress, St. Louis, MO 1999

Coordinator of Talented Youth Conference, Discovering Biotechnology, Rutgers Univ., 1999

- Invited Speaker, Johns Hopkins University Center for Talented Youth, College Colloquium, College of New Jersey, 2000
- Chemical Technology Advisory Committee, Burlington County College, 2000-present
- Project Leader, NE-1013, Mechanisms of Plant Response to Ozone in the Northeastern U.S., 2002-2008
- Monmouth County's Biotechnology High School, Various Committees, 2005-present Site-Visit, State University of New York, Buffalo, Comprehensive Review of Biotechnology
 - Undergraduate and Graduate Programs and Department of Biotechnology, 2007

Project Co-Director, Life Sciences Innovation Partnership Institute, 2007-2008 Search Committee for Executive Director of Bio-1 WIRED Project, 2007 Executive Steering Committee, Life Sciences Innovative Partnership Institute, 2007-2008

Governance Board, Bio-1 Workforce Innovation in Regional Economic Development (WIRED), 2007-2010

Executive Steering Committee, Bio-1 WIRED Project, 2007-2010

Co-Leader, Bio-1's Strategy and Implementation Team, Transform Graduate Education, 2007-10

Member, Bio-1's Strategy and Implementation Team, Excite Young People about the BioSciences, 2007-2010

Advisory Board Member, N.J. Biotechnology Educators Consortium, 2008-2010

Representative, Biology Interest Group, WIRED BioScience Institute, Winston-Salem, NC, 2008 NJ Project Leader, CSREES Multistate Project 1030, Characterization and Mechanisms of Plant

Responses to Ozone in the U.S., 2008-present

Organization and Implementation Committee, NJ Bioscience Forum, 2009-2010

University Committees:

Chairperson, Educational Development Committee, 1976-1977 Chairperson, Plant Physiology Search Committee, 1977 Participant of six additional Search Committees, 1976-1984 Cultural Affairs Committee, 1976-1978 Committee for preparation of the Biology Report for Cook College, 1976-1977 Executive Committee, Plant Physiology Graduate Program, 1977-1980 Ad Hoc Committee for a research facility for promoting plant science research, 1977 George H. Cook Scholar Committee, 1979-1982; Chairperson, 1981-1982 Committee for merger of the Plant Physiology and Botany Graduate Programs, 1979-1980 Designed new research laboratory in Lipman Hall and major participant in plans for new teaching laboratories in the Plant Physiology Building, Cook College General Honors Committee (Cook College), 1980-1982 Curriculum Committee (Biology) of the Graduate School, 1980-1982 Faculty Representative to the Cook College Council, 1980-1981 Admissions Committee, Botany and Plant Physiology Graduate Program, 1980-1981 and 1983-1988 Curriculum Committee, Botany and Plant Physiology Graduate Program, 1981-1982 Marshall, University Commencement, 1982-1996 Instructional Development Survey Committee, 1983-1987 Planning Committee for "Institute for Biotechnology" 1983-1984 Chairperson, Plant Molecular Biology Search Committee, 1984-1985 Industrial - NJAES Plant Science Seminar Committee, 1984-1987 Planning Committee for Biotechnology Curriculum, 1983-1989 Search Committee for Dean/Director of Cook College/NJAES, 1984 Center for Agricultural and Environmental Technology New Building Committee, 1985 Committee on Cellular and Molecular Studies in the Life Sciences, 1985 Committee on Rules of Procedure of the Graduate School, 1985-1988

University Research Council, 1985-1988 Advisory Committee to Graduate School Dean Stimpson on Graduate Studies in Cellular and Molecular Biology, 1986 Fellow of Douglass College, 1986-present Ad Hoc Committee on Cooperative Education Program, 1987-1988 Ad Hoc Committee on Evaluation of Teaching Effectiveness, 1987-1989 Ad Hoc Committee on Sciences at Douglass College, 1987-1989 CAART Committee, Faculty Liaison, 1987-1988 Appointments and Promotions Committee, 1987-1989 Admissions and Scholastic Standing Committee, 1987-1993 Planning Committee on Biotechnology Outreach Program, 1987-1988 Curriculum Coordinator, Biotechnology Curriculum, 1989-present Executive Council of the AAUP, Rutgers University Chapter, 1987-1989 AAUP Bylaws Committee, 1988 Academic Standards Committee, Biochemistry Graduate Program, 1987-1990 Search Committee for a Plant Virologist, 1987-1988 Search Committee for Chair of Horticulture and Crop Science Department, 1988-1992 Search Committees (five) for Faculty in Center for Agricultural Molecular Biology, 1988-1992 Grants Workshop Mentor Program, 1988-1989 Executive Committee, Biotechnology Thrust Area, 1988-1989 Search Committee for Plant Biologist, Newark Campus, 1983-1984 and 1989-1990 Affirmative Action and Equal Opportunities Committee, 1989-present; Chair 1989-90; Vice-Chair 1990-1991 Curriculum Committee, Microbiology Graduate Program, 1989-1994 Curriculum Committee, Biochemistry Graduate Program, 1990-1994 George H. Cook Honors Committee, 1990-1997 Nominations Committee, Plant Biology Graduate Program, 1990-1992 Admissions Committee, Plant Biology Graduate Program, 1990-present Rutgers University Catholic Center Community Council, 1990-1991 President's Inauguration Committee, 1990-1991 University Radiation-Safety Committee, 1991-present; Chair, 1995-2006 Organizing Committee, Symposium on Molecular Biology of Plant-Microbe Interactions, 1990-1993 Douglass College Science Advisory Board, 1991-present Appointments and Promotions Committee, 1990-1992 Search Committee for Dean of Academic and Student Affairs, 1991 Ad Hoc Committee on Biochemistry, 1992 Executive Council of the Graduate School, 1992-1995 Search Committee for Dean of Research, Cook College, and Director of Research, NJAES, 1992-1993 Mabel Smith Douglass Honors Committee, 1992-1994 Strategic Planning Steering Committee, New Brunswick, 1992-1994 Biotechnology Club Faculty Advisor, 1992-2005 Cook College Junior/Senior Colloquium Implementation Committee, 1994-1995 Search Committee for Associate Dean of Research/Associate Director of Research,

NJAES. 1994

Cook College Tuition Differential Committee, 1994-2000; Chair 1999-2000 **Biological Sciences Self Study Committee**, 1994-1995 Research Award Committee, Cook College, 1995 Search Committee for Dean of Douglass College, 1995 Strategic Planning Implementation Committee for the Life Sciences and Agriculture, 1995-1996 Foran Hall Phase II Planning and Implementation Committee, 1995-2001 Search Committee for Food Microbiologist, 1996 Faculty Council, 1997-2000 Plant Science Cluster Council, 1997-2001 Search Committee for Assistant Professor of Host-Pathogen Physiology/Plant Molecular Biology, 1997-1998 Advisory Board for the Douglass Project, 1998-present Search Committee for Assistant Professor of Microbial Physiology, 1998 Selection Committee for the 1998 Rutgers Award for Programmatic Excellence in Undergraduate Education, 1998 Selection Committee for the Warren I. Susman Excellence in Teaching Awards, 1998-2001 Search Committee for Microbiol Ecologist, 1998-1999 Faculty Honorary Degrees Committee, 1998-2001 USDA-CARR Committee, 1999-present Search Committee for Professor of New Use Agriculture, 1999-2000 Search Committee for Food Biology Faculty Position, 1999-2000 Search Committee for Executive Dean of Cook College, 2000-2002 Faculty Representative to the Cook College Council, 2001-2002 Cook College Genomics Initiative Planning Committee, 2001-present Ad Hoc Committee of Cook College Curriculum Review, 2002-present Cook College Faculty Financial Aid Committee, 2002-present (Chair, 2005-2006 & 2009-2010) Advisory Committee for the Department of Plant Biology & Pathology, 2002-present Ad Hoc Plant Biology Teaching Program Improvement Committee, Chair, 2002-present Ad Hoc Plant Biology Graduate Program Recruitment Committee, Chair, 2003-present Search Committee for Vice President of Student Affairs, 2003-2004 Cook College Committee on Affirmative Action, 2004-present Discovery Day, Rutgers University Admissions, 2004-present George H. Cook Scholars Committee, 2004-2006 Admissions Committee of the Plant Biology Graduate Program, Chair, 2005-2006 Search Committee for the Director of the Douglass Project for Women in Science, Math and Engineering, 2005-2006 Cook College Differential Tuition and Special Projects Advisory Committee, 2005-2008 Search Committee for the Director of the Douglass Project for Women in Science, Math and Engineering, 2005-2006 Cook College General Honors Committee, 2006-2009 Curriculum and Educational Policy Committee, 2008-present Ad Hoc Committee to Restructure Cooperative Education Committee, 2009 Curriculum and Educational Policy Committee, 2009-present Ad Hoc Committee on Honors Programs at the SEBS, 2012-2013

Publications:

- Braun, B. Zilinskas and Govindjee 1972 Antibodies against an intermediate on the wateroxidizing side of PS II. FEBS Lett. 25:143-146
- Mohanty, P., B. Zilinskas Braun, Govindjee and J. P. Thornber 1972 Chlorophyll fluorescence characteristics of system I chlorophyll *a* protein complex and system II particles at room and liquid nitrogen temperature. Plant and Cell Physiol. 13:81-91
- Mohanty, P., B. Zilinskas Braun and Govindjee 1973 Light-induced slow changes in chlorophyll <u>a</u> fluorescence in isolated chloroplasts: Effects of magnesium and phenazine methosulfate. Biochim. Biophys. Acta 292:459-472
- Braun, B. Zilinskas and Govindjee 1974 Antisera against a component on the oxygen-evolving side of system II reaction: Antisera prepared against an extract from frozen and thawed chloroplasts. Plant Science Lett. 3:219-227
- Zilinskas, B. and Govindjee 1975 Silicomolybdate and silicotungstate mediated DCMU-insensitive photosystem II reaction: Electron flow, chlorophyll *a* fluorescence and delayed light emission changes. Biochim. Biophys. Acta 387:306-319
- Zilinskas, B. and Govindjee 1976 Stabilization by glutaraldehyde fixation of chloroplast membranes against inhibitors of oxygen evolution. Z. Pflanzenphysiol. 77:302-314
- Gantt, E., C. A. Lipschultz and B. Zilinskas 1976 Further evidence for a phycobilisome model from selective dissociation, fluorescence emission, immunoprecipitation, and electron microscropy. Biochim. Biophys. Acta 430:375-388
- Gantt, E., C. A. Lipschultz and B. Zilinskas 1977 Phycobilisomes in relation to the thylakoid membranes. Brookhaven Symposium in Biology. Chlorophyll-proteins, reaction centers and photosynthetic membranes. 28:347-357
- Rathnam, C. K. M. and B. A. Zilinskas 1977 Reversal of DCMU inhibition of CO₂ fixation in spinach chloroplasts and protoplasts by dicarboxylic acids. Plant Physiol. 60:51-53
- Zilinskas, B. A., B. K. Zimmerman and E. Gantt 1978 Allophycocyanin forms isolated from *Nostoc* sp. phycobilisomes. Photochem. Photobiol. 27:587-595
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U.S. Patent Number 7,057,090 B1 (June 6, 2006) *Agrobacterium*-mediated Transformation of Turfgrass Inventors: Barbara A. Zilinskas, Lynne H. Pitcher and Subha R. Lakkaraju

European Patent Number EP1 100 876 B1 (March 4, 2009) Agrobacterium-mediated Transformation of Turfgrass Inventors: Barbara A. Zilinskas, Lynne H. Pitcher and Subha R. Lakkaraju

U.S. Patent Number 7,525,015, B2 (April 28, 2009) Prevention of Transgene Escape in Genetically Modified Perennials Inventors: Hong Luo, Qian Hu, Kimberly Nelson Vasilchick, John P. Longo, Jr., Albert P. Kausch, Subha Lakkaraju and Barbara A. Zilinskas

Patent Pending:

U.S. Patent Application Number 2005/0235379 A1 Development of Controlled Total Vegetative Growth for Prevention of Transgene Escape from Genetically Modified Plants and for Enhancing Biomass Production Inventors: Melvin J. Oliver, Joel M. Chandlee, Albert P. Kausch, Hong Luo, Subha Lakkaraju and Barbara A. Zilinskas