

NABC

news

Winter 2002 no. 24

**Providing an open forum for
exploring issues in
agricultural biotechnology**



NABC'S PRINCIPAL OBJECTIVES ARE TO:

- provide an open forum for persons with different interests and concerns to come together to speak, to listen, to learn, and to participate in meaningful dialogue and evaluation of the potential impacts of agricultural biotechnology
- define issues and public policy options related to biotechnology in the food, agricultural, biobased industrial product, and environmental areas
- promote increased understanding of the scientific, economic, legislative, and social issues associated with agricultural biotechnology by compiling and disseminating information to interested people
- facilitate active communication among researchers, administrators, policymakers, practitioners, and other concerned people to ensure that all viewpoints contribute to the safe, efficacious, and equitable development of biotechnology for the benefit of society
- sponsor meetings and workshops, and publish and distribute reports that provide a foundation for addressing issues.

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Letter from the Chair . . .

The National Agricultural Biotechnology Council was founded 14 years ago as a not-for-profit organization. Currently, our membership includes thirty-six leading not-for-profit agricultural research and educational institutions in the United States and Canada. We seek to provide all stakeholders an opportunity to speak, to listen, and to learn about issues surrounding agricultural biotechnology. The fourteenth NABC public meeting, *Foods for Health*, will be held in Minneapolis May 19–21, 2002. The conference promises to feature wide-ranging viewpoints and perspectives on this critical topic. A recent report (<http://www.royalsoc.ac.uk>) from the Royal Society, *Genetically Modified Plants for Food Use and Human Health – An Update* noted, “We believe that the public debate about GM food must take into account wider issues than science alone, but we wish to stress the importance of informing debate with sound science.” We could not have said it better, and NABC 14 promises to rise to the challenge.

A December 20, 2001, ruling by the US Supreme Court validated patents on genetically engineered plants. This decision, involving Pioneer HiBred International, Inc., allows Pioneer to enforce its patents on corn seed in international markets. Furthermore, the decision reinforced a 1985 ruling by the US Patent and Trademark Office that ratified the issuance of patents on plants. These decisions followed the 1980 US Supreme Court judgment allowing a genetically engineered microbe to be patented. These rulings have spawned the commercial agricultural biotechnology sector, driving much of the industry consolidation that has occurred over the past 10 years. As with other issues, NABC was there, promoting public dialog and debate at our



**W. Randy Woodson
NABC Chair 2001–2002**

meeting in 1995, for example, on *Discovery, Access, and Ownership of Genes*.

In a recent article in *Science* (295:674–677), our colleagues at the University of California-Davis reported on the state of agricultural biotechnology in China. This report illustrates the significant involvement of that country in agbiotech—the largest use of GM crops outside North America. Cited in the report are significant increases in production resulting from adoption of *Bt* cotton, as well as improvements in farmers' health due to reduced pesticide use. The authors made note of several advantages in China relative to agbiotech, including well trained scientists and large collections of germplasm.

Whether it is the global food supply, public acceptance of agricultural biotechnology, environmental risk, the biobased economy of the future, or foods for health, NABC will continue to provide a forum for meaningful and constructive dialog and debate on the key issues.

W. Randy Woodson
NABC Chair
Purdue University

***Foods for Health* will be the theme of NABC's 14th annual meeting**

NABC's fourteenth annual meeting will be titled *Foods for Health*. Hosted by the University of Minnesota and held in Minneapolis, May 19–21, 2002, it will provide a unique integration of agriculture, food, nutrition, medicine, and health. Agricultural and food scientists, nutritionists, medical experts, and leaders in consumer, ethics, and regulatory issues will gather to set the course for the future.

Presentations and discussions will cover the latest research and the implications of new developments in these overlapping fields. Discussion topics will include:

- improving nutritional composition of food for a healthier population,
- approaches to safety and efficacy in new technologies,
- the potential for using natural constituents of plants to treat disease,
- a new model for supporting foods-for-health research,
- crops to generate disease-fighting factors,
- how new products will fit the government regulatory mold,
- the future of edible vaccines,
- technology choices for growers and consumers, and
- the role of science and technology in the pursuit of a healthy future.

Shiriki Kumanyika and Charles Arntzen will be the keynote speakers. The presentation by Dr. Kumanyika, Professor of Epidemiology at the University of Pennsylvania, will be titled, "Diet-Related Chronic Diseases: Moving from Cause to Prevention." Dr. Arntzen, Director of the Arizona Biomedical Institute,

will talk on "When Agriculture and Medicine Merge: The Hope and the Hurdles."

Much of the meeting will be structured around panel discussions, chaired by invited moderators. Groups of speakers will provide brief presentations on a central theme, followed by discussion sessions, in which the audience will be invited to participate.

Gregory Jaffe (Center for Science in the Public Interest), Jeffrey Burkhardt (Univ. of Florida), and Susan Borra (American Dietetic Association) will address federal regulatory issues, ethical aspects, and consumer concerns related to diet and health.

The historical relationship between science and technology and food, and safety considerations will be addressed by after-dinner speakers Charles Muscoplat and Anne Kapuscinski (both University of Minnesota).

Future contributions of agricultural research to medicine and improvement of human health will be the theme of talks by Irwin Goldman (University of Wisconsin, and Harvard University Arnold Arboretum), Harry Preuss (Georgetown University School of Medicine), and Mich Hein (Epicyte). This session will be moderated by Rick Borchelt (Whitehead Institute).

Michael Fernandez (Pew Initiative on Food and Biotechnology) will moderate a panel on foods for disease prevention, to which Clare Hasler (University of Illinois, Urbana-Champaign) Samuel Lehrer (Tulane University) and John Howard (ProdiGene) will contribute.

Lifestyles, choice, and wellness will be the theme of presentations by Laurie Demeritt (Hartmann Group),

Linda Golodner (National Consumers League), and William Horan (farmer). Jean Kinsey (The Food Retail Industry Center, and University of Minnesota) will serve as moderator.

Presentations over lunch will be made by Mary Clutter, Assistant Director for Biological Sciences at the National Science Foundation ("Supporting Comprehensive 'Foods for Health' Research: a New Model") moderated by Ronald Phillips (University of Minnesota), and by George McGovern, former US Senator, now the US Ambassador at FAO ("Our Healthy Future: The Global Context") moderated by Robert Bergland (University of Minnesota, previously Secretary of Agriculture).

As is NABC's tradition, workshops will allow attendees and speakers to discuss, strategize, and make recommendations for dealing with the challenges and opportunities of foods for health, in terms of:

- Therapeutics and Treatment—applying agriculture to medicine.
- Foods to Prevent Disease—applying agriculture to health.
- Consumer Lifestyles and Choices.

Mark Becker (University of Minnesota) will moderate the subsequent Workshop Summary session.

A conference synthesis will be provided by Jeffrey Kahn (University of Minnesota).

On the afternoon of Tuesday, May 21, a special session focused on Minnesota will highlight innovations in agriculture, food, and medicine. Industry (e.g. Cargill, General Mills, Schwann's) and medical/health (e.g. Mayo Clinic, ViroMed, Algenics) representatives will participate.



Shiriki Kumanyika

Shiriki Kumanyika is Professor of Epidemiology and Associate Dean for Health Promotion and Disease Prevention at the University of Pennsylvania School of Medicine. She received her BA in Psychology from Syracuse University, MS in Social Work from Columbia University, PhD in Human Nutrition from Cornell University, and Master of Public Health from the Johns Hopkins University School of Hygiene and Public Health. Her research interests include the epidemiology and management of obesity with a particular focus on African Americans, women's health, and cultural issues in behavioral interventions. She is currently participating in several studies on obesity prevention and treatment.

Dr. Kumanyika has been involved in numerous advisory, policy, and consensus-development activities within the United States and internationally. She chaired the working group on Public Health Approaches to Obesity Prevention for the Council of the International Obesity Task Force. Other IOTF activities included participation in a WHO workshop on obesity prevention in 1998, a national strategy workshop on obesity in Australia in 1999, and one in Barbados for the Eastern Caribbean region in 2000.



Charles J. Arntzen

Charles Arntzen was appointed to the Florence Ely Nelson Presidential Endowed Chair at Arizona State University in Tempe in 2000. He also serves as the Founding Director of the Arizona Biomedical Institute, and as a member of President Bush's Council of Advisors on Science and Technology.

Dr. Arntzen's primary research interests are in the utilization of plant biotechnology for enhancement of food quality and value, for expression of pharmacologically active products in transgenic plants, and for overcoming health and agricultural constraints in the developing world. He is recognized as a pioneer in the development of "edible vaccines."

He has held faculty positions at the University of Illinois and Michigan State University, and visiting professorships in France, Australia, and China. In 1984 he joined the DuPont Company in Wilmington, DE, as Director of Plant Science and Microbiology, and in 1988 he was appointed Dean and Deputy Chancellor for Agriculture at Texas A&M University. Subsequently he was Director of the University's Plant Biotechnology Program at the Institute of Biosciences and Technology. From 1995 to 2000, he was President and CEO of Boyce Thompson Institute for Plant Research, Inc.



Gregory Jaffe

Gregory Jaffe has a BA in biology from Wesleyan University, and a degree in law from Harvard. For seven years he was a trial attorney for the Environmental and Natural Resources Division of the US Department of Justice, then was a Senior Counsel with the Air Enforcement Division of the Environmental Protection Agency, before joining the Center for Science in the Public Interest as Co-director of the Biotechnology Project.

Early in his career, Mr. Jaffe wrote a law-review article on regulatory issues surrounding biotechnology and genetically modified organisms. At the Department of Justice, he advised the Assistant Attorney General on biotech issues and worked with a federal interagency committee addressing biotechnology policy. At EPA he was awarded a bronze medal for commendable service, a special achievement award, and a gold medal for performance.

He is a strong advocate for federal positions in federal court, and has spoken publicly on behalf of EPA. He serves on the Pew Initiative on Food and Biotechnology's Stakeholders' Forum and on the University of Pennsylvania Bioethics Center's GMO Consumer Values Panel. He has published articles on agricultural biotech in the *Christian Science Monitor* and the Food and Drug Law Institute's *Update* magazine.

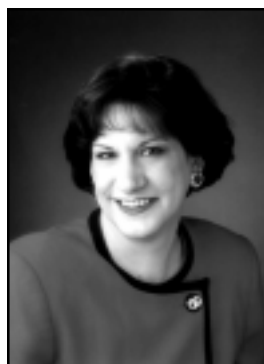


R. Jeffrey Burkhardt

Jeffrey Burkhardt is Professor of Agriculture and Natural-Resource Ethics and Policy in the Food and Resource Economics Department at the University of Florida. He received his doctorate in philosophy with a graduate minor in economics from Florida State University in 1979, and joined the faculty of the University of Florida in 1985. He teaches courses on agriculture and natural-resource ethics, science ethics, and the philosophy of economics, and administers the College of Agricultural and Life Sciences' teaching, research, and extension programs in agriculture and natural-resource ethics.

Dr. Burkhardt is co-author of two books on ethics and agbiotech, *Plants, Power, and Profit* (1991) and *Making Nature, Shaping Culture* (1995). He has published numerous professional and popular articles on ethical issues in the agricultural and natural-resource system, the ethics of food and agricultural biotechnology, ethics in science, and the philosophy of economics.

He has served on several national panels for USDA, NAS, NABC, CAST, and NSF. In January 2000, he was appointed by Secretary Dan Glickman to the US Department of Agriculture's Advisory Committee on Agricultural Biotechnology.



Susan Borra

Susan Borra is Senior Vice President and Director of Nutrition at the International Food Information Council (IFIC) in Washington, DC, a non-profit organization that provides sound, science-based information on nutrition and food safety to health professionals, educators, government officials, journalists, and consumers. At IFIC, she is responsible for directing communications programs, executing public affairs strategies, and managing nutrition and food-safety issues. She oversees the development of consumer-education materials and programs about nutrition, food safety, and health. IFIC and the IFIC Foundation programs are supported by the food and beverage industry.

Ms. Borra currently serves as President of the American Dietetic Association (ADA), and is a past chairman of the ADA Foundation and secretary/treasurer of the ADA Board of Directors. She is active with the American Heart Association and the Society for Nutrition Education, and has served on the Subcommittee on Interpretation and Uses of Dietary Reference Intakes of the National Academy of Sciences.

Prior to joining IFIC, she served as Director of Consumer Affairs at the Food Marketing Institute where she managed nutrition, food safety, and consumer-affairs programs for the retail food industry.



Charles C. Muscoplat

Charles Muscoplat has been Vice President for Agricultural Policy and Dean of the College of Agricultural, Food, and Environmental Sciences at the University of Minnesota since 1999. He serves also as Director of the Agricultural Experiment Station. Prior to his university appointments he was Vice President for Medical Affairs at MGI Pharma, Inc. (formerly Molecular Genetics, Inc.), and he served the company in various executive positions from 1983. He played key roles in the development of the first biotech-based animal health product (monoclonal antibody) in the United States and the first biotech-based plant product (herbicide-tolerant corn).

From 1976 to 1983, Dr. Muscoplat was a member of the faculty of the University of Minnesota in veterinary medicine, and from 1975 to 1976 was a postdoctoral associate at the Sloan Kettering Institute for Cancer Research in New York. He has been appointed to a number of National Academy of Sciences boards and committees focusing on science policy, and has served on the US Department of State's Research Advisory Committee. He is on the Board of Directors of the Minnesota Academy of Science. He holds a PhD in veterinary microbiology from the University of Minnesota.



Anne R. Kapuscinski

Anne Kapuscinski is Professor of Fisheries and of Conservation Biology, the founding Director of the Institute for Social, Economic and Ecological Sustainability (ISEES) and an Extension Specialist in Biotechnology and Aquaculture at the University of Minnesota.

Dr. Kapuscinski is an authority on biosafety policies and science, and ecological effects of genetically engineered organisms. She has served on federal advisory committees on biotechnology under three administrations. In 2001, she received a Pew Marine Conservation Fellowship to support her work with industry, government, and public-interest groups to improve the safety governance of biotechnology. Her research interests include the effects of fisheries and aquaculture on genetic diversity of wild fish populations.

She serves on the US Secretary of Agriculture's Advisory Committee on Agricultural Biotechnology and on a National Academy of Sciences committee on conservation of Atlantic salmon. In 1997, she won the USDA Honor Award for Environmental Protection. Under her guidance, ISEES works with leaders in business, consumer, public-interest, foundation, and academic groups to implement a "safety first" approach to GM organisms for the environment and human health worldwide.



Irwin Goldman

Irwin Goldman is an Associate Professor in the Department of Horticulture, University of Wisconsin. He received a BS in agricultural science from the University of Illinois, an MS in crop science from North Carolina State University, and a PhD in plant breeding and genetics from the University of Wisconsin. His post-doctoral research was on maize genetics at the University of Illinois. He returned to Wisconsin in 1992.

Dr. Goldman's teaching includes courses in plant breeding and genetics, evolutionary biology, and vegetable crops. He is responsible for breeding and genetic research on cross-pollinated veg crops, primarily carrot, onion, and beet. His research involves the interface between horticulture and medicine to develop understanding of the medicinal value of secondary compounds in vegetable plants.



Harry G. Preuss

Harry Preuss is Professor of Physiology, Medicine and Pathology at the Georgetown University School of Medicine. He has authored over 500 medical articles including more than 170 peer-reviewed scientific papers.

Dr. Preuss is on the advisory editorial boards of seven journals. He has edited four books on aging, nephrology, and/or hypertension, and recently authored the best seller *The Prostate Cure*. He is the President of the Certification Board for Nutrition Specialists, is a past-President of the American College of Nutrition and recently became the ninth Master of the College. He has served on three NIH advisory councils: Executive Director's, Aging, and Alternative Medicine, and is a former Established Investigator of the American Heart Association, as well as an Emeritus Member of the American Society for Clinical Investigations. He wrote the section on nutrition in the *Encyclopedia Americana*.

His major interests lie in the field of aging and manifestations of aging such as obesity, hypertension, dyslipidemias, and insulin resistance, and in discerning how these processes are affected by dietary interventions and supplements.

**To register for
Foods for Health:**

**[http://www.coafes.umn.edu/
nabc2002/register.html](http://www.coafes.umn.edu/nabc2002/register.html)**

(details on page 11)



Mich B. Hein

Mich Hein is President and Director of Epicyte Pharmaceutical, Inc., San Diego, and an Adjunct Professor in the Department of Cell Biology at The Scripps Research Institute. Prior to founding Epicyte in 1996, he served on the faculty of the Departments of Molecular Biology and Cell Biology at Scripps.

Dr. Hein received his BS from the Honors Tutorial College at Ohio University and his MS and PhD in plant physiology from the University of Minnesota. He has 20 years of professional experience in plant biology, molecular biology, and immunology, including commercial research and development at Epicyte, Monsanto, and PPG Industries.

His research has focused on mucosal immunology and the use of plant-derived proteins for supplementing the immune system. He is co-inventor, with Dr. Andrew Hiatt, of Epicyte's Plantibodies™ technology, as well as its transport technology, for delivering therapeutic agents to epithelial tissues.



Rick E. Borchelt

Rick Borchelt is Director of Communications and Public Affairs at the Whitehead Institute for Biomedical Research, Cambridge, MA.

Dr. Borchelt received his bachelors degree in biology at Southeast Missouri State University and he did graduate work in entomology and science journalism at the University of Maryland, College Park, after which he was involved in science and technology public affairs as Senior Writer and Associate Editor for campus publications. Subsequently, he was with the National Academy of Sciences as Manager of Media Relations, and the US House of Representatives as Press Secretary to the Committee on Science, Space and Technology. In 1994, he joined the Clinton administration as Special Assistant for Science and Technology Public Affairs and was Press Secretary to the White House Science Advisor, John H. Gibbons.

In 1996 he joined Lockheed Martin as National Media Relations Manager, and in 1998 became a Vanderbilt faculty member detailed to NASA's George C. Marshall Space Flight Center in Huntsville, AL. Most recently, he returned to Washington as Director of Communications for the DOE's Office of Science, where he implemented a strategic communications plan for public outreach on their science portfolio.



Clare M. Hasler

Clare Hasler has a BS in Human Nutrition from Michigan State University (1981), and an MS in nutrition science from the Pennsylvania State University (1984). In 1990, she was awarded a dual PhD in environmental toxicology and human nutrition from Michigan State University. Her postdoctoral work was at the Laboratory of Cellular Carcinogenesis and Tumor Promotion at the National Cancer Institute.

In 1992, Dr. Hasler was hired to develop the Functional Foods for Health (FFH) Program, a joint effort between the Chicago (UIC) and Urbana-Champaign (UIUC) campuses of the University of Illinois. She served as the FFH Program's founding Director until 2000, is now the Associate Director of Outreach and Industry Liaison for the Program, and is pursuing an MBA.

She is Assistant Professor of Nutrition in the Department of Food Science and Human Nutrition at UIUC, is a participant in the Division of Nutritional Sciences and the Environmental Toxicology Program, and is an Adjunct Assistant Professor of Pharmacognosy in the College of Pharmacy at UIC. Her research is focused on the role of soybean in cholesterol-lowering in humans, as well as the cancer-preventive action of prune phytochemicals.

**For more information on
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nabc2002](http://www.coafes.umn.edu/nabc2002)**



Samuel B. Lehrer

Samuel Lehrer is Research Professor of Medicine, Adjunct Associate Professor of Microbiology and Immunology, and Adjunct Professor of Environmental Health Sciences at Tulane University Health Sciences Center, New Orleans.

During Dr. Lehrer's 25 years at Tulane, his research interests have encompassed food and environmental agents that cause allergic reactions. The major focus has been the identification and characterization of shrimp allergens, as well as the immunopathogenesis of shrimp allergy. More recently, other studies have been directed at allergy-risk assessment for genetically modified foods.

He has published over 400 peer-reviewed publications and abstracts (including 64 on seafood allergies) and has given some 65 lectures worldwide. He is a member of twelve national and international societies, including the American Academy of Allergy, Asthma and Immunology, the American Association of Immunologists, the Collegium Internationale Allergologicum, and the Institute of Food Technologists. He serves on the FDA Allergenic Products Advisory Committee and the National Academy of Sciences Standing Committee on Biotechnology, Food and Fiber Production and the Environment.



John A. Howard

John Howard is founder and Chief Scientific Officer of ProdiGene, a biotechnology company in College Station, TX, that is focused on biopharmaceuticals and industrial products from plants. He has over 25 years experience in directing biotechnology groups in research, regulatory, production, intellectual property, and business development for two Fortune 500 companies and one start-up company.

Dr. Howard is author of over fifty publications and patents, is currently an Adjunct Professor at Texas A&M University, and serves on several advisory boards.

Prior to forming ProdiGene, he was Director of the Protein Products Division of Pioneer Hi-Bred International, Inc., where he founded a program to develop and produce recombinant protein products from plants. From 1987 to 1994, he was Director of the Biotechnology Research Department at Pioneer.

He began his career at Stauffer Chemical Company in Richmond, CA (1978-1987), where he initiated and directed a biotechnology research program responsible for crop improvement.

He received his doctoral degree in biochemistry from the University of California at Riverside.



Michael Fernandez

Michael Fernandez is Director of Science for the Pew Initiative on Food and Biotechnology. He oversees the Initiative's research into scientific questions generated by agricultural biotechnology, including the reports, workshops and conferences prepared by Initiative staff.

Previously, Dr. Fernandez served as Associate Administrator for the Agricultural Marketing Service at the USDA where he was responsible for all science and technology programs, including agricultural biotechnology and the implementation of the National Organic Standards Program.

From 1995 to 1999, he served as Special Assistant to the Assistant Administrator at the Environmental Protection Agency's Office of Prevention, Pesticides and Toxic Substances. In this capacity, he addressed issues related to biotechnology, pesticides, and food safety. Before that, he served as Chief Agricultural Science and Technology Advisor to the Senate Committee on Agriculture, Nutrition and Forestry.

He received his undergraduate degree in biology from Princeton University and a doctoral degree in biochemistry and molecular microbiology from the University of Chicago.



Laurie Demeritt

Laurie Demeritt is President and Chief Operating Officer of The Hartman Group, Bellevue, WA, a consulting and market-research firm. The Hartman Group specializes in the analysis and interpretation of consumer lifestyles, and how these lifestyles affect the purchase and use of health and wellness products and services. Their client base includes a number of Fortune 500 consumer packaged goods companies, pharmaceutical firms, and mass and natural food retailers.

As President, Ms. Demeritt is responsible for the quantitative and qualitative market-research and client-services departments, and is the team lead on all consulting projects, including brand-development strategies, retail services, and new product market analysis. She was instrumental in developing unique systems for understanding consumer behaviors and motivations, including ethnographic research methods, social network observations, and interactive studies.

Her background includes a BA from Cornell University and an MBA from the University of Washington.



Linda F. Golodner

Linda Golodner was appointed Executive Director of the National Consumers League (NCL) in 1985, and was elected President and CEO in 1991. NCL is the nation's pioneer consumer organization—since 1899—bringing consumer power to bear on marketplace and workplace issues.

Ms. Golodner chairs the National Council on Patient Information and Education, the Alliance to Protect Electricity Consumers, and the Alliance Against Fraud in Telemarketing and Electronic Commerce, a coalition of more than ninety groups organized to combat fraud through combined efforts and public education. She serves on the boards of the National Patient Safety Foundation, the Union Community Fund, the Rugmark Foundation-USA, and the American National Standards Institute where she chairs the Consumer Interest Council.

She is a founding member of, and co-chairs, the Child Labor Coalition, which is concerned with international and domestic exploitation of children in the workplace, and she has served on the Department of the Treasury Advisory Committee on International Child Labor. She co-chaired the White House Apparel Industry Partnership and serves on the Board of Directors of its successor organization, the Fair Labor Association.



William Horan

William and Pamela Horan farm 3,500 acres in partnership with William's brother Joe in a business known as Horan Brothers Agricultural Enterprises. They produce corn and soybeans.

Mr. Horan currently serves on the National Corn Growers Association Public Policy Team, and the Iowa State University State Extension Council. He also is a Board Member of the United States Grain Council, and is on the Board of Directors of the National Corn Growers Association.

He is past President of the Iowa Corn Growers Association and of the Calhoun County (Iowa) Farm Bureau. He has a BS from South Dakota State University.

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Jean Kinsey

Jean Kinsey is Professor of Applied Economics and Co-director of the Food Retail Industry Center at the University of Minnesota.

Dr. Kinsey was Chair of the Board of Directors of the Federal Reserve Bank of Minneapolis from 1996 to 1997. She is a Fellow and President of the American Agricultural Economics Association (2002), and has previously served on their Executive Board of Directors and Foundation Board. She has been President and Board Member of the American Council on Consumer Interests.

She has conducted research and published articles on a variety of topics including: consumer credit behavior; changing food-consumption patterns; the economics of information and consumers' welfare loss; the marginal propensity to consume food away from home when wives work part-time and full-time; where people purchase their food; retail store performance; and the retail food industry.

Her work has been published in many journals, books, and other publications.

She received her Master's and PhD degrees from the University of California-Davis, and her BA from St. Olaf College, Northfield, MN.



Mary Clutter

Mary Clutter is Assistant Director of the National Science Foundation. She is responsible for the Biological Sciences Directorate that supports fundamental research in biology.

Dr. Clutter is the US Chair of the US-European Commission Task Force on Biotechnology, a member of the Board of Trustees of the International Human Frontiers Science Program, a member of the Board of Regents of the National Library of Medicine, a member of the National Agricultural Research, Extension, Education and Economics Advisory Board, Chair of the Biotechnology Subcommittee of the Committee on Science of the National Science and Technology Council (NSTC), Co-chair of the Subcommittee on Ecological Systems of the Committee on Environment and Natural Resources/NSTC, and Co-chair of the NSTC Committee on Science's Interagency Working Group on Plant Genomes. She is also a member of numerous professional societies and has served on the Board of Directors of the American Association for the Advancement of Science (AAAS). She is a Fellow of the AAAS and of the Association for Women in Science.

She received her BS in biology from Allegheny College and her Master's and PhD degrees from the University of Pittsburgh.



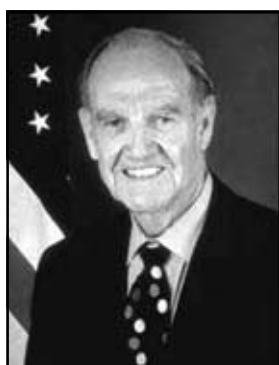
Ronald L. Phillips

Ronald Phillips is Regents' Professor and McKnight Presidential Chair in Genomics, and Director of the Center for Microbial and Plant Genomics, University of Minnesota. He earned BS and MS degrees from Purdue University and a PhD from the University of Minnesota; postdoctoral training was at Cornell University.

Throughout his career, Dr. Phillips has coupled plant genetics with research advances in tissue culture and molecular biology to enhance understanding of the basic biology of cereal crops. His research at the University of Minnesota included one of the earliest programs in modern plant biotechnology related to agriculture.

He is a founding member and former Director of the Plant Molecular Genetics Institute of the University of Minnesota. He has edited six books, and published over fifty chapters, a hundred refereed-journal articles, and two hundred abstracts.

From 1996 to 1998, he was Chief Scientist of the USDA, in charge of the National Research Initiative Competitive Grants Program. In 1991, he was elected a member of the National Academy of Sciences and is currently Chair of the Section on Plant, Soil and Microbial Sciences. From 1999 to 2000 he served as President of the Crop Science Society of America.



George McGovern

George McGovern was a US Senator for South Dakota from 1963 to 1981, and the Democratic candidate for President in 1972.

Mr. McGovern, the son of a Methodist minister, grew up in South Dakota and flew thirty-five combat missions during World War II. After graduating from Dakota Wesleyan University, he earned MA and PhD degrees in American history and government from Northwestern University in Chicago. He taught history and political science at Dakota Wesleyan before beginning his political career.

He was elected to the US Congress in 1956 and re-elected in 1958. President John F Kennedy named him the first Director of the Food for Peace Program. McGovern led the way in expanding nutrition programs during his three terms in the US Senate. In 1998 he was appointed as the US Permanent Representative to the United Nations Food and Agriculture Organization (FAO) in Rome.

In his most recent book, *The Third Freedom: Ending Hunger in Our Time*, published in 2001, Mr. McGovern lays out a workable and affordable program to end world hunger.



Robert Bergland

Robert Bergland is Vice Chair of the University of Minnesota Board of Regents, and lives on the family farm where he was born and raised near Roseau, Minnesota.

A graduate of the University of Minnesota's College of Agricultural, Food and Environmental Sciences, Dr. Bergland served as a member of the US Congress (1970–77) and as Secretary of Agriculture under President Carter (1977–80).

He was President of Farmland World Trade from 1981 to 1983 and General Manager of the National Rural Electric Co-operative Association from 1983 to 1993.



Mark P. Becker

Mark Becker graduated with a BS in Mathematics from Towson State University in 1980, and with a PhD in Statistics from the Pennsylvania State University in 1985. He then joined the University of Florida as Assistant Professor of Statistics. In 1989, he was appointed as Assistant Professor of Biostatistics at the University of Michigan School of Public Health, subsequently was promoted to Professor of Biostatistics, then served as Associate Dean for Academic Affairs.

Dr. Becker is currently Dean of the University of Minnesota School of Public Health. He was elected a Fellow of the American Statistical Association in 1999. He has been Principal Investigator on National Institutes of Health and National Science Foundation statistical methods research grants. In addition, he has been statistical co-investigator on research grants funded by the National Institutes of Health, the Centers for Disease Control, and the Aetna Quality Care Research Fund. His research on statistical methodology has appeared in leading journals of biometrics, medical statistics, sociology, and statistics. He has co-authored publications in journals of accident analysis and prevention, dentistry, epidemiology, health-services research, medicine, nursing, nutrition, and occupational health.



Jeffrey Kahn

Jeffrey Kahn is Director of the Center for Bioethics, and Professor in the University of Minnesota School of Medicine. The Center's focus is on policy, working with policy makers, healthcare professionals, and university communities. He also has faculty appointments in the Division of Health Services Research and Policy and the School of Public Health in the Department of Philosophy.

Prior to joining the Minnesota faculty in 1996, Dr. Kahn was Director of the Graduate Program in Bioethics and Assistant Professor of Bioethics at the Medical College of Wisconsin. From 1994 to 1995, he was Associate Director of the White House Advisory Committee on Human Radiation Experiments, which published *The Human Radiation Experiments* in 1996 (Oxford University Press).

His work explores the intersection of ethics and public health policy, including research ethics, ethics and genetics, and ethical issues in public health. His degrees are in microbiology (BA, UCLA, 1983), health policy (MPH, Johns Hopkins, 1988), and philosophy/bioethics (PhD, Georgetown, 1989). He recently published *Beyond Consent: Seeking Justice in Research* (Oxford University Press), and writes the bi-weekly column "Ethics Matters" on CNN Interactive (CNN.com).

Registration for *Foods for Health*

The early registration fee—before April 2—is \$285. The full fee is \$310. This will cover all conference materials, a copy of the proceedings volume from the 2001 conference (*Genetically Modified Food and the Consumer*) and a copy of the proceedings volume from *Foods for Health*, the Sunday reception and dinner, Monday's continental breakfast, lunch, and reception, and Tuesday's continental breakfast and closing luncheon.

Student Registration Students who register for the conference may be asked to show student identification at check-in. The early registration fee for students is \$195, *i.e.* before April 2. The fee is \$220 on April 2 or later. This fee covers all conference materials, the proceedings volumes for the 2001 and 2002 conferences, the Sunday reception and dinner, Monday's continental breakfast, lunch, and reception, and Tuesday's continental breakfast and closing luncheon.

Spotlight on Minnesota Session Registration This special session will be held Tuesday May 21, immediately following *Foods for Health*, to highlight agricultural, food and medical innovations in Minnesota. The registration fee is additional: \$50 for those registering before April 2 and \$60 thereafter. Student early registration fee for Spotlight on Minnesota is \$25 by April 2 and \$50 thereafter.

Hotel Reservations The registration fee does not include lodging. The conference will be held at the Radisson Hotel Metrodome, located

at the heart of the University of Minnesota-Twin Cities "East Bank" campus at 615 Washington Avenue SE, Minneapolis.

A block of rooms at the Metrodome will be held until April 27, 2002. Reservations may be made at 1-800-822-6577 or 612-379-8888. Indicate that you are attending the NABC *Foods for Health* conference to receive the special rate: \$104 for a single room or \$114 for a double.

Travel Shuttle service from the Minneapolis/St. Paul International Airport is available through Express Shuttle USA, which runs every half hour at a cost of approximately \$13 one-way, \$21 round trip. Taxicab service is also available from the airport at a cost of approximately \$25 one-way.

Payment and Billing Registration is coordinated by the University of Minnesota College of Continuing Education. Payment options include: check payable to the University of Minnesota; a purchase order from your institution; or credit card charge (VISA, MasterCard, Discover card or American Express). Payment must be in US dollars and must accompany registration. Registration can be done on the web (<http://www.coafes.umn.edu/nabc2002/register.html>) with a credit card number or via a downloaded PDF file for mailing or faxing to the conference registrar. Information on Continuing Education Credit, scholarships, special needs, and refunds is available at the same URL.

National Agricultural Biotechnology Council

GENERAL INFORMATION ON *FOODS FOR HEALTH*:

<http://www.coafes.umn.edu/nabc2002>

Registration information:

Registrar, University of Minnesota, 20 Coffey Hall, 1420 Eckles Avenue,
St. Paul, MN 55108
612-625-5726
fax 612-624-5359
rbenson@cce.umn.edu
<http://www.coafes.umn.edu/nabc2002/register.html>

Conference program information:

NABC Host, University of Minnesota, 277 Coffey Hall, 1420 Eckles Avenue,
St. Paul, MN 55108
612-625-6710
fax 612-625-4743
nabc2002@mail.coafes.umn.edu
<http://www.coafes.umn.edu/nabc2002/schedule.html>

For room reservations at the Radisson Hotel Metrodome, Minneapolis:
1-800-822-6577 or 612-379-8888, and mention the NABC *Foods for Health* conference

**Dated
Information
Enclosed**

NABC
Boyer Thompson Institute, Rm. 419
Tower Road
Ithaca, NY 14853

