

NABC NEWS

Spring 2010 No. 40

*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 Citizens' University New Year celebrations have come and gone and now many of us await the promise of spring. This has been a tough winter in more ways than not. No matter how far our biotechnology breakthroughs have taken us, most universities are now struggling mightily to reshape, reorganize, and rethink themselves into a set of resources typically 10, 20 and, in some places, 30 and 40% smaller than what were available a few short years ago. I believe it fair to say that, among the land-grant institutions of the United States, never in modern history have we experienced such a retrenchment at the levels, depth and severity now being reflected from shore to shore and border to border, all when our society needs an educated citizenry more than ever.

The Allstate television commercial says, "Was it the great recession or the recession that made us great?" I am not willing to say that any recession makes us great, however I am willing to concede that—under stress and challenge—great minds and creative spirits can find ways to rethink our future and draw visions that are compelling as well as innovative and worthy of investment. Our land-grant heritage is based upon a belief in the necessity of combining commitments to research, teaching and extension, *i.e.* the discovery of new knowledge, the creation of a newly trained generation and the outreached hand of the land-grant system to our citizens. It remains today the gold standard of effectiveness and, therefore, worthy of investment on the part of society.

History tells us that recovery from this recession will not be rapid. Many of our land-grant universities will re-envision themselves based on core strengths and will seek partners to remain true to their tripartite mission. This is not a time to question the validity of these core missions, but rather a time to creatively reestablish new mechanisms to achieve each of the three missions. It is a time to partner and seek those with similar passions and complimentary strengths. It is a time to rely



MARK McLELLAN
NABC CHAIR 2009—2010

on best practices and a time to recommit to being the citizens' university. Quality programs and progressive thinking will stimulate investment.

Our Research Mission

The creation of new knowledge and new understanding through research is at the very soul of our land-grant universities. The day we abandon the search for new knowledge is the day we cease to be effective universities. Our passion for knowledge and discovery fires the imagination and when presented vividly is no different from the drama of Christopher Columbus describing the Bahamas on first landfall or from the awe of Neil Armstrong reflecting on his first steps on the moon. To limit one's hunt to only applied knowledge is shortsighted folly. That path will prevent us from discoveries that will truly transform and leapfrog our world in quantum leaps, not baby steps, at a time when our stakeholders desperately need those quantum leaps.

On the other hand, even in the fields of biotechnology, focusing one's hunt on only basic research is too loose; we will find ourselves disconnected from our paymaster and arbitrary in our steps, as our society seeks solutions. The answer for our universities is balance: BOTH basic and applied, BOTH new discovery and

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NABC 22: *Promoting Health by Linking Agriculture, Food and Nutrition* University of California, Davis June 16–18, 2010

Alan Bennett

NABC's twenty-second annual conference will address one of the major issues of this century: promoting health through agriculture, food, and nutrition. With healthcare consuming so much of the developed world's resources, there is a critical need to understand how diet, nutrition, and the underlying agricultural production systems impact human health. Speakers at NABC 22 will address the science linking agriculture, food, and nutrition to health, with the goal of informing both research priorities and government policies that seek to improve human livelihoods.

Agriculture and conventional food systems have provided the basis for long and healthy lives, which have improved dramatically over the last century, and much of that improvement can be traced to healthier diets. At the same time, we are faced with a growing critique that conventional food systems are a significant contributor to the health crisis that developed countries are facing, particularly related to obesity and diabetes. It is with this dichotomy—agriculture and diet being both the problem and the solution to an increasing health crisis—that this conference is framed, addressing both sides of the issue.

NABC 22 will also be focused on research strategies to better promote health through food and diet as well as on how governmental regulatory systems are providing oversight of the relationship between food and health.

The conference will be organized in five sessions designed to frame the questions and develop deep insights:

I. **Agriculture, Food, and Health: The Problem and the Solution**

- Food and nutrition: The good, the bad, and the ugly (Carl Keen, UC Davis)
- Future trends in designing and producing healthy food (Catherine Woteki, Mars, Inc.)
- The American diet: Voluntary action vs. government action (Michael Jacobsen, Center for Science in the Public Interest)

II. **Food for Health Successes and Prospects**

- The pipeline of a new generation of foods (Robert Fraley, Monsanto Co.)
- The mammalian milk genome: Knowledge to improve human health through foods (Bruce German, UC Davis)
- TBA

III. **Choosing Foods for Health**

- Social and cultural dimensions of eating habits and health (Charlotte Bilekoff, UC Davis)
- Farm to school: Giving kids a healthy choice for lunch (Robert Knight, Old Orange Grove)
- TBA

IV. **Regulatory Frameworks for Food Health Claims**

- Bringing nutrition science to inform regulations (Joanne Lupton, Texas A&M University)
- US food-labeling regulations (Barbara Schneeman, US Food and Drug Administration)
- Trends in European food regulations (Miguel Silva, European Advisory Services)

V. **Food for Health Strategies and Programs**

- The Alimentary Pharmabiotic Centre: Interfacing food and medicine (Fergus Shanahan, University College Cork)
- A national network for advanced food and materials (Rickey Yada, University of Guelph)
- Where will business find the next best food and nutrition innovations? (Will Rosenzweig, Physic Ventures)

Following each afternoon session there will be—as is traditional for NABC conferences—breakout workshops for discussion of the plenary-session topics and to formulate recommendations for NABC to communicate to policymakers.

NABC 22 will convene at 1:00 PM on Wednesday, June 16, 2010, on the campus of the University of California, Davis, in a new conference center adjacent to the UC Davis Arboretum and in close proximity to downtown Davis. Davis is centrally located with Napa Valley and San Francisco to the west and Lake Tahoe and Sacramento to the east. The conference will close after lunch on Friday, June 18, 2010. For further information on the program and on travel, accommodations and registration, please see the conference website at <http://nabc.ucdavis.edu/>.

The *Student Voice* program has become an important part of NABC meetings and NABC council members are urged to identify students interested in participating. One student from each member institution will receive a complimentary registration and up to \$750 from NABC to help defray costs (see <http://nabc.cals.cornell.edu/studentvoice/index.cfm>). *Student Voice* delegates will attend the plenary sessions and workshops and meet after session IV to identify issues and emerging themes. Their insights will be reported in the wrap-up session of the conference and published in *NABC Report 22*.

General Registration

Online registration is available at <http://nabc.ucdavis.edu/>. The fee is \$200 before May 15, 2010, after which it will be \$250. The registration fee covers participation in all sessions; refreshment breaks on June 16, 17 and 18; continental breakfasts and lunches on

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Public-Sector Research on Commercialized Crops

At the NABC fall 2009 council meeting (by conference call), Steve Pueppke provided information on this issue¹.

In June, 2009, the American Seed Trade Association (ASTA) called a meeting of company representatives and university-based and government corn entomologists and brokered a draft set of principles, designed to protect the property rights of companies while affording public-sector scientists independence to conduct research on commercialized, transgenic seed. It was recommended that research by public-sector scientists may include agronomic and yield comparisons; testing for compositional profile, such as oil content; studies relating

to end-use, such as animal feeding and comparative efficacy determination; studies on interactions of the trait with pest biology and pest-management practices, including interactions related to resistance management; and studies on interactions of introduced traits with the environment. However, each public-sector organization must obtain sign-off by the corporation whose transgenic seeds will be studied.

The ASTA statement does not address breeding with plants produced from the transgenic seed; reverse engineering or characterization of the genetic composition of seed-borne patent-protected traits; use of non-commercial methods to detect presence or absence of seed-borne

patent-protected traits; or research on modifications or improvements to the patent-protected traits.

NABC will continue to monitor this area. When the patents on the original transgenic seeds expire in the next few years, many of these non-addressed areas should become mute, but they will, of course, remain applicable for newer transgenic seeds. ■



¹ A report is available at <http://www.landesbioscience.com/journals/gmcrops/article/10833>.

NABC Will Co-Sponsor the Seventh *World Congress on Industrial Biotechnology and Bioprocessing* Washington, DC, June 27–30

In 2000, NABC's twelfth annual meeting, hosted by the University of Florida, Gainesville, had the theme of *The Biobased Economy of the Twenty-First Century: Agriculture Expanding into Health, Energy, Chemicals, and Materials*. It was the first conference to explore benefits from, and concerns about, the biobased economy. From that meeting grew the annual *World Congress on Industrial Processing and Biotechnology: Linking Biotechnology, Chemistry and Agriculture to Create New Value Chains*¹, co-organized and co-sponsored since its initiation by the Biotechnology Industry Organization, the American Chemical Society, and NABC. In 2007, NABC issued *Agriculture and Forestry for Energy, Chemicals and Materials: The Road Forward*²—an updated and expanded version of the 1998 *Vision Statement*³—describing opportunities for agriculture and forestry to be the basis for a hybrid bio-/petro-based economy with 100+ billion gallons of transportation fuel and value-added chemicals and materials produced from domestic biomass, and a structure for attainment.

The *World Congress* has become the world's largest conference on industrial biotechnology and the leading event for business leaders and policymakers in biofuels, biobased products, and renewable chemicals.

The seventh *World Congress* will be held at the Gaylord National Resort and Convention Center, a new waterside facility just minutes from the heart of Washington, DC. The 2010 plenary program will include leaders from industry and government with emphasis on driving commercialization and innovation in industrial biotechnology, including developments in Europe, South America, and Canada. The breakout sessions, in six tracks, will comprise a variety of categories including advanced biofuel technologies, algae and feedstock crops, renewable chemical platforms and biobased materials, specialty chemicals, pharma intermediates, food ingredients, public policy, infrastructure, business development, synthetic biology, and metabolic engineering. The tracks will also cover biotechnological solutions to climate change, biomass sustainability, new fuel molecules, the integrated biorefinery platform, and financing. For registration and other information, please visit www.bio.org/worldcongress or contact worldcongress@bio.org. ■

¹ The *Summary of the Plenary Sessions* from the 2009 *World Conference* is available at http://nabc.cals.cornell.edu/pubs/WCIBB2009_proc.pdf.

² http://nabc.cals.cornell.edu/pubs/The_Road_Forward.pdf; Hardy RWF Eaglesham A Shelton A (2007) *Agriculture and forestry for energy, chemicals, and materials: The road forward*. *Industrial Biotechnology* 3 133–137.

³ *Vision for Agricultural Research and Development in the 21st Century: Biobased Products Will Provide Security and Sustainability in Food, Health, Environment, and Economy*. <http://nabc.cals.cornell.edu/pubs/vision.html>.

NABC 22 Speakers



Charlotte Biltekoff is an assistant professor of American studies and food science and technology at the University of California-Davis. She holds a PhD in American studies from Brown University, and also has a background as a professional cook.

Dr. Biltekoff’s scholarship focuses on the values and beliefs that shape eating habits. Her research investigates the cultural aspects of dietary health; how our definitions of a good diet have changed over the course of the last century; what it means to “eat right”; and the historical relationship between dietary and social ideals.

In a book she is exploring the cultural politics of dietary advice from the late nineteenth century to the present.

The mandate of her cross-college appointment is to develop the intersection between UC Davis’s established strengths in the science of food and drink and their emerging strengths in the social and cultural analysis of food and eating. She teaches courses on food and culture, including *Eating America*, *Food and Health in the United States*, *Rethinking Obesity*, and *New Food Product Ideas*. Biltekoff is co-director of the University of California’s Multi-Campus Research Group on Food and the Body and she serves on the board of directors of the Association for the Study of Food and Society. ■



Robert Fraley oversees Monsanto’s integrated crop and seed agribusiness technology and research with facilities across the globe. He has been involved in agricultural biotechnology since the early 1980s and has been with Monsanto for a total of 25 years. Fraley has held several positions at Monsanto, including co-president of the agricultural sector; president of the Ceregen business unit prior to the merger with Pharmacia & Upjohn, with responsibilities for the discovery, development and commercialization of new crop-chemical and biotechnology products; group vice president and general manager of the New Products Division; vice president of technology for crop-chemical and plant-biotechnology R&D; director of the plant science research group; and senior research specialist in the biological sciences program.

His educational background includes a fellowship from the University of California-San Francisco, a PhD in microbiology/biochemistry from the University of Illinois and a BS degree from the University of Illinois.

Dr. Fraley has contributed to years of agricultural development through a number of significant activities, including authoring more than 100 publications and patent applications relating to technical advances in agricultural biotechnology. He received the National Medal of Technology from President Clinton in 1999 and was awarded the National Award for Agricultural Excellence in Science by National Agri-Marketing Association in 1995. ■



Bruce German is a professor in the Department of Food Science and Technology and director of the Foods for Health Institute at the University of California-Davis. His research focuses on seeking to understand how to improve foods and their abilities to deliver improved health. He is a scientific advisor to Tethys Biosciences and also to the Nestlé Research Center. He is on several boards including the International Milk Genomics Consortium and the Advanced Food Materials Network Canada, and he serves on the scientific advisory board of Physic Ventures, San Francisco. ■



Michael Jacobson is co-founder and executive director of the Center for Science in the Public Interest (CSPI), a nonprofit health-advocacy organization supported largely by the 850,000 subscribers to its Nutrition Action Healthletter. CSPI is a key player in battles against obesity, cardiovascular disease, and other health problems, using tactics ranging from education to legislation to litigation. Jacobson has written numerous books and reports, including *Nutrition Scoreboard*, *Six Arguments for a Greener Diet*, *Salt: the Forgotten Killer*, and *Liquid Candy: How Soft Drinks are Harming Americans’ Health*. ■

NATIONAL AGRICULTURAL BIOTECHNOLOGY COUNCIL



Carl Keen, a professor of nutrition at the University of California-Davis, since 1981, has served on numerous government boards including California's Scientific Advisory Board for the Office of Environmental Health Hazard Assessment, EPA Environmental Health Grant Review Panels, USDA Human Nutrient Requirements Study, and several NIH-grant panels. He is a past president of the California Nutrition Council.

Dr. Keen is a member of the American Society for Nutritional Sciences, the American Society of Clinical Nutrition, the Teratology Society, the Society for Experimental Biology and Medicine, and the American Association for the Advancement of Science. He is the recipient of numerous awards including the American Institute of Nutrition Bio-Serv Award in Experimental Animal Nutrition (1985), the American Institute of Nutrition Research Award (Bordon Award, 1995), the American Teratology Society's Warkany Award for research accomplishments in developmental biology (2004), and the ICPH 2007 Outstanding Research Award in Polyphenols by a Senior Investigator (2007). In 2002, he was recognized by ILSI as a highly cited researcher (top 0.05%) in the agricultural sciences (2002).

His laboratory group focuses on the influence of diet on embryonic and fetal development, and the effects of flavonoids on cardiovascular health. Collectively, they have published over 600 papers. ■



Robert Knight was born in Redlands, CA, and raised in an orange grove. As a restless teenager, the grove was the last place he wanted to be, and, upon graduation from high school, he headed to New York City. After spending the bulk of 20-odd years overseas, working as a telecom exec with AT&T and Lucent, ironically he returned to the Inland Empire to manage his family's citrus business and raise his own pair of restless teenagers amidst an orange grove. Proud to be a fourth-generation orange grower—but shocked by how quickly Inland Empire groves are disappearing—Knight founded the Inland Orange Conservancy, a group dedicated to saving groves and building an orange-loving community. ■



Joanne Lupton is a distinguished professor, regent's professor and university faculty fellow at Texas A&M University, and holder of the William W. Allen Endowed Chair in Human Nutrition. She chaired the Macronutrients Panel for the Dietary Reference Intakes, Food and Nutrition Board of the National Academy of Sciences, which determined intake values for protein, carbohydrates, fats, fiber and energy, and she also chaired the National Academy panel to determine the definition of dietary fiber. She was a member of the 2005 Dietary Guidelines Committee.

Dr. Lupton is a member of the Institute of Medicine and a lifetime associate of the National Academy of Sciences, and is past president of the American Society for Nutrition. Her research has focused on the effects of diet on colon physiology and colon cancer with a particular focus on dietary fiber and omega-3 fatty acids. She translates basic research on diet and colon physiology to science-based public policy, and has consulted with individuals in Japan, South Korea, China, Taiwan and elsewhere on the definition of dietary fiber and on establishing dietary-guidance systems in those countries.

Her undergraduate degree is from Mt. Holyoke College and her PhD in nutrition is from the University of California-Davis. ■



William Rosenzweig is co-founder and managing director at Physic Ventures. He focuses on creating and building early-stage opportunities that bring science to consumers in the areas of prevention, wellness and sustainable living. He also serves on the boards of directors of Attune Foods, EnergyHub, GoodGuide, and Pharmaca.

In 1990, Mr. Rosenzweig co-founded and served as president, CEO, and minister of progress of The Republic of Tea, an award-winning specialty tea company that is often credited with creating the premium tea category in the United States. In 1995, he was appointed as senior vice president of Odwalla, the nation's largest fresh-juice company where he directed the brand and strategy. He has served as faculty advisor to the Global Social Venture Competition and has been a visiting faculty member at London Business School and a guest lecturer at Stanford, Columbia, the University of California-Davis, the University of Southern California and the University of California-Los Angeles.

He has received awards for teaching from the Haas School of Business at Berkeley and from the London Business School, and has served as an advisor and consultant to the Rockefeller Foundation's ProVenEx Fund, an investment vehicle seeking "double bottom line returns" in for-profit businesses. ■



Barbara Schneeman is director of the Office of Nutrition, Labeling, and Dietary Supplements in the Center for Food Safety and Applied Nutrition at the Food and Drug Administration (FDA). She oversees the development of policy and regulations for dietary supplements, nutrition labeling and food standards, infant formula and medical foods, and serves as the US delegate to two Codex committees. From 1976 to 2007, she was professor of nutrition at the University of California-Davis, and served in several administrative roles, including chair of the Department of Nutrition and dean of the College of Agricultural and Environmental Sciences.

She received her BS degree from the University of California-Davis, a PhD from the University of California-Berkeley, and postdoctoral training in gastro-intestinal physiology at Children's Hospital in Oakland, CA.

Dr. Schneeman is a fellow of the American Association for the Advancement of Science, and is the recipient of the Carl Fellers Award from the Institute of Food Technology, the FDA Commissioner's Special Citation and the Harvey W. Wiley Medal, the Samuel Cate Prescott Award for research, the Future Leader Award, and several honorary lectureships. She is widely published and is recognized for her research contributions in the areas of gastrointestinal function, dietary fiber, lipid metabolism and food-based dietary guidelines. ■



Fergus Shanahan is a professor in, and chair of, the Department of Medicine and director of the Alimentary Pharmabiotic Centre (APC), University College Cork. He is a University College Dublin medical graduate and was awarded the gold medal in medicine from the Mater Hospital, Dublin. After internship and residency in internal medicine in Dublin, he trained in clinical immunology at McMaster University, Canada, and in gastroenterology at the University of California-Los Angeles. He has been awarded fellowships from the Royal College of Physicians in Ireland, Canada and the United Kingdom, and the American College of Physicians.

Before returning to Ireland in 1993 he was associate professor of medicine with tenure at UCLA.

He has published over 300 peer-reviewed articles and several books. As well as being director of the APC, Dr. Shanahan is also a principal investigator in the Host Response core, with particular research interests in mucosal immunology, inflammatory bowel disease and most things that influence the human experience. ■



Catherine Woteki, a nutritional epidemiologist, has held senior positions in academia, the United States government and in business. From 1997 to 2001, she served as the first undersecretary for food safety at the US Department of Agriculture (USDA), overseeing the Food Safety and Inspection Service and the US government's Office for the Codex Alimentarius Commission, and coordinated US government food-safety policy development and the USDA's continuity of operations planning. She worked for two years in the White House Office of Science and Technology Policy where she co-authored the Clinton Administration's policy statement, *Science in the Public Interest*, and served as the deputy undersecretary for research, education and economics at the USDA.

From 2002 to 2005, she was dean of agriculture and professor of human nutrition at Iowa State University, where she also was the head of the Extension Office. Since 2005, Dr. Woteki has served as global director of scientific affairs for Mars, Inc., a multinational food, confectionery, and pet-care company. In this role she has managed the company's scientific policy and research on matters of health, nutrition, and food safety.

In 1999 Dr. Woteki was elected to the Institute of Medicine of the National Academy of Sciences, and has chaired its Food and Nutrition Board. ■



Rickey Yada received his PhD from the University of British Columbia in 1984. He has been a faculty member at the University of Guelph since that time, serving as chair of the Department of Food Science and as the assistant vice president for research in agri-food programs. He is a professor in the Department of Food Science, has a Canada Research Chair in food protein structure, and is the scientific director of the Advanced Foods and Materials Network.

Dr. Yada has served on numerous research awards panels and committees. Among other activities, he is on the Nanoscience Advisory Panel for IFT, is former president of the Canadian Institute of Food Science and Technology and the chair-elect for the Scientific Council of the International Union of Food Science and Technology. He was editor-in-chief of the *Food Research International Journal* from 1992 to 1998, is the North American editor for *Trends in Food Science and Technology*, and serves on editorial boards for several other journals.

He has authored over 140 refereed publications and several book chapters.

Yada is a fellow of the Canadian Institute of Food Science and Technology and of the International Academy of the International Union of Food Science and Technology. ■

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problem solving, which feed and nourish each other with excitement and realism. Leave one behind and you miss the opportunity to make a true breakthrough, a true difference!

Our Teaching Mission

Training the next generation is inherent in each of us as parents, and we appreciate the special role teachers have at all levels. The university's responsibility to educate the next generation to be critical thinkers, creative citizens and passionate explorers is what will give us a nation of leaders for the future with a "can do" attitude. But this is not a time to be satisfied with just a classroom of thirty chairs and an instructor. This is a time to link the educational experience with the excitement of discovery. We need to take the student inside the translation of DNA to new proteins and the aggregating and folding of those proteins into a functional enzyme! We must recommit to creating undergraduate research experiences, and we need to extend to new models providing continuing education opportunities for citizens of all ages and persuasions. Instead of simply building new educational sites, we should be looking at immersive technologies to bring the learning environment to students—when they want it, where they want it and how they want it—for ultimate personalization of the learning experience.

This is also a time to relate learning programs to real-world issues, challenges and opportunities. We need to extend the "classroom" to the industrial plant floor, library reading room, corporate boardroom, and the county seat, in partnerships with the private and public sectors. We urgently need to create new visions for what is possible in learning, especially if we are to remain competitive and innovative producing explosive experiences whereby every student will capture the "wow!" of acquiring new knowledge.

Our Extension Mission

The land-grant mission requires us to reach out to our citizens and enable them with solutions for their lives! It calls us to be always mindful of their needs and

society's constant hunger for answers. And as we design our next generation of extension, we need to recommit to a connectivity that many in ivory towers find incomprehensible. We need to take advantage of a society that has changed greatly over the past fifty years, and find new ways to reach into families and businesses as the source of sound science, clear understanding and common-sense recommendations.

While serving our farm populations and rural communities, we also need to embrace our urban communities. With a passion for making a difference, we need to look to the future of extension, not with a retraction of focus but rather newly engaged, with a laser-like embrace that adds health partnerships and daily finance to the morning, noon and evening solutions we are already known so well for.

Welcome to the citizens' university: the land-grant university! When it comes to the land-grant university, now is the time to stay the course! We have been there for our country over the decades; we must remain strong and committed to making a difference and being a part of the solution, being effective and valued in all three mission areas of teaching, research and extension. Yes, our world is changing, and, yes, we need to evolve to meet the needs of a changing world. Our vision is bright as we see an extension system that links personal health guidance to the urban agent's primary goals while still teaching our farmers to be more sustainable and productive, more like the first line of defense for our natural resources. Teaching will blossom to deliver education using immersive technologies that will make the classroom more real and more imaginative, depending upon the subject matter being explored and challenging, exciting and thrilling students as they make their discoveries. Our research will embrace a new biology for the twenty-first century as detailed in the 2009 National Academy of Sciences report, which will force us to rethink the silos we create in the academy and should drive us to create linkages between what we thought were unrelated disciplines.

Is the land-grant future strong? Yes of course. Will it be invested in? Yes, but only if we adequately make the case for return on investment, fully linking research and teaching and extension with great expectations of our citizens in this, their citizens' university. As a concrete example, NABC's 2010 conference will focus on *Promoting Health by Linking Agriculture, Food, and Nutrition* (see pages 2, 4–6, 8), one of the major opportunities for agriculture to fully link with citizens' needs. ■



Mark R. McLellan
Dean and Director

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The Student Voice at NABC

**TRAVEL STIPEND AND FREE
REGISTRATION TO ATTEND
NABC 22—HOSTED BY THE UNIVERSITY OF CALIFORNIA-DAVIS FROM JUNE
16 TO 18, 2010—FOR ONE GRADUATE
STUDENT FROM EACH NABC MEMBER
INSTITUTION**

Visit the *Student Voice* webpage
for details and deadlines

<http://nabc.cals.cornell.edu/studentvoice/index.cfm>

NATIONAL AGRICULTURAL BIOTECHNOLOGY COUNCIL

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June 17 and 18; and a reception and dinner on June 16. Also covered are the conference materials and a copy of the proceedings volume (scheduled for publication in March 2011). Lodging expenses are not covered by the registration fee.

Student Registration

The registration for students is \$100 before May 15, 2010, and \$150 thereafter. Online registration is available at <http://nabc.ucdavis.edu/> and the fee covers the same items as the general registration. Proof

of student status will be required at the registration desk.

Lodging

Blocks of hotel rooms have been reserved at the UC Davis Hyatt Place (<http://ucdavis.place.hyatt.com/> at \$159-169); the Aggie Inn (<http://www.aggieinn.com/> at \$89-115); the Palm Court (<http://www.bwpalmcourt.com/> at \$119-135); and the Hallmark Inn (<http://www.hallmarkinn.com/> at \$99-109). The campus Hyatt is directly adjacent to the conference center

and the other hotels are within easy walking distance.

For questions about NABC 22, please contact:

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