



#### 2009 UNIVERSITY-INDUSTRY (U-I) PARTNERS

The University-Industry Partners are an important part of GUIRR's membership and funding base. These Partners ground GUIRR's policy discussions with their first-hand experience. As geographically dispersed leaders in their sectors, the U-I Partners serve as GUIRR's antennae for new trends in, and pressures on, the national research enterprise. The U-I Partners provide indispensable expertise on GUIRR working groups and play a key role in suggesting new GUIRR initiatives. These partners (industry and university pairs) are:

Battelle  
The Boeing Company  
Corning, Inc.  
General Electric Company  
Hewlett-Packard Company  
IBM T.J. Watson Research Center  
Intel Corporation  
Deere & Company  
Lockheed Martin Corporation  
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Northrop Grumman Corporation  
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Pacific Northwest National Laboratory  
Raytheon Integrated Defense Systems  
Semiconductor Research Corporation (SRC)  
Siemens  
Southwest Research Institute (SwRI)  
Textron

The Ohio State University  
Georgia Institute of Technology  
Pennsylvania State University  
University of Wisconsin-Madison  
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Stanford University  
University of California, Berkeley  
Iowa State University  
University of Maryland, College Park  
University of California, Davis  
George Washington University  
California Institute of Technology  
Massachusetts Institute of Technology  
Washington State University  
University of Massachusetts  
The University of Texas at Austin  
Princeton University  
The University of Texas at San Antonio  
Northeastern University

#### FINANCIAL SUPPORT OF THE FEDERAL DEMONSTRATION PARTNERSHIP (FDP)

Along with the contribution of their employees' time and expertise, the following federal R&D agencies have contributed financially towards FDP's mission to reduce the administrative burdens associated with federal research grants and contracts. These contributions result in substantial national benefits in increasing the nation's productivity per tax payer dollar. These federal agencies are:

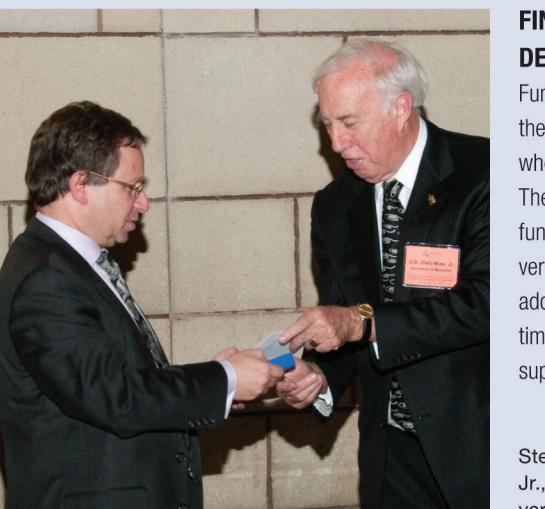
- Department of Defense
- Department of Homeland Security
- National Institutes of Health

- National Science Foundation
- Department of Agriculture
- Environmental Protection Agency

#### FINANCIAL SUPPORT OF THE UNIVERSITY-INDUSTRY DEMONSTRATION PARTNERSHIP (UIDP)

Funding of the inaugural one-year extension of UIDP was made possible by the following companies, universities, foundations and federal agencies, who contributed \$20,000 or more to the UIDP: Hewlett-Packard, Pfizer, The Boeing Company, and University of California, Los Angeles. Additional funding in 2009 was individually provided (\$4,000 annually) by the university and industry members of UIDP. The National Institute of Health, in addition to its base funding to GUIRR and FDP, provided important first-time operational support for UIDP. The UIDP also secured non-recurring support from the National Science Foundation to conduct a workshop.

Steven Koonin, U.S. Department of Energy, and C.D. (Dan) Mote, Jr., University of Maryland, College Park, at the GUIRR 25th anniversary meeting, October 2009



## GUIRR COUNCIL MEMBERS (2009)

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**Mark S. Wrighton**  
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LAURENA MOSTELLA, Administrative Assistant, GUIRR and UIDP

For more information about GUIRR visit our web site at  
<http://www.nas.edu/guiir>

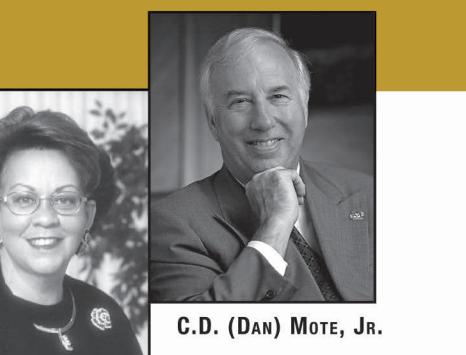
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THE NATIONAL ACADEMIES  
Advisers to the Nation on Science, Engineering, and Medicine

Annual Report 2009

# The Government-University-Industry Research Roundtable

# MESSAGE FROM THE CO-CHAIRS



LYDIA THOMAS

C.D. (DAN) MOTE, JR.

In 2009, the Government-University-Industry Research Roundtable (GUIRR) celebrated its 25th anniversary. Since its formation, GUIRR has followed its original charter to "convene the senior-most representatives from government, universities and industry to define and explore critical issues related to the national and global science and technology agenda."

GUIRR holds three formal meetings each year on such issues. In 2009 GUIRR addressed: (1) food safety challenges, given the complexity of a global food supply chain, (2) means to minimize impediments to effective partnerships, technology transfer and sharing of knowledge at the global level, and (3) the growing constraints and fragility of rare earth and other natural materials that make up current, emerging and strategic technologies. All three issue-areas have important economic as well as national security implications.

Much of the work of GUIRR, between meetings, is done by its members in working groups that can quickly catalyze high level government-university-industry cooperation on specific issues identified by the Roundtable. One highly energized working group is pursuing activities to help improve the effectiveness of international research collaborations. Another working group is examining how to best manage and cope with large data sets. A third working group quickly mobilized this past year to host a workshop designed to leverage the capabilities of the national labs in safeguarding the nation's food and food system security through innovative repurposing of current and legacy technologies.

The University-Industry Demonstration Partnership (UIDP) and the Federal Demonstration Partnership (FDP) are two semi-autonomous GUIRR-sponsored cooperative initiatives within GUIRR. The UIDP is crafting collaborative experiments on new approaches to sponsored research and licensing arrangements, with the strategic goal of a healthy, long-term university-industry relationship. The FDP, with members from 10 federal agencies and 120 institutional recipients of federal funds, helps to reduce administrative burdens associated with federal research grants and contracts.

GUIRR-initiated collaborations of individuals from the government, university and industry sectors have a continuing record of success in improving the effectiveness of the U.S. in science and technology and its application to national goals. Looking to the future, we believe this approach—reflecting the initiative of its members—will remain timely in an increasingly interdependent world.

Lydia Waters Thomas  
Co-Chair

C.D. (Dan) Mote, Jr.  
Co-Chair

# GUIRR ACTIVITIES IN 2009

## INTERNATIONAL RESEARCH COLLABORATIONS

Successful research collaboration across national borders requires recognition of differences in culture, legitimate national security needs, and critical needs in education and training, among other issues. With this in mind, GUIRR's International Research Collaborations Working Group ("I-Group") began organizing a workshop to identify issues related to the design and implementation of international collaborations, along with specific tools that have been helpful in overcoming hurdles to collaboration. The goal of this activity is to highlight current trends, opportunities and challenges, and to develop a common lexicon or lingua franca—crafted through a set of broad questions to be asked when entering into and establishing international research relationships.

## FOOD SAFETY

Melamine in milk, tainted tomatoes, red peppers, and peanuts.... all these products made the news in 2009. Early in the year and preempting many of these events, GUIRR members considered the role of inter-sector partnerships in helping to accelerate the path to solutions in safeguarding the nation's food supply. A new Food Safety Working Group quickly coalesced with a specific objective in mind: To engage senior science, technology and policy personnel from companies, the federal labs, government agencies, and research universities in an open dialogue so as to (1) highlight critical opportunities for maintaining U.S. national defense, focusing on food and the highly complex supply chain, and (2) foster new collaboration in the food safety and national defense space. A workshop was held in September 2009 and served as a forum for candid, cross-sector discussion and identification of areas ripe for innovation and collaboration.

## OVERCOMING THE TECHNICAL AND POLICY CONSTRAINTS THAT LIMIT LARGE-SCALE DATA INTEGRATION

Large-scale data integration refers to the effective assimilation, integration and use of the very rapidly growing volume of distributed, heterogeneous data in a wide-ranging variety of disciplines. This joint project of the National Academies' Board on Mathematical Sciences and Their Applications (BMSTA) and GUIRR led to the hosting in 2009 of a cross-disciplinary public workshop designed to explore alternative visions for achieving large-scale data integration. The workshop focused on three main issues: (1) the data integration challenges of scientific, engineering, and medical research communities; (2) integration of heterogeneous data; and (3) techniques for overcoming technical and policy barriers to widespread data sharing. A workshop report will be issued in 2010.

## PARTNERSHIPS FOR EMERGING RESEARCH INSTITUTIONS

Basic research is largely concentrated in our nation's research universities; however, most colleges and universities are not classified as research universities and conduct little ongoing sponsored basic research. This project focuses on the crucial role of Emerging Research Institutions, or ERIs (master's colleges and universities, baccalaureate colleges, and tribal colleges) in sustaining the nation's technological competitiveness. In 2009, a formal report of a workshop was released that addresses the major barriers to access to research for ERIs and provides a solution set for overcoming those barriers, such as optimizing faculty time and strategic partnering with larger research universities for economies of scale. The report, titled *Partnerships for Emerging Research Institutions*, is being widely disseminated and includes a roadmap for ERIs in developing their individual strategies for increasing administrative and other support for research.

## THE UNIVERSITY-INDUSTRY DEMONSTRATION PARTNERSHIP (UIDP)

The University-Industry Demonstration Partnership (UIDP) began in 2003 as a GUIRR-led working group to address intellectual property (IP) issues between U.S. universities and industry. From this modest beginning, UIDP was formally organized in 2006 with the broader mission of improving the health of research partnerships between universities and industry, thereby improving U.S. competitiveness. The membership now stands at 70 institutions from academia and industry along with strategic engagement from the government and nonprofit sectors. Reflecting the continuing interests of its members and the success of the UIDP as a networking center for universities and industry on issues of joint interest, the UIDP Board has approved a new three-year phase (Phase II) which extends the UIDP's operations through June 2013.



GUIRR Food Safety and National Defense Workshop, September 2009, Washington, DC

The UIDP is addressing a number of areas affecting university-industry (U-I) research relations:

- Foster U-I networks to improve U-I cooperation over the long term
- Achieve consensus on guiding principles for U-I collaborations
- Disseminate "best practices" for U-I partnering
- Develop and test tools to streamline U-I agreements
- Challenge long-held opinions with data

Successful projects and demonstrations are at the heart of what UIDP seeks to accomplish on behalf of its members. Current UIDP projects are:

- TurboNegotiator/Contract Accords
- Partnership Continuum Strategies
- Corporate RFPs

In 2009, two national meetings of the UIDP provided a continued U-I networking center, and a forum for sharing experiences of UIDP members and guests on successful partnerships in various industry sectors. The UIDP also held several Agreement Negotiations Workshops with topics ranging from Clinical Trials to IT/Software.

This networking and interchange of ideas is already providing significant longer term benefits in the form of more effective research collaborations for the UIDP members. In lieu of a third annual meeting in 2009 (and beyond), the UIDP Board adopted the creation of dedicated project summit where working teams can meet and deliberate projects and initiatives of interest to the membership.



Tim Mulcahy from the University of Minnesota and Jerry Duncan from Deere & Company served as the UIDP President and Vice President during calendar year 2009.

Spence M. (Sam) Armstrong; Lt. Gen. USAF (ret.) and Arden Bement, National Science Foundation

## THE FEDERAL DEMONSTRATION PARTNERSHIP (FDP)

The FDP is a unique forum enabling individuals from 120 universities and nonprofits to work collaboratively with officials from 10 federal agencies to improve the national research enterprise. At its regular meetings, FDP members hold spirited frank discussions, identify problems, and develop action plans for change. Then these new ways of doing business are tested in the real world before adoption by the federal granting agencies and broad implementation.

The FDP is currently in Phase V, which runs from October 1, 2008 through September 30, 2014. With this new phase, the number of organizations participating in the FDP increased by 22 percent. Recently, the FDP Foundation was created as a means of providing financial management and oversight for institutional funds supporting the FDP.

Current officers of the FDP include Dr. Susan Wyatt Sedwick from the University of Texas at Austin, who serves as Chair, and Dr. David Robinson from the Oregon Health and Sciences University, who serves as Vice-Chair. Their three-year term of office will conclude on September 30, 2011.

The FDP projects pursued in 2009 have positioned the FDP as a source of information and mechanisms for gathering input from a readily available pool of diverse academic institutions. The FDP's accomplishments for 2009 and impact on agency practices include the following:

1. ARRA Task Force. The FDP responded quickly to the American Recovery and Reinvestment Act of 2009 (ARRA), serving as a clearinghouse for information gathering and sharing, frequently asked questions, and good practices to assist universities in responding to the ARRA reporting requirements. The goal is to provide greater consistency in data submitted from member institutions. The FDP joined forces with the Council on Governmental Relations (COGR) to leverage resources in providing a single portal for information on the ARRA.
2. STAR Pilot. Pursued in cooperation with the NSF Committee on the Science of Science Policy and the White House Office of Science and Technology Policy, this pilot is designed to demonstrate feasibility and efficacy of a standardized way of collecting "jobs created/retained" data on federally funded research. The pilot has received widespread interest from federal agencies and executive branch leadership and is proposed for expansion in 2010.
3. Streamlining A-133 Audit Compliance. This longstanding FDP project has continued to gather more participants and audit information.
4. Established the Joint Application Design Team. This working group assists Grants.gov staff in improving systems and processes associated with the submission of applications for federal assistance funding.
5. Faculty Burden Survey. The FDP continued its efforts to implement the recommendations arising from the original survey and to further analyze the survey data while planning for the next update.
6. Research Compliance. Newly established in Phase V is a committee dedicated to exploring ways of streamlining compliance processes. This committee has four subcommittees: Conflict of Interest, Human Subjects, Animal Subjects, and Export Controls.
7. Project Certification. The FDP is working with the Office of Naval Research and the U.S. Department of Health and Human Services in exploring alternate mechanisms for certifying research effort on federally funded research grants. This project, while long in the planning, is now under way in pilot mode.

## FINANCIAL SUPPORT OF GUIRR "CORE" ACTIVITIES

### FEDERAL AGENCIES

Federal R&D agencies provide essential core funding for GUIRR. This support is often vital in enabling GUIRR to quickly evaluate and take on projects of its member's choosing, rather than wait for a specific contract or grant to cover an activity. These federal agencies are:

- National Institutes of Health
- Department of Defense
- Department of Homeland Security
- National Institute of Standards and Technology
- Department of Agriculture