

THE NATIONAL ACADEMIES

Advisers to the Nation on Science, Engineering, and Medicine

**“Entrepreneurship, Innovation and Economic Growth”
Government University Industry Research Roundtable Meeting
February 24, 2005
Room 100 Keck Building
The National Academies
500 Fifth St., NW, Washington, D.C. 20001**

- 7:30 – 8:00 Continental Breakfast Available
- 8:00 – 8:10 Co-Chairs’ Welcome and Introductory Remarks
- Bill Joyce, CEO, Nalco and
 - Marye Anne Fox, Chancellor, University of California, San Diego

UPDATES ON CURRENT PROJECTS

- 8:10 – 8:30 **GUIRR “Coalition of the Concerned” Activities on Deemed Exports**
GUIRR volunteers: Sam Armstrong, Jim Bloedel, Claude Canizares, Ed Furtek, John Hunt, Wayne Johnson, Eva Pell, Frank Pita, Kelly Sullivan
Collaborators: Todd Willis (Commerce), Greg Doerrler and Jim Short (DOD), Carolyn Hanna and Stephanie Edwards (DHS), Deborah Wilson (NIH)
- Gen. Sam Armstrong, retired, NASA
Reports of the working groups activities since the last GUIRR meeting.
- 8:30 – 8:40 **GUIRR-IRI-NCURA “University-Industry Partnership” IP Project**
GUIRR volunteers: Larry Rhoades, Wayne Johnson, Roberto Peccei
Collaborators: Bob Killoren (NCURA); Susan Butts (IRI).
- Larry Rhoades, President, Extrude Hone Corp
Progress update.
- 8:40 – 8:55 **Federal Demonstration Partnership (FDP)**
- Nancy Wray, Senior Associate Director, Office of Grants and Contracts, Dartmouth College
Nancy Wray is the new chair of the Federal Demonstration Partnership, a working collaboration between research administrators in universities and their counterparts in federal agencies. GUIRR launched the FDP in 1986, and the FDP

has thrived as a semi-autonomous organization ever since. Ms. Wray will give a brief “State of the FDP” address.

8:55 – 9:15 **Frameworks for Higher Education in Homeland Security**

- Melvin Bernstein, Director, Office of University Programs, Department of Homeland Security

Mel Bernstein will give his office’s thoughts with respect to the GUIRR-initiated report, “Frameworks for Higher Education in Homeland Security,” which was released in late October, 2004. The report gives guidance on how universities might structure educational offerings, certificates and degrees in homeland security.

9:15 – 9:35 **BASIC**

- Wayne Johnson, Vice President, University Relations-Worldwide, Hewlett-Packard

Update on the recent activities of the Bay Area Science Innovation Consortium. (BASIC), a San Francisco Bay Area organization whose regional activities parallel many of GUIRR’s national efforts.

ENTREPRENEURSHIP, INNOVATION AND ECONOMIC GROWTH

9:35 – 10:05 **Partnerships of Research Excellence between the U.S. and U.K.**

- Professor Sir Gareth Roberts, President, Wolfson College, Oxford University
Gareth Roberts plays a highly influential role in science and technology policy within the U.K. His commissioned reviews have helped define the U.K. approach to funding algorithms for its universities, and have delineated policy steps for maintaining a healthy national supply of scientists and engineers. Sir Gareth, who is President of the UK Science Council, is currently leading a review of the strength of transatlantic research partnerships between the US and UK, and will address the GUIRR membership on his findings.

10:05 – 10:35 **BREAK**

10:35 – 11:50 **Panel: Using Universities to Stimulate Entrepreneurship, Innovation and Regional Economic Growth: What Works, What Doesn't, Lessons Learned**

- Irwin Feller, Senior Visiting Scientist, American Association for the Advancement of Science (AAAS)

Irwin Feller has conducted multiple scholarly investigations into the relationships between state universities and state governments in the quest for regional economic growth. Dr. Feller will present his “lessons learned” with respect to the historical

efficacy of common university-based technology development and technology transfer policies.

- Mary Walshok, Associate Vice Chancellor, Public Programs Dean, UCSD Extension

Mary Walshok has played a seminal role in organizing UCSD to address regional innovation needs. One outcome of her efforts was UCSD CONNECT, a technology entrepreneurship network of 750 companies. Dr. Walshok will reflect on the challenges, successes, and failures facing universities that wish to stimulate local economic growth.

- Eugene (Gene) Fitzgerald, The Merton C. Flemings-SMA Professor of Materials Science and Engineering, MIT; and co-founder, Amberwave Technologies

Gene Fitzgerald moved strained silicon from a benchtop discovery to a start-up company with \$46 million in venture funding. The process was an object lesson in the missing “gaps” in our national innovation system. Prof. Fitzgerald will discuss what steps might be taken to make the transition easier for the next generation of innovators – a topic he now examines in classes he teaches at MIT.

11:50 – 12:10 **Tech Transfer Fellowships**

- Lesa Mitchell, Program Officer, Technology Transfer and Commercialization, Kauffman Foundation

The Ewing Marion Kauffman Foundation is considering launching a series of Technology Transfer Fellowships, a concept somewhat parallel to their Venture Capital Fellowships. The Foundation is interested in feedback on the tech transfer fellowship concept and solicits potential industry partners from the GUIRR membership.

12:10 – 1:40 **LUNCH** (other half of room 100 Keck)

- Declan Ganley, Chairman and CEO of the Ganley Group of Companies
Declan Ganley is a global, serial entrepreneur who has launched successful businesses in a variety of unusual environments. In the early 1990s, he founded and built Kipelova Forestry Enterprises, the largest forestry operation in Russia. Subsequently, he developed an investment fund in Albania, the Anglo Adriatic Investment Fund. The fund currently has 45,000 Albanian shareholders. Cable Bulgaria was another successful effort, with 250,000 subscribers, as was Broadnet, which is now the largest Pan European Broadband wireless communications company. More recently, Declan has launched Guardian Net LLC to deliver a wireless telecommunications network in Iraq, in collaboration with Lucent, Qualcomm, and Samsung. With adventures, experiences, and enterprises too numerous to catalogue, Ganley brings to GUIRR a sense of how it is possible to inject entrepreneurship into every conceivable situation.

1:40– 2:55

Panel: The Economic Impact of Innovation

- Paul Reynolds, Director, Research Institute, Global Entrepreneurship Center, Florida International University

Professor Reynolds will discuss the index he has developed for quantifying the intensity of entrepreneurial activity in a nation/region. The index incorporates the entrepreneurial activities of both start-ups and existing firms. Use of this index allows one to track entrepreneurial activity for a given region or nation over time, to develop comparisons among regions/nations, and to correlate entrepreneurial intensity with other economic indicators, such as GDP.

- Robert Cohen, Fellow, Economic Strategy Institute

“Grid computing” refers to the ability of an individual or organization to harness, on demand, the “downtime” of existing computers all over the world -- regardless on whose desktop they sit – to tackle large, computationally-intensive problems. The ability to access “terabits from your desktop” has the potential to spawn the next innovation boomlet after the Internet. Dr. Cohen will discuss potential innovations that grid computing may provide and present his economic model on the likely impact of grid computing, with potential benefits by industry sector.

- Charles (Chuck) Wessner, Director, Capitalizing on Science, Technology, and Innovation: An Assessment of the SBIR Program, The National Academies

Founded in 1982, the SBIR program has steadily disbursed 2.5% of the government’s external R&D funding in the form of innovation awards to small companies. Congress recently tasked the National Academies to conduct the first comprehensive evaluation of the \$2 billion program in its 20 year history. This presentation from the study’s director will review some myths and realities about the U.S. innovation system, the Valley of Death and the role SBIR plays in crossing it, and briefly touch on some of the program’s accomplishments and assessment challenges.

2:55-3:25

BREAK

3:25 – 4:15

Panel: Devices, Techniques, and Products to Stimulate Innovation

- Andrew Hargadon, Associate Professor of Management and Director, Technology Management Programs, UC Davis

Author of the recent book, “How Breakthroughs Happen: The Surprising Truth About How Companies Innovate,” Prof. Hargadon will reflect on the book’s findings about the role of networks in innovation, with particular attention to how corporate innovation networks and technology brokering might be implemented on a national scale.

- Barry Datlof, Founder, BirchBob, Inc.

Barry Datlof will demonstrate BirchBob, a worldwide one-stop search engine for licensable technologies from academia, government, and industry. He will discuss how the tech transfer community can create XML web standards to bring together

inventors and their inventions with entrepreneurs, funders, industry, and regional economic development interests.

4:15-4:45 **Council on Competitiveness, National Innovation Initiative (NII)**

- David Attis, Deputy Director, National Innovation Initiative, Council on Competitiveness

David Attis will brief the GUIRR membership on the findings and recommendations of the Council on Competitiveness' National Innovation Initiative Report, released in mid-December 2004. The report represents a year and a half of effort from 7 working groups and 19 CEO/President-level "Principals" from around the nation.

- GUIRR Members
 - Kelly Sullivan, Director University Relations and Fellowship Programs, Pacific Northwest National Laboratory
 - Jean-Lou Chameau, Provost and Vice President of Academic Affairs, Georgia Institute of Technology
 - Mary Good, Dean, Cyber College, University of Arkansas

Three of the GUIRR members who worked on the NII will reflect on their NII working group's conclusions and suggest potential applications to future GUIRR activities.

GUIRR RESPONSE

4:45-5:00 **Next Steps for GUIRR**

Thoughts or suggestions from the membership on future projects GUIRR might undertake in the area of innovation, entrepreneurship, and economic growth.

5:00– 6:00 Cocktails, Hors D'Oeuvres and continued discussions
(Pre-function area, just outside Rm.100 Keck)