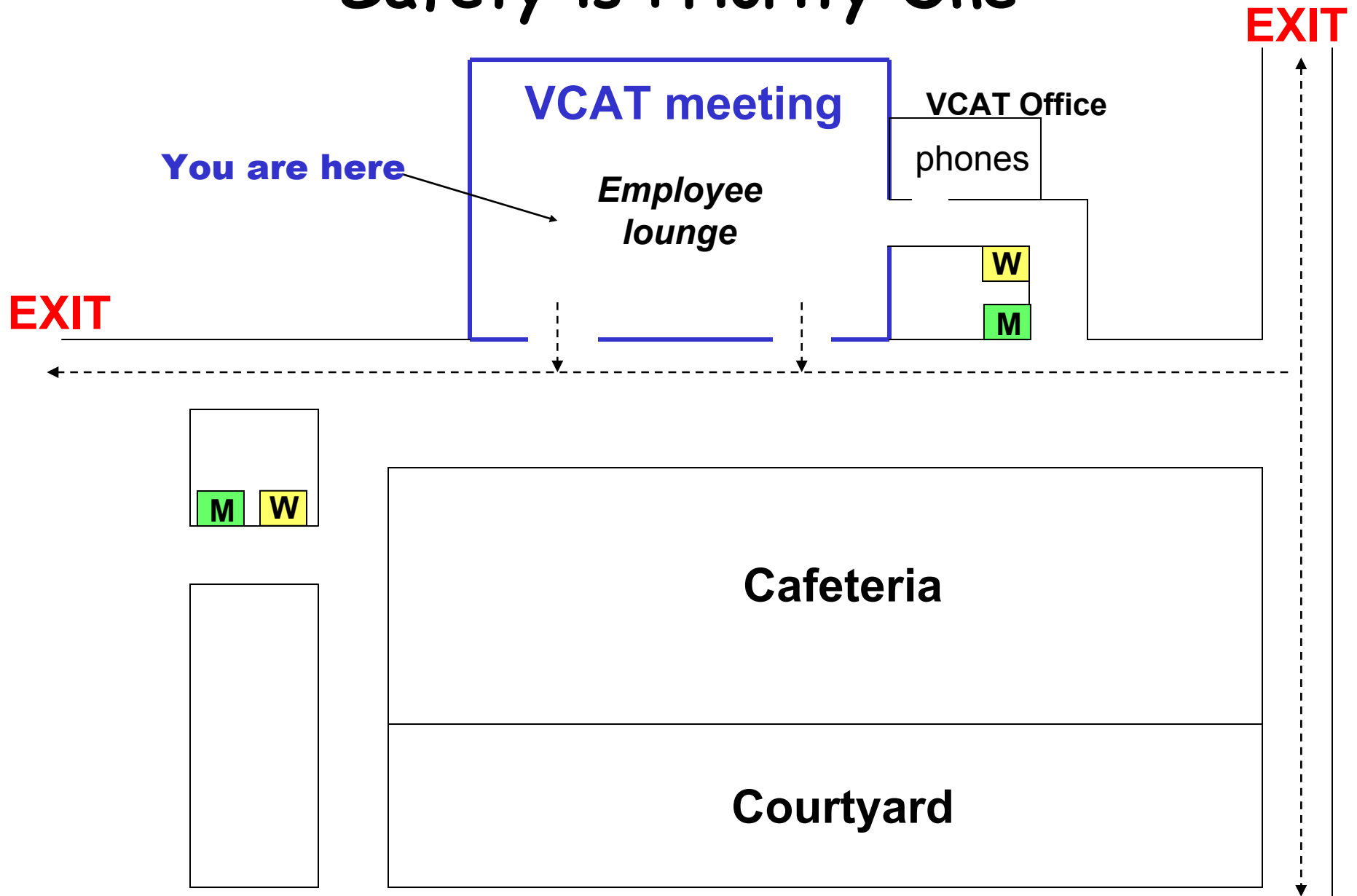


Safety is Priority One



NIST Update & Review

Hratch G. Semerjian
Acting Director

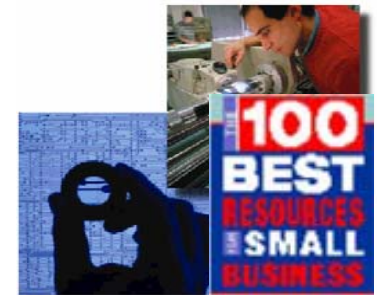
Visiting Committee on Advanced Technology
June 8, 2004

Outline of Agenda

- Recognition
- Recent Programmatic Developments
- Strategy:
 - Review NIST 2010
 - Review Implementation of NIST 2010
- Update on Baldrige National Quality Program
- Recent Outreach Activities

NIST Recognition

- NIST Research Library received the 2003 Federal Library of the Year Award
- MEP one of 15 finalists for the 2004 Innovations in American Government Award



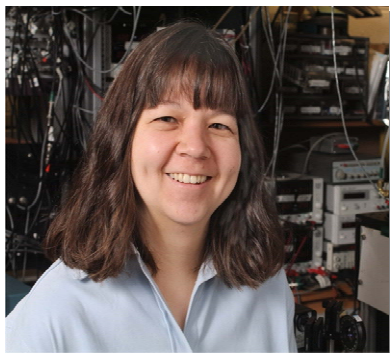
NIST Recognition

Arthur S. Flemming Award Recipients

Georgia Harris



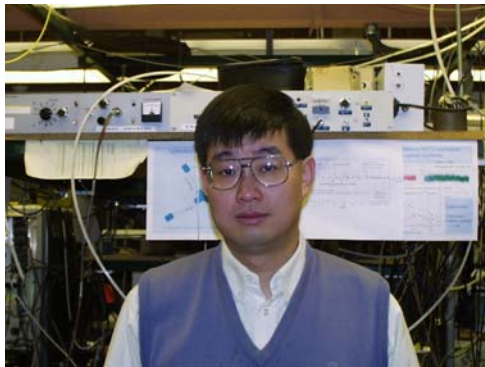
Debbie Jin



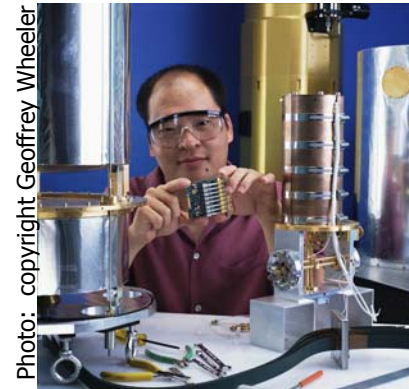
Charles Tarrio

NIST Recognition

- White House Ceremony to recognize the 2002 Presidential Early Career Award for Scientists and Engineers (PECASE)



Jun Ye



Sae Woo Nam

- 2004 National Engineering Award

Daniel Benigni

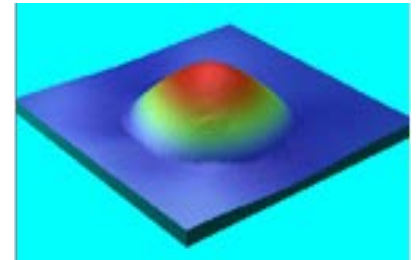


Technical Accomplishments

- Portable “Rainbow” source improves color calibrations



- Scaling friction down to the Nano/Micro realm



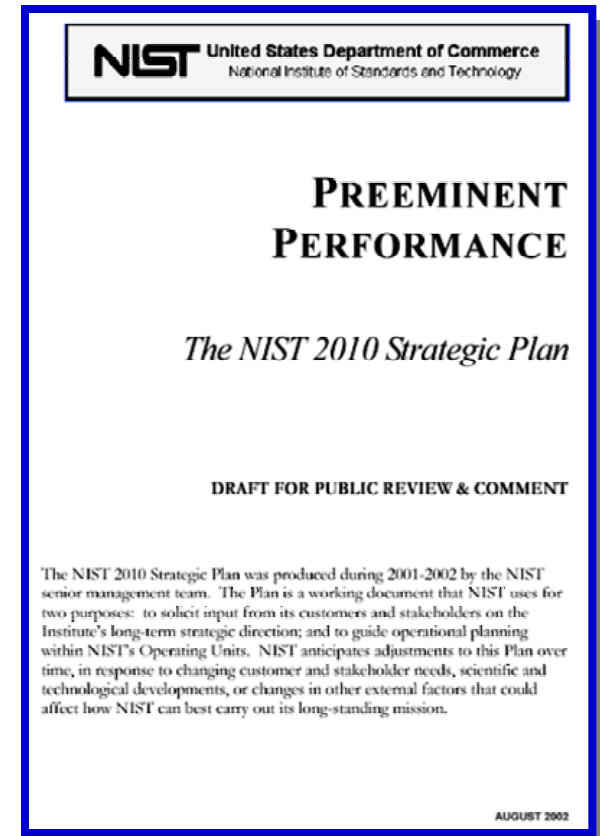
Technical Accomplishments

- NIST providing 'Higher Order' reference methods and SRMs needed for U.S. IVD industry compliance with EU directive
- Standard to help diagnose heart attacks
- Cryptographic system sets speed record for quantum encryption



Revisions to NIST 2010

- NIST 2010 Version 1b distributed
- VCAT review and feedback critical
- DOC and OMB rely on VCAT view of NIST strategic direction



Help America Vote Act (HAVA)

- NIST serves in a consulting role to the Election Assistance Commission (EAC)
- NIST completed a report to Congress (sent by EAC) on human factors and voting systems
- NIST will chair the Technical Guidelines Development Committee (TGDC)
- TGDC will begin working in July



USA PATRIOT Act: Biometrics

- Statutory Mandates
 - USA PATRIOT Act (PL 107-56)
 - Enhanced Border Security and Visa Entry Reform Act (PL 107-173)
- NIST: Standards, Evaluations, and Test Methodology & Data
 - Fingerprints
 - Face Recognition
 - Multimodal Biometrics



Biometrics: Current Activities

Fingerprints

- Test accuracy of matchers from fingerprint vendors
- Test accuracy of US-VISIT Identification System
- Test accuracy of FBI Fingerprint Identification System
- Measures for fingerprint image quality
- INCITS and ISO standards committees

Face recognition

- Test accuracy of vendor systems
- INCITS and ISO standards committees

Multimodal biometrics

- Collect simultaneous fingerprint, face, and iris data

National Nanotechnology Initiative

Supports US long-term nanoscale R&D: 9 Grand Challenges

- **Metrology and Instrumentation**
- Manufacturing at the Nanoscale
- Nanostructured Materials by Design
- Nano-electronics, Photonics and Magnetics
- Healthcare, Therapeutics and Diagnosis
- Efficient Energy Conversion and Storage
- Microcraft and Robotics
- Nanoscale Processes for Environmental Improvement
- Chemical-Biological-Radiological Explosive Detection and Protection

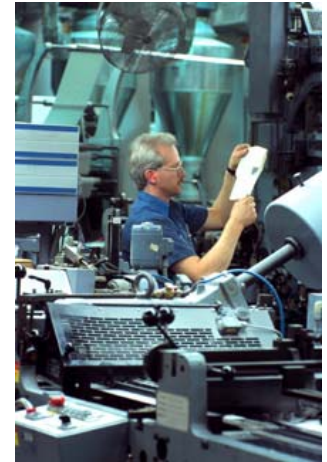
NIST held a workshop on Instrumentation and Metrology

DOC Manufacturing Initiative

2004 DOC Manufacturing Report makes broad recommendations

Key NIST Roles:

- Laboratory Research and Development
- Manufacturing Extension Partnership – cites contributions, recommends improved internal DOC coordination
- Standards Initiative



Standards Initiative

- Launched in March 2003 by Secretary Evans: ensure Federal government works effectively to eliminate standards-related barriers to trade
- Responds to industry concerns that standards and technical regulations are becoming among the greatest challenges to expanding exports
- Five of eight initiative points involve NIST
- NIST is collaborating actively with the International Trade Administration on implementation
- Status report, with recommendations and next steps, released on May 18



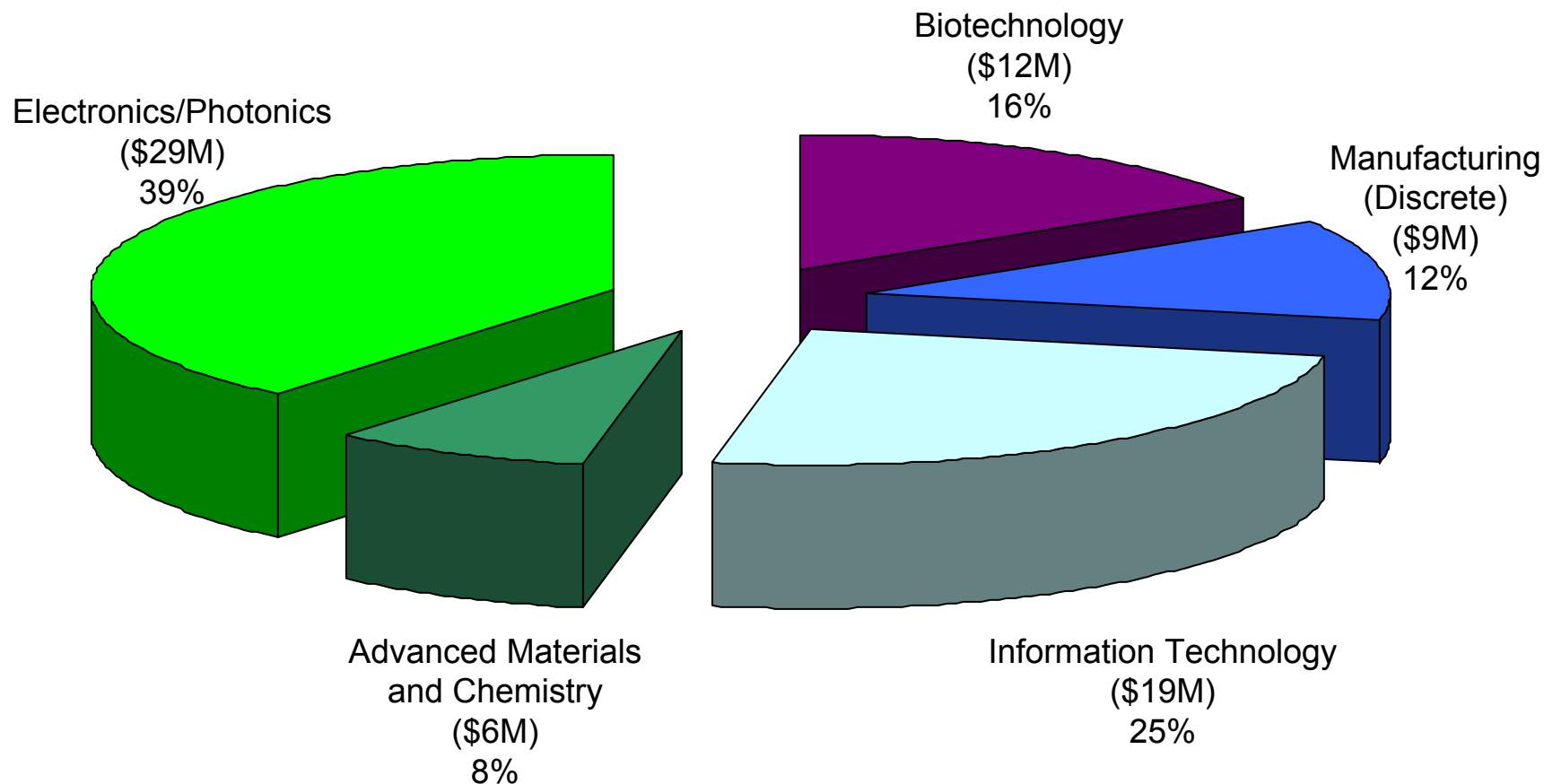
Homeland Security

- NIST expanding contributions to Homeland Security efforts
- WTC investigation progressing well: Report expected 12/04
- Coordination between 9-11 Commission and NIST on WTC Study and closer coordination with DHS
- National Construction Safety Team (NCST) Act
 - Funding uncertain for future NCST investigations



2002 ATP Competition Batch 3 Completed

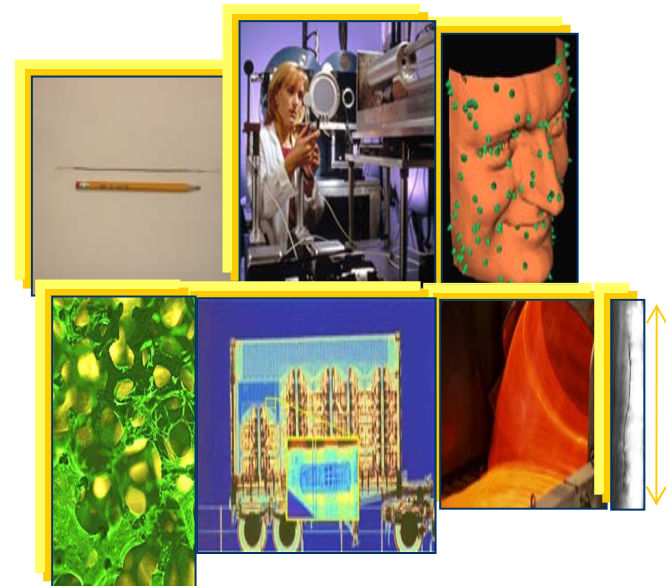
27 ATP Awards Announced May 2004
\$75 M Total Projects (ATP \$30 M)



NIST Advanced Technology Program

Status of ATP 2004 Competition....

- Competition announced
- Ten Proposers Conferences held in March 2004
- 870 proposals received



Manufacturing Extension Partnership Program

- All existing MEP Centers will be maintained through FY 2004
- Reduction in central support activities
- Reduction in internal staffing
- Exploring strategic partnerships with other agencies
- Extensive support from
 - Capitol Hill, industry, trade associations



Manufacturing Extension Partnership Program

Final NAPA Study of MEP released June 7, 2004.

Recommendations include:

➤ Phase I

- Barriers for productivity and performance improvement to challenge small manufacturers
- Small manufacturing market is underserved; MEP is uniquely situated to respond

➤ Phase II

- Build on the Program's successes
- Focus on technology diffusion
- Integrate national network
- Improve coordination and partnerships
- Implement new business practices

Baldrige National Quality Program

- President Bush presented the Malcolm Baldrige Award to seven recipients March 2004
- These are the most Baldrige Award recipients since the program started in 1988 and the first time that recipients were named in all five Baldrige Award categories
- For 2003, Baldrige Award applications were up by 40%



Other Planned NIST Activities

AML Dedication Ceremony
- June 21



Rededication Ceremony of
Boulder Laboratories
- September 13



**President Eisenhower dedicates NIST's
Boulder campus in 1954**