EU/US International Conference on Aging, Disability, and Independence

*Preparatory Workshop: High Technology Track*

June 26-27, 2003

**NSF Activities in Disability-related Research**

Gilbert B. Devey, Program Manager

*Research to Aid Persons with Disabilities Program*
NSF’s Vision and Mission

VISION

• Enabling the Nation’s future through discovery, learning and innovation.

• Realizing the promise of the 21st century depends in large measure on today’s investments in science, engineering and mathematics research and education. NSF investments – in people, in their ideas, and in the tools they use - will catalyze the strong progress in science and engineering needed to secure the Nation’s future.
NSF’s Vision and Mission

MISSION

• To promote the progress of science; to advance the National health, prosperity, and welfare; to secure the National defense; and for other purposes.
NSF’s Strategic Goals

• **People** - A diverse, internationally competitive and globally-engaged workforce

• **Ideas** - Discovery across frontiers and connections to learning, innovation and service to society

• **Tools** - Accessible, state-of-the-art information bases and shared tools
PEOPLE – IDEAS – TOOLS

- Information Technology Research
- Nanoscale Science and Engineering
- Sensors and Sensor Systems
- Small Business Innovation Research
- Program for Persons with Disabilities
- Human-Computer Interaction; Universal Access
- Undergraduate Design Projects (for persons with disabilities)
The Aware Home: 
*Sustaining the Quality of Life for an Aging Population*
Gregory D. Abowd, PhD; Award 0121661; Georgia Institute of Technology

...advances in three research areas: human-computer interaction; computational perception; software engineering...

**MavHome: An Intelligent Environment Home**
Diane J. Cook, PhD; Award 0121297; University of Texas, Arlington

...an intelligent agent able to perceive its environment through the use of actuators and act upon that environment using actuators...
Information Technology Research (ITR)

A Distributed Programming Infrastructure for Integrating Smart Sensors

U. Ramachandran, PhD; Award 0121638; Georgia Inst. Tech.

...checking a common class of real-time interrupt-driven systems (flight control; railway signaling; medical devices; vehicle management systems)…
“Through self-delivered nano-medical interventions, patients in the future will be able in the comfort of their homes to perform noninvasive treatments autonomously or under remote supervision by physicians.” *Converging Technologies for Human Performance* (NSF/DOC June 2002; p. 160)

**The ultimate smart home?**
Interagency Committee on Disability Research

“to promote coordination and cooperation among Federal departments and agencies conducting rehabilitation research programs.”

http://www.icdr.us

- Annual report to President and the Congress
- Workshop: Cell Phone Interference with Hearing Aids
- One click for all U.S. funded disability research projects
- Report: U.S. Assistive Technology Industry