Office of University Programs  
Dr. Mel Bernstein, Director  

National Objective
Establish a coordinated, university-based system to enhance the Nation’s homeland security.

Our Vision
*We envision …* a broad research capability within the nation’s universities to address scientific and technological issues related to homeland security.

*We envision …* a sustainable and flexible science and technology workforce dedicated to homeland security.

*We envision …* future generations of scientists and engineers whose intellectual pursuits are aligned with homeland security and motivated by public service.

Our Mission
The Office of University Programs seeks to stimulate, coordinate, leverage and utilize the unique intellectual capital within the academic community to address current and future homeland security challenges to provide educational support and relevant experiential learning opportunities to diverse and highly talented individuals in order to enhance the scientific leadership in areas of importance to DHS.

Our Goals
- Strengthen U.S. scientific leadership in homeland security research; generate and disseminate knowledge and technical advances to advance the homeland security mission.
- Integrate homeland security activities across agencies engaged in relevant academic research.
- Foster a homeland security culture within the academic community through research and education programs.
- Create and leverage intellectual capital and nurture a homeland security science and engineering workforce.

These goals are achieved through two core programs: University-based Department of Homeland Security Centers of Excellence (DHS Centers) and the DHS Scholars and Fellows Program.
University-Based Homeland Security Centers

The Office of University Programs also serves the current and next generation of public-service oriented scientists through grants to university-based Department of Homeland Security Centers of Excellence (DHS Centers). Homeland Security and its partner universities bring together the nation’s most talented researchers on a variety of scientific priorities that include foreign animal disease, food protection, risk analysis and economic consequences, and behavioral aspects of terrorism and response to terrorism.

S&T has awarded four grants and announced an additional center for the university-based Homeland Security Centers to foster homeland security mission-critical research and education. Topics are being evaluated for additional centers.

Current DHS Centers

- The Department selected the University of Southern California partnering with the University of Wisconsin at Madison, New York University, and Structured Decision Corporation (affiliated with Massachusetts Institute of Technology) to house the first DHS Center, known as the Center for Risk and Economic Analysis of Terrorism Events (CREATE).

  DHS awarded in February 2004 $12 million over the course of three years for the study of risk analysis related to the economic consequences of terrorist threats and events.

- The University of Minnesota has been awarded $15 million over three years for the National Center for Food Protection and Defense, which will address issues related to defending the nation’s food supply. The University of Minnesota’s team includes industry, public sector partners and more than 20 other universities including Michigan State University, University of Wisconsin at Madison, North Dakota State University, Georgia Institute of Technology, and the University of Tennessee at Knoxville. (Awarded June 2004.)

- Texas A&M University has been awarded $18 million over three years for the National Center for Foreign Animal and Zoonotic Disease Defense. Texas A&M University has assembled a team of experts from across the country, which includes major partnerships with the University of Texas Medical Branch, University of California at Davis, and the University of Southern California. Texas A&M University’s DHS Center will work closely with partners in academia, industry and government to address potential threats to animal agriculture including Foot and Mouth Disease, Rift Valley Fever, Avian Influenza and Brucellosis. Their research on Foot and Mouth Disease will be carried out in close collaboration with Homeland Security’s Plum Island Animal Disease Center. (Awarded August 2004)

- The University of Maryland and its partners have been selected for the Homeland Security National Center for the Study of Terrorism and Responses to Terrorism
(START) and following grant negotiations will receive $12 million over three years. START will focus on what moves individuals, small groups and social movements to undertake terrorism as a strategy and the dynamics of terrorist groups, including in-group competition for leadership and inter-group competition for support of terrorist sympathizers. Studies will also be carried out on societal responses to actual or possible attacks. The University of Maryland team includes partnerships with the University of California at Los Angeles, University of Colorado at Boulder, Monterey Institute of International Studies, University of Pennsylvania, and the University of South Carolina. (Announced January 2005)

- Proposals are currently being evaluated for the fifth center, Center for the Study of High Consequence Event Preparedness and Response. This Center will conduct research and education in preparedness, with special emphasis on acts of terrorism. Topics for two additional Centers of Excellence are being evaluated.

Cooperative Centers

To maximize interaction with other Federal agencies, University Programs and the Environmental Protection Agency’s Science to Achieve Results (STAR) Program released a joint Broad Agency Announcement to request proposals in the areas of microbial risk assessment. The Cooperative Center is jointly funded by DHS and EPA; as planned the total grant award is $10 million allocated over five years. Proposals are currently under review.

Homeland Security Scholars and Fellows Program

Scholars and Fellows Program goal is to enhance homeland security-related science and technology with a next generation of scientists and engineers who are adaptable, innovative thinkers and creative problem solvers. Designed to provide educational support and relevant experiential learning opportunities to diverse and highly talented individuals, DHS is investing in the next generation of U.S. citizen scientists and in the development of the university-based research committed to fulfilling the DHS mission to deter, detect, and respond to terrorist threats.

Participants gain opportunities by:
- continuing their education and research training in areas that support the DHS mission;
- becoming more familiar with the research and technology areas of importance to DHS; and
- conducting research and technology development in fields related to the DHS mission.

The Scholars and Fellows Program consists of a number of educational opportunities: Scholarship and Fellowship Program, American Association for the Advancement of Science, a Postdoctoral Program and a Pilot Summer Faculty and Student Team Program.

Scholarship and Fellowship Program

The Scholarship and Fellowship Program provides scholarships for undergraduate and fellowships for graduate students pursuing degrees in mission-relevant fields. Undergraduate
Scholars receive tuition and fees plus a monthly stipend for nine months; Graduate Fellows also receive tuition and fees, and a 12-month stipend. Students receive professional mentoring and complete a summer internship to connect academic interests with homeland security initiatives.

During the last two years the program included more than 200 Scholars and Fellows. In September 2003, the first class consisted of 50 scholars and 51 fellows at 70 institutions who completed summer internships at 22 research sites. In September 2004 the second class consisted of 57 scholars and 48 Fellows at 67 institutions. The combined classes of current scholars and fellows includes 82 scholars and 92 fellows (total of 174) at 93 institutions (including minority institutions) in 38 states and the District of Columbia*.

Success of the Scholarship and Fellowship Program is demonstrated by the results of the first class. From the 2003-2004 class, DHS has sustained nearly 50 percent of the graduating scholars as DHS graduate fellows.

**American Association for the Advancement of Science**

DHS contributes to one of the ten American Association for the Advancement of Science (AAAS) science and technology policy fellowship programs. AAAS provides the opportunity for accomplished and societally aware scientists and engineers to participate in and contribute to the public policy making process of the Federal government. During a one year experience, AAAS fellows are involved in the shaping of science and technology policy at the Department of Homeland Security and contribute to their scientific and technical expertise and external perspectives to Federal decision-making while learning how the Federal government works. Of particular interest to AAAS fellows is that DHS offers a unique exposure to multidisciplinary and interdisciplinary approaches to countering terrorism. During 2003-2004, two AAAS fellows contributed to the Biological Countermeasures Portfolio. One of the fellows is now employed by DHS. Currently, four AAAS fellows are assigned to the TVTA, EP&R, BTS, and CIP Portfolios.

**Postdoctoral Program**

The program is designed to provide awards to postdoctoral scientists and engineers who have held their doctoral degree for less than five years and are of exceptional ability and promise or proven achievement. Successful applicants are given the opportunity to use their intellect and talents to advance the research in critical areas of importance to DHS research interests and mission of DHS at DHS Lab, National Labs and within the DHS Centers of Excellence. The competition for the ten postdoctoral research opportunities will begin in May 2005.

**Pilot Summer Faculty and Student Team Program**

The 2005 Pilot Summer Faculty and Student Team Program provides a mechanism to purposefully engage faculty and students from Minority Institutions in DHS science and engineering research to increase collaborative opportunities and foster long-term relationships. The program will provide approximately ten Faculty/Student Teams with a ten to twelve week
research experience at one of the DHS Centers of Excellence or one of their major partners. Research opportunities will occur between May and August 2005.

* Demographics on current 174 scholars and fellows: 93 male (45 scholars and 58 fellows) and 81 female (37 scholars and 44 fellows); 18 computer science and information (7 scholars and 11 fellows); 63 engineering (34 scholars and 29 fellows); 32 life sciences (15 scholars and 17 fellows), 34 physical sciences and math (12 scholars and 22 fellows), and 27 social sciences (14 scholars and 13 fellows); 20 percent of the 174 scholars and fellows are from underrepresented minorities