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Homeland Security Extramural R&D Funding Opportunities in Federal Agencies

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Summary

This inventory identifies and lists websites for major federal agency homeland security programs that provide funding opportunities for extramural researchers to conduct research and development (R&D) for the government. Two tables are given, one on R&D in the Department of Homeland Security, and the second on homeland security R&D in other federal agencies. This report is not a complete list of all federal homeland security R&D programs. It will be updated as needed.

Homeland security-related research and development (R&D) programs are conducted and supported by the Department of Homeland Security (DHS); other federal agencies, including the Departments of Agriculture, Commerce, Defense, Energy, Health and Human Services, Justice, and Transportation; and independent agencies, such as the Environmental Protection Agency and the National Science Foundation. DHS requested about $1 billion for FY2004 for these programs, while the request for counterterrorism R&D funding in other agencies, which includes homeland security R&D, totals about $2 billion. Many federal R&D programs provide extramural funding opportunities for all types of performers — academic, industrial, and government laboratories — and use contracts or grants, as appropriate. Some programs are managed by offices dedicated specifically to supporting homeland security R&D. Others are funded through standard R&D support procedures. Some of the programs listed below for federally funded, contractor-operated laboratories, that are sponsored by the Departments of Defense or Energy, do not fund academic or industrial R&D performers directly but offer opportunities for them, with or without funding from the parent federal agency, to collaborate in laboratory research projects or to use laboratory facilities for their work.

The Office of Management and Budget's *Annual Report to Congress on Combating Terrorism*, June 2002, inventories federal government programs, including R&D, to combat terrorism. The FY2003 report is expected in September 2003. See [http://www.whitehouse.gov/omb/legislative/combating_terrorism06-2002.pdf] for the FY2002 report. The interagency National Coordination Office for Information Technology Research and Development (NCO/IT R&D) inventories federal agency

homeland security information technology R&D- related programs for the President's National Science and Technology Council,[http://www.hpcc.gov/]. For additional information on federal business opportunities, see CRS Report RL32036, *Homeland Security: Federal Assistance Funding and Business Opportunities*.

Table 1. Department of Homeland Security R&D Opportunities

Agency	Program	Source of Information
Homeland Security Advanced Research Projects Agency (HSARPA)	HSARPA will be the primary source of extramural R&D funding in the Science and Technology Directorate.	http://www.dhs.gov/dhspublic/display?theme=27&content=47
Office of University Programs, Homeland Security Centers of Excellence	DHS plans to establish several university centers by the end of 2004 through a competitive process.	http://www.dhs.gov/dhspublic/interapp/press_release/press_release_0220.xml
Technical Support Working Group (TSWG) Broad Area Announcements	DHS uses TSWG to identify and select technologies for rapid proto-typing under periodic broad area announcements (BAA).	http://www.tswg.gov/tswg/home/home.htm
Science and Technology Directorate Unsolicited R&D Proposals	These proposals are handled by TSWG; see link for specific information.	http://www.dhs.gov/interweb/assetlibrary/dhs_website_unsolprop.doc
U.S. Coast Guard Research and Development Center	Various RDT&E activities in support of Coast Guard homeland security and other missions.	http://www.rdc.uscg.gov/
Transportation Security Administration, including the Transportation Security Laboratory (TSL), located at the Federal Aviation Administration (FAA) site	Supports R&D activities to improve security technologies; includes the TSL's R&D on explosives and weapons detection; aircraft hardening; human factors; and airport security technology integration. Partners include academia, industrial, and government laboratories.	http://www.tsa.gov/public/theme_home3.jsp http://www.tc.faa.gov/tsl/

Source: some parts of the table are based a table in CRS Report RL32036, *Homeland Security: Federal Assistance Funding and Business Opportunities*

Table 2. Selected List of Other Major Federal Agency Homeland Security R&D Programs and Opportunities

Agency	Program	Source of Information
Department of Agriculture (USDA)		
USDA Homeland Security activities	USDA's Homeland Security Council's R&D activities focus on food supply and agricultural production.	http://www.usda.gov/homelandsecurity/homeland.html

The Agricultural Research Service (ARS) [conducts some homeland security research both separately and in cooperation with the Animal and Plant Health Inspection Service (APHIS), parts of which were moved to the Department of Homeland Security (DHS)]	Supports three multimillion dollar homeland security collaborative projects, scheduled to finish in 2005, that involve university, industrial and other extramural research performers:
	— Development and Validation of Rapid Diagnostic Tests for Avian Influenza and Newcastle Disease;
	— Development of a Pathogen Sequence Database;
	— Development of Rapid Real Time PCR-Based Assays for Selected ...Class A Diseases.
		http://www.ars.usda.gov/Business/Business.htm, or mruff@ars.usda.gov. to obtain the FY2004 R&D opportunities lists.
		
		http://www.ars.usda.gov/research/projects/projects.htm?ACCN_NO=405127;
		http://www.ars.usda.gov/research/projects/projects.htm?ACCN_NO=405364;
		http://www.ars.usda.gov/research/projects/projects.htm?ACCN_NO=405692

Department of Commerce		
National Institute of Standards and Technology (NIST)	Grants and awards support some extramural R&D on a competitive basis. Programs include: — buildings, structural and fire safety standards; — materials for structures; — cybersecurity standards and technologies; — threat detection and protection; — tools for law enforcement; — emergency response.	http://www.nist.gov/public_affairs/factsheet/homeland.htm#tools or http://www.bfrl.nist.gov/goals_programs/HS_goal.htm For NIST grants programs, contact Joyce Brigham, (301) 975-6329. NIST's Computer Security Division and Security Technology Group also supports collaborative research: http://csrc.nist.gov/ .
NIST Small Business Innovation Research (SBIR) Homeland Security Program	The FY2003 solicitation focused on: spectrometers; field detectors for radiological measurements; sensors; biological and chemical warfare agent identification; and software for calibrations and measurements.	The FY2003 solicitation is at: http://patapsco.nist.gov/ts_sbir/fy03.pdf. The FY2004 solicitation will be released in Oct. 2003. General information is available at: (301) 975-3085 or sbir@nist.gov
Department of Defense (DOD)		
Department of Defense (DOD), Office of Defense Research and Engineering	Gateway to descriptions of DOD agencies/programs that support homeland security-related R&D and related opportunities.	http://www.defenselink.mil/ddre/opportunities/opportunities.htm

Agency	Program	Source of Information
U.S. Army, National Protection Center (NPC)	With other federal agencies, sponsors RDT&E for advanced/multi-threat protective clothing and equipment for military and civilians in high risk occupations or in missions in extreme environments.	http://www.natick.army.mil/soldier/NPC
U.S. Army Medical Research and Materiel Command (USAMRMC)	Supports intramural and extramural R&D in at least two laboratories with homeland security-relevant activities. They are: USAMRICD and USAMRIID. (See cells below.)	http://chemdef.apgea.army.mil or http://mrmc.detrick.army.mil/index.asp?EntryURL=/mrdlabs.asp (also, see section on submitting a research proposal)
U.S. Army, Medical Institute of Chemical Defense (USAMRICD)	R&D to develop medical countermeasures to chemical warfare agents and training medical personnel to manage chemical casualties.	http://chemdef.apgea.army.mil or http://mrmc.detrick.army.mil/index.asp?EntryURL=/mrdlabs.asp
U.S. Army, Medical Research Institute of Infectious Diseases (USAMRIID)	R&D to develop strategies, products, and procedures for medical defense against biological warfare threats and naturally occurring infectious diseases that require containment.	http://www.usamriid.army.mil/
Center for Commercialization of Advanced Technology	A partnership of academia, government, and industry in San Diego and other parts of California that supports innovative technologies related to defense and homeland security in areas such as explosive detection, chemical and biological detection, border-intrusion sensors, encryption recording devices, and language translation.	http://ccatsandiego.org/index.shtml There is a solicitation dated July 2003 (with applications due by Sept. 9 2003); another solicitation is scheduled for Oct. 2003.
Defense Advanced Research Projects Agency (DARPA)	Supports basic and applied projects where risk and payoff are both high and where success may provide dramatic advances.	Information about funding programs is at: http://www.darpa.mil/baa/#dso; Information about awards processing is at:http://www.darpa.mil/cmo/
Department of Energy		
National Nuclear Security Administration (NNSA), (a semi-autonomous Dept. of Energy agency).	R&D supported in NNSA's affiliated laboratories and by extramural performers relates to reducing threats to national security and world peace posed by nuclear, chemical, and biological weapons proliferation	For a description of NNSA, see, http://www.doe.gov/engine/content.do?BT_CODE=OF_NNSA; For research opportunities, see, http://e-center.doe.gov/doebiz.nsf/MAiips?OpenForm

Agency	Program	Source of Information
Dept. of Energy, Office of Science	Various R&D programs relevant to counterterrorism or homeland security, but there is no funding designated specifically for homeland security R&D.	http://www.sc.doe.gov/grants/grants.html or http://www.osti.gov ; for specific information, go to http://www.osti.gov/cgi-bin/texis/webinator/schpsearch/?query=terror&db=schpdb&cmd=context&id=c01030ba808862c9#hit.; or walter.stevens@science.doe.gov
Dept. of Energy, Los Alamos Laboratory	The Center for Homeland Security provides collaborative opportunities for its programs in chemical and biological weapons, radiological and nuclear threats, and threats to critical infrastructure.	http://www.lanl.gov/orgs/chs/ or twmeyer@lanl.gov.
Dept. of Energy, Lawrence Livermore National Laboratory Homeland Security Organization	Provides opportunities for collaboration to extramural researchers relating to its R&D to develop capabilities to detect, interdict, and defend against catastrophic weapons and other threats; some programs mirror the research programs set by DHS; also funds the Nuclear Emergency Search Team.	http://www.llnl.gov/hso/about.html or for information on partnerships and opportunities, hso@llnl.gov.
Dept. of Energy, Sandia National Laboratory	Provides opportunities for collaborative partnerships between its homeland security unit and academic, industrial and other laboratory performers for R&D on threat and vulnerability assessment; physical security; nuclear material identification; and chemical and biological weapons detection.	http://www.sandia.gov/capabilities/homeland-security/index.html or tallard@sandia.gov
Department of Health and Human Services (DHHS)		
Centers for Disease Control and Prevention (CDC)	Supports R&D on bioterrorism, infectious agents, laboratory security.	For grants and contracts: http://www.cdc.gov/funding.htm
Food and Drug Administration (FDA)	Supports R&D on food security and related issues.	For grants and contracts: http://www.fda.gov/oc/ofacs/grants/
National Institutes of Health (NIH)'s programs include Biodefense Research at the National Institute of Allergy and Infectious Diseases (NIAID)	R&D on agents of bioterrorism, including viruses that cause smallpox and hemorrhagic fevers; bacteria that cause anthrax, plague, and botulism; and tularemia; focuses on basic biology, immunology, vaccines, drugs, diagnostics.	http://www.niaid.nih.gov/biodefense/about/niaids_role.htm For current funding opportunities, see http://www.niaid.nih.gov/biodefense/research/default.htm

Agency	Program	Source of Information
Department of Justice		
National Institute of Justice (NIJ) Technology Program	Technology research, development, and assessment to improve public safety, including programs for homeland security R&D.	http://www.ojp.gov/nij/sciencetech/highlights.htm or http://www.ojp.usdoj.gov/nij/sciencetech/projects.htm
Department of Transportation		
Dept. of Transportation	— Research and Special Programs R&D activities in pipeline safety and other areas of homeland security; — Volpe Center homeland security activities in transportation/logistics; — Additional security-related R&D procurement information for DOT agencies is available.	http://www.rspa.dot.gov/contracts.html; http://www.volpe.dot.gov/procure/current.html#rfp; http://www.dot.gov/DOTagencies.htm, or http://www/dot.gov/PerfPlan2004/homelandperf.html.
Independent Agencies		
Environmental Protection Agency (EPA) Homeland Security Research Center	Uses intramural and extramural performers for R&D and technical assistance on buildings, water, and rapid risk assessment;collaborates in homeland security research authorized by memoranda (MOUs) between the Air Force Research Laboratory at Wright-Patterson Air Force Base, the FDA, and the Dept. of Energy.	http://www.epa.gov/ordnhsrc/ or avel.andy@epa.gov or Schultz.Patricia@epa.gov@epa.gov.
National Science Foundation (NSF) Homeland Security activities	Supports research on: data mining; the National Hazards Center; ecology of infectious diseases with NIH and a separate microbial genome sequencing program to understand bioterrorism; and security-related information technology and critical infrastructure protection R&D. Has a scholarship program to train students in information security; and, with the intelligence community, supports a national security program in mathematical and physical sciences.	http://www.nsf.gov/od/lpa/news/media/01/nsf_response.htm#grants or http://www.nsf.gov/od/lpa/news/media/01/nsf_response_awards.htm or www.nsf. gov For Program Solicitation NSF 03-569, see: http://www.nsf.gov/pubs/2003/nsf03569/nsf03569.htm
NSF SBIR Program	Small business innovation research support for homeland security.	http://www.eng.nsf.gov/sbir/homeland.htm