Partnering to Ensure Public Safety

Our VISION is for the forensic science community and its users to have complete confidence in the quality of forensic science services provided to the justice community.
Our MISSION is that we are dedicated to assisting the forensic sciences in the achievement of the highest level of quality services for the justice community.

About the NFSTC

National Forensic Science Technology Center

Science Serving Justice

- Established in 1995 as a not-for-profit corporation by the American Society of Crime Laboratory Directors (ASCLD)
- Provides goods and services at no-cost to the forensic science and justice communities through Training, Technical Assistance, and Community Outreach
- Funded through Cooperative Agreements with the National Institute of Justice (NIJ), Office of Justice Programs (OJP)
- Functions as a membership corporation; members elect the NFSTC Board of Directors
- Current members: American Academy of Forensic Science, American Board of Criminalists, Association of Forensic Quality Assurance Managers, ASCLD, ASCLD/LAB®, Bureau of Alcohol, Tobacco, Firearms, and Explosives, Drug Enforcement Administration, Florida International University, International Association for Identification, Southeastern Public Safety Institute of St. Petersburg College, University of Central Florida, and University of South Florida
- Employs between 25 and 30 permanent full time staff and a complement of approximately 140 private consultants that supplement the workforce

Community Outreach

NFSTC community outreach efforts build awareness of the no-cost programs available to the forensic science, law enforcement, and justice communities.

This is accomplished through a threefold approach:

- **Inform** forensic science service delivery agencies about NFSTC programs through participation in events, conferences, and focus groups, with numerous organizations including ASCLD, AFQAM, IACP, NIJ, AAFS, IAI, Promega, AFTE, ABC, as well as Regional Forensic Associations
- **Gain** input from the forensic science and law enforcement communities to assist in targeting our programs and services to their needs. Justice community focus groups comprised of external stakeholders are a key element in program development. Feedback is requested to assist in assessing program quality and effectiveness.
- **Support** other organizations who support forensic science service delivery. The NFSTC hosts justice system related events at our Largo, FL facilities. These include meeting and training rooms as well as laboratory facilities and instrumentation.

Visit the NFSTC Website for Program Updates: www.NFSTC.org

National Missing and Unidentified Persons System (NamUs)

- Motivated by an overwhelming need for a central reporting system for unidentified remains cases
- Funded by the NIJ for the development and management of a national repository for information on unidentified remains, missing persons, and related national and state resources
- Intended to provide the nation's medical examiners, coroners, victim advocates, law enforcement agencies, missing person clearinghouses, and the general public with access to both the Unidentified Decedent database (currently accessible at: www.namus.gov and the Missing Persons Database
- Designed to ultimately search online simultaneously for links between the records of missing persons and unidentified human remains in an effort to solve cases
- Planned to allow the entry of database search and match criteria (e.g., demographics, anthropologic assessments, dental information, distinct body features)

President's DNA Initiative—DNA Analyst Training

- Developed under the President's DNA Initiative (PDI), DNA Analyst Training Program provides a technology-based training (TBT) resource to assist publicly funded crime laboratories in conducting forensic DNA analyst training
- Self-paced multimedia content uses the experience and academic foundation of previous on-site DNA academies delivered by the NFSTC
- Consists of nine major subject areas comprised of thirty-two modular units of instruction. Pending review by the NIJ, the content will be released sequentially by subject area on www.dna.gov
- Theoretical and workshop content were combined to produce three Population Genetics and Statistics podcast deliverables
- In support of the PDI-Analyst Training program, the NFSTC has offered six types of workshops:
  - Population Genetics and Statistics
  - DNA Validation
  - GeneMapper™*ID*
  - Mitochondrial DNA
  - Quantitative PCR (qPCR)
  - Biological Screening of Evidence Samples
- With additional workshops being delivered in 2007, including:
  - Biological Screening of Evidence Samples
  - DNA Extraction
  - DNA Amplification

PRESIDENT'S DNA INITIATIVE

DNA Resource Center: www.dna.gov

The NFSTC provides support to the NIJ and the Department of Justice with the development of DNA related resources and materials to populate the dna.gov website.

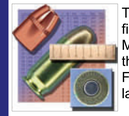
Principles of Forensic DNA for Officers of the Court (http://www.dna.gov/training)

- Educational and resource tool to empower officers of the court (attorneys and the judiciary) with the knowledge to effectively use forensic DNA evidence as a crime fighting tool
- Spanish version of Officers of the Court is under development and planned for release in 2007

What Every Law Enforcement Officer Should Know About DNA Evidence

- Best practice guide migrated by the NFSTC from a CD-ROM to a web-based resource guide for the identification, preservation, and collection of DNA evidence at the crime scene. http://www.dna.gov/training

Firearms Analyst Training



The forensic community has identified a pending shortage of qualified firearms examiners. Working with the Association of Firearm and Tool Marks Examiner (AFTE), subject matter experts and firearms examiners, the NFSTC is developing a training program for newly hired and current Firearms Examiners. The CD-ROM will be provided at no-cost to forensic laboratories involved in firearms identification.

- Formatted in technology based training (TBT) with a practical training guide to lead trainees through exercises for the development of the skills and abilities for each task
- Modular self-paced units of instruction supplemented with photographs, graphics, animations, and other multi-media tools to enhance learning and hold the attention of the trainee
- Reviewed extensively by a panel of experts appointed by AFTE
- Easily transformed for independent use in other environments, such as crime scene training and continuing education for existing firearms examiners
- Expected completion planned for December 31st, 2007

Assessments

- Provided free external DNA audits to government laboratories since 2002
- Conducted external DNA audits using the "Quality Assurance Audit for Forensic DNA and Convicted Offender DNA Databasing Laboratories" checklist approved by the National DNA Index System (NDIS)
- Expanded by the NIJ in January 2005 to include a Grant Progress Assessment (GPA) program
- Scope further expanded in 2006 to include the review of Coverdell and Cold Case grants
- From the program's inception through July 2007, the NFSTC has completed 359 external DNA audits and a total of 373 Grant Progress Assessments have been performed
- In 2006, the NFSTC conducted a total of 277 assessments, which includes both DNA audits and GPA assessments
  - Assessors committed over 1470 work days and visited 183 different locations, generating approximately 540 individual audit/assessment reports
  - Personnel resources were increased by adding 30 assessors and additional contract staff resources to assist in the management of the program

Technology Transition Workshops

- Designed to facilitate the transfer of five emerging technologies with forensic applications from researcher to practitioner for twelve analysts in two-day session
  - Liquid Chromatography Tandem Mass Spectrometry (LC\MS\MS)
  - Cedar Fox Questioned Documents
  - Laser Microdissection (for analysts and laboratory managers)
  - Methamphetamine Analysis Using Capillary Electrophoresis
  - Polynomial Texture Mapping
- Includes theoretical lectures, demonstrations, practical exercises, and data interpretation, as applicable
- Evaluated for overall training effectiveness and laboratory plans for implementation of the technology
- Electronically captured and made available at no-cost via online delivery (www.nfstc.org) as early as September 30th, 2007

Deployable Forensic Laboratory

During the summer of 2006, the NFSTC began a partnership with the Department of Defense (DOD) and the Defense Threat Reduction Agency (DTRA) to develop a readily deployable forensic laboratory. The NFSTC is providing design development for various forensic applications as well as training services to be delivered through streaming media technology. The delivery of the first phase of this project is targeted for the end of 2007.

- Adapted from a similar laboratory structure employed to support the global war on terrorism in Iraq and Afghanistan
- Designed to expand the availability and portability of forensic analysis capabilities in the United States and internationally
- Consists of four connected shelters within a certified ISO container that can be equipped to house conventional forensic applications (e.g., DNA analysis, firearms examination, drug toxicology, and serology)
- Includes one shelter for administration/communications

This deployable forensic laboratory could provide rapid response to an urgent need by:

- Providing an at-the-ready setup used to expand the capabilities of the warfighter in gathering forensic intelligence
- Responding to a natural disaster or an accidental incident and as a force multiplier to support existing forensic operations (e.g., in the aftermath of a natural disaster where a state or local forensic laboratory could no longer provide services)
- Supplementing a functional laboratory in an effort to reduce case backlogs

Field Investigation Drug Officer (FIDO)

- Affords certified law enforcement officers the capability of providing a preliminary identification of the most commonly encountered drugs of abuse.
- Provides immediate investigative information without the need for extensive laboratory analysis, as well as facilitation of case adjudication in the preliminary phase
- Includes a comprehensive training section, quality assurance guidelines, and established testing processes
- Reinforces confidence in field testing results at a consensus level for prosecutors and the courts.
- Offers the potential for expansion to include pilot testing and evaluation of new field testing technologies
- Piloted at three police agency test sites in Oregon, Pennsylvania, and Utah
- Statistical data will be captured and each site will evaluate the implementation of the program within their jurisdiction for successes and failures

E-Crime Awareness Tools Project

- Participation in Electronic Crime Partnership Initiative (ECPI) working group meetings to support NIJ E-Crime program objectives
- Build E-Crime community awareness and outreach efforts
- Attend and support for NIJ E-Crime program review meetings
- Support the analysis, design, and development of NIJ's *Electronic Crime Scene Investigation*: *A Guide for First Responders* publication and training
- Ongoing technology support for NIJ and ECPI E-Crime awareness efforts and symposiums
- Increase in NIJ funding for the development of additional awareness tools and a one-day course in support of the release of the updated *Electronic Crime Scene Guide*

http://www.ojp.usdoj.gov/nij/topics/ecrime/welcome.html
www.ojp.usdoj.gov/nij/topics/ecrime/ecpi.htm

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