

The National Forensic Science Technology Center: Science Serving Justice

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FROM TECHNOLOGY TO TRAINING – THE HISTORY OF NFSTC

The National Forensic Science Technology Center (NFSTC) is a not-for-profit corporation set up by the American Society of Crime Laboratory Directors (ASCLD) in 1995. The incorporation of NFSTC was triggered by an approach from the Largo, Florida, plant of Lockheed Martin Corporation. The Largo plant was seeking partnership with NFSTC to assist its transition from nuclear weapons technology to the development of peacetime applications. The original goal was a Research and Development facility using the high-technology equipment that existed in the Lockheed plant. It was envisaged that the NFSTC would provide contract research and casework on a commercial basis. However, in October of that same year, Lockheed Martin decided to close the plant, and NFSTC had to review its strategic plan.

Following the withdrawal of Lockheed, the strategic planning direction turned to other areas of need in the forensic sciences. The publicity that surrounded the O. J. Simpson case highlighted the shortage of support in training and quality systems. NFSTC therefore has focused its business activities on accreditation, education and training.

By the time of the October 1995 decision, the University of Central Florida (UCF), the University of South Florida and the Public Safety campus of the St. Petersburg Junior College (SPJC) had all expressed a desire to support the venture. With seed funds from the universities and accommodation at the SPJC, NFSTC opened for business on July 1, 1996.

A strategic plan was developed identifying a mission of “assisting forensic science laboratories achieve the highest standards of operation.” There are three priority areas to achieve this mission: training, education and quality systems support.

The response has vindicated that vision. NFSTC operates on a commercial basis with no soft money grants to underpin it. It has benefited from its customer focus and is on track for a turnover of \$400,000 in its second full year of operations. Since it is a not-for-profit corporation, the margins on that turnover are kept to the minimum needed to meet operating costs. Customers are thus receiving and appreciating a value-for-money service. Customer feedback on our services has been very positive.

TRAINING AT NFSTC

Training is an essential part of our quality initiative. We have conducted classes at our base in St. Petersburg, Florida, and in California, Colorado, Louisiana, New York, Ohio, Ontario, Oregon and Miami, Florida. Topics covered in the courses range from DNA statistics to fire debris analysis.

More recently, we have adapted workshops for World Wide Web access and have just completed a set of instructional classes for the American Board of Criminalists (ABC) Certification.

GRADUATE PROGRAM FOR DNA SUPERVISORS

In 1996-1997, NFSTC responded to the DNA Advisory Board's (DAB) proposal that DNA supervisors should have a graduate degree. NFSTC, in conjunction with UCF (one of our academic partners), developed a Master's degree program for those working in crime laboratories.

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The resulting degree program was launched in January, 1998. It is a 30 semester-hour (shr) Master of Science with 12shr of forensic DNA topics, 12shr of general advanced science and a 6shr (approximately 120 contact hours) research project. Classes are conducted over the Internet, and the first course on bioinformatics and quality assurance is almost completed. Twelve "pioneer" students from Arizona to Virginia are ready to complete these courses and have favorable comments about this program. The consensus opinion is that the program is more challenging than and superior to our original goal.

QUALITY SYSTEMS SUPPORT

Accreditation is now an accepted part of operating as a crime laboratory. There has been a particular emphasis in the DNA area, as the DAB has set standards and requires proof of compliance with those standards.

Crime laboratory accreditation is achieved through the ASCLD/Laboratory Accreditation Board (ASCLD/LAB) program. This program is a demanding undertaking, and NFSTC has supported its successful implementation by providing preaccreditation audits to laboratories preparing for accreditation. ASCLD/LAB is a "one-in, all-in" program. That is, a laboratory cannot elect to leave out disciplines covered by the program in its accreditation.

The DAB has set Quality Assurance Standards for Forensic DNA Testing Laboratories. These standards apply to DNA sections of crime laboratories, to private DNA forensic laboratories and to laboratories seeking to perform DNA analysis for databasing (CODIS) work. The standards include a provision that laboratories subcontracting DNA work must ensure that the subcontractor also meets the DAB standards. The ASCLD/LAB Crime Laboratory accreditation program has been accepted by the DAB as sufficient, objective evidence that a laboratory meets its standards.

NFSTC has a Memorandum of Understanding with ASCLD/LAB to audit DNA sections of crime laboratories where the overall facility is not yet ready for accreditation and to grant a certificate of compliance with DAB and ASCLD/LAB standards where warranted. NFSTC provides the same service to private laboratories. The DAB has accepted the validity of this certification.

For a typical DNA laboratory, the process involves a two-day audit of policies, practices and procedures against the DAB standards. All the standards are covered, but particular attention is paid to the following. Documentation of technical standard operating procedures (SOPs) and validation studies are reviewed, as are proficiency tests and calibration, training and education records. Policy and practice on evidence security is scrutinized in detail, as is the way that PCR testing is performed. The assessors are drawn from a pool trained as ASCLD/LAB inspectors and/or successful graduates of the NFSTC laboratory auditing class.

The certificate states that the laboratory has been audited and found to comply with the requirements of the Technical Working Group on DNA Analysis Methods (TWG-DAM), DAB and the relevant provisions of the ASCLD/LAB, or, in the case of a databasing laboratory, that it complies with the requirements of the draft DAB standards for CODIS laboratories. The certification is good for two years and requires an internal audit after the first year. The certification audit itself qualifies as an external audit, as required by the DAB standards.

The certification is recognized by contractors. For example, the Virginia Division of Forensic Science Request for Proposals (RFP) for CODIS work specifically mentions that respondents are required to be accredited by ASCLD/LAB or NFSTC.

It has been our experience that customer laboratories are varied in their wishes for publicity. For this reason, we no longer list certified laboratories publicly but are happy to provide contact points in reference sites to genuine inquirers. NFSTC has audited nine private DNA laboratories for certification of compliance.

CONTINUING FORENSIC EDUCATION UNITS

Forensic science has lagged in formal continuing education schemes. Certification has only recently become recognized. Although continuing education is required by the ASCLD/LAB, there is no supporting system for that accreditation board to reference. NFSTC has implemented a plan in which one continuing forensic education unit is equivalent to half of a college class. To obtain credit, the course must show it is of the required academic standard (curriculum, instructors and facilities) and have some form of testing of students to show that they learned from the program. The NFSTC plan is available to any course provider.

The Promega STR Workshops are in the leading group to be approved under the scheme.

For more information, visit our web site at www.nfstc.org or contact us at:

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