“Leading the Way in Forensic DNA…”
Through Partnering with the Justice Department in Support of Law Enforcement and Forensic DNA Testing

Funding from interagency agreement 2003-IJ-R-029 between NIJ and the NIST Office of Law Enforcement Standards

**Standards**

**Standard Reference Materials**
- Traceable standards to ensure accurate measurements in our nation’s crime laboratories
- Helps meet DAB Std 9.5 and ISO 17025

**Training Information & Materials**
- [http://www.cstl.nist.gov/biotech/strbase/training.htm](http://www.cstl.nist.gov/biotech/strbase/training.htm)
- Leading text book (now in 2nd edition)
- Downloadable PowerPoint files
- Review articles on CE and STRs
- Validation resources

**2005-2006 Training Classes:**
- AAFS, NERFI, MAAFS, NEAFS, ANZFSS, NFSTC, MN BCA, NYC OCMU, ABI HID University

**Information Resource**
- Includes information on:
  - Core STR loci
  - Validation
  - STR reference list
  - NIST publications
  - miniSTRs
  - Forensic SNPs
  - Variant STR alleles
  - Population data resources
  - Addresses of scientists

**Support to the Community**
- Interlaboratory studies
- Beta-testing of new human identity testing products
- Scientific Working Group on DNA Analysis Methods (SWGDM)
- American Prosecutors’ Research Institute (APRI)
- DNA Forensics Program “Course-in-a-Box”
- WTC Kinship and Data Analysis Panel (KADAP) and 2005 Hurricane Victim DNA Identification Expert Group (HVDieG)
- Attorney General’s Initiative on DNA Laboratory Backlogs Working Group (AGID-LAB)
- Membership on the DNA Advisory Board and the National Commission on the Future of DNA Evidence
- NIJ Expert System Testbed (NEST) Project

**Past and Present Collaborators**
- [NIJ-Funded Collaborators](http://www.cstl.nist.gov/biotech/strbase/)

**Technology**

**New DNA Tests and Markers**
- We Welcome Additional Collaboration That Will Benefit the Field...

**Past and Present Projects**
- ABI 3100 performance with various STR typing systems
- ABI 3130xl upgrade evaluation
- Allele frequencies and genetic variation in U.S. populations
- AutoDimer: software developed to enable rapid multiplex PCR design
- Autosomal SNP loci
- Calibration data sets for expert systems
- Cat STR assay: development of the “MeowPlex”
- Determination of mtDNA/ndNA copy number
- DNA quantitation methods: evaluation and comparison
- DNA recovery from aged bloodstains on untreated filter paper
- DNA recovery from bloodstains on various filter papers
- DNA recovery from various tubes
- DNA stability studies
- FSS-3 expert system software evaluation
- Interlaboratory studies: NIST Mixed Stain Study #1 & #2
- Interlaboratory studies: NIST Mixed Stain Study #3
- Interlaboratory studies: DNA quantitation (QS04)
- Interlaboratory studies: STR mixture interpretation (MX05)
- Literature collection on topics related to forensic DNA typing
- Locus-specific markers (LSBs) for Y-STR typing
- Luminex system for Y-SNP typing
- minISTR assays for recovery of information from degraded DNA
- minISTR NC loci: beyond the CODIS core STR loci
- Mitochondrial DNA: LINEAR ARRAY evaluation
- Mitochondrial DNA: coding region SNP assay development
- Mitochondrial DNA: Affymicro MitoChip evaluation
- Multiplex PCR assay development
- MULTIPLEX, QA: development of data quality assessment software
- Nuclear DNA from hair shafts
- Quality control methods for PCR primers
- SNP typing assays
- SNP website for possible forensic SNP loci
- SRM 2391, 2391a, 2391b: PCR-based DNA Profiling Standard
- SRM 2395: Human Y-Chromosome DNA Profiling Standard
- SRM 2372: Human DNA Quantitation Standard
- STRBase: a human identity testing community resource
- Support to NCBI OGSIIIS software development
- Training materials: STR typing using capillary electrophoresis
- Variant allele sequencing to determine basis for allele dropout
- Y-chromosome duplication characterization
- Y-SNP loci in U.S. populations
- Y-STR loci in U.S. populations
- Y-STR focus DYS434: examination of a multi-copy marker
- Y-STR megaplex assay development
- Y-STR mt evaluations

...Bringing traceability and technology to the scales of justice...