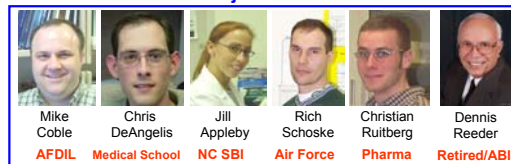




Former Project Team Members



National Institute of Standards and Technology - U.S. Department of Commerce



<http://www.ojp.usdoj.gov/nij>

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



<http://www.eeel.nist.gov/oles>

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

Standards

See also <http://www.dna.gov/research/nist>

Technology

Standard Reference Materials

http://www.cstl.nist.gov/biotech/strbase/srm_tab.htm

Traceable standards to ensure accurate measurements in our nation's crime laboratories



Helps meet DAB Std. 9.5 and ISO 17025



SRM 2391b – CODIS STRs
SRM 2392-I – mtDNA
SRM 2395 – Y-STRs
SRM 2372 – DNA quantitation

Training Information & Materials

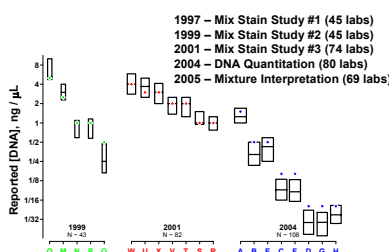
<http://www.cstl.nist.gov/biotech/strbase/training.htm>



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 OCME, ABI HID University

Interlaboratory Studies



New DNA Tests and Markers



New test developed to aid in identification of World Trade Center victims of 9/11/01 terrorist attacks

Past and Present Projects

Past and Present Collaborators

NIJ-Funded Collaborators:

Bruce McCord (OhioU/FIU) Tom Parsons (AFDIL)
Jim Girard (American U.) Marilyn Raymond (NCI)
Mike Hammer (U. Arizona) Sree Kanthaswamy (UC Davis)
Murray Brilliant (U. Arizona) Cecelia Crouse (PBSO)
Ken Kidd (Yale) Susan Greenspoon (VA DFS)
Steve Sherry (NCBI) John Planz (U. North Texas)

We Welcome Additional Collaboration That Will Benefit the Field...

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 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 (MIX05)
Literature collection on topics related to forensic DNA typing
Locus-specific brackets (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: Affymetrix MitoChip evaluation
Multiplex PCR assay development
MULTIPLY_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 OSIRIS software development
Training materials: STR typing using capillary electrophoresis
Validation resources and standardization
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 locus DYS464: examination of a multi-copy marker
Y-STR megaplex assay development
Y-STR kit evaluations

Information Resource

<http://www.cstl.nist.gov/biotech/strbase>



Includes information on:

Core STR loci
Validation
STR reference list
NIST publications
miniSTRs
Forensic SNPs
Variant STR alleles
Population data resources
Addresses of scientists

Provides up-to-date information and has been used in court cases to support application of DNA technology

Support to the Community

- Interlaboratory studies
- Beta-testing of new human identity testing products
- Scientific Working Group on DNA Analysis Methods (SWGDM)
- American Prosecutor's 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



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

