Accreditation of Rapid DNA Technology for Relationship Testing

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Rapid DNA Technology

• Purchased ANDE in June 2015
• Expedite the process of identifying human remains
Initial Discussions

• Accreditation with AABB for relationship testing
  – Specifically for cases that have family
  – Less than 100 cases per year
  – Develop a budget

• Support of Administration
  – Financial
  – Personnel
  – Time
  – Policy
AABB Standards

- Support from DHS S&T
- Review standards
- Submit variances in January 2017
- Develop timeframe with key deadlines
- Project plan detailing tasks
Project Plan

• Training
  – Journal Articles
  – Procedures
    • Collecting
    • Accessioning
    • Testing
    • Reviewing Data
    • Calculations
    • Reporting
  – Demonstrate competency
    • Sign off by Lab Director
Project Plan

• Validation
  – Tissue Samples
    • Buccal – over 100 swabs
    • Bone
    • Soft Tissue - muscle
    • FTA Cards – positive control and CAP proficiency tests
  – Send to AABB lab to demonstrate concordance
  – Reporting
    • 13 complete cases
      – Inclusion
      – Exclusion
      – Inconclusive
Project Plan

• Validation
  – Software Systems
    • OSIRIS – Open Source Independent Review and Interpretation System
    • KinCALc
    • Probability Worksheet
  – ANDE FlexPlex
    • Sample results demonstrating concordance
Challenges

- Changing to FlexPlex chemistry
  - Locating accredited lab that had similar chemistry
  - Alter bone processing procedure
- Different software systems
  - ANDE results
  - OSIRIS analysis
  - KinCALc input
- Technical Issues
  - Instrument and Chip