FTA® TECHNOLOGY – NEW ADVANCES FOR THE COLLECTION, SHIPMENT, ARCHIVING AND PROCESSING OF BIOLOGICAL SAMPLES FOR HUMAN IDENTIFICATION

Martin A Smith[1], Frank Igoe[1], Karen Pierce[1], Arthur. J. Eisenberg[2]
[1]Whatman Inc, Newton MA
[2]DNA Identity Lab, University of North Texas, Fort Worth TX

FTA® technology enables the room temperature collection and archiving of nucleic acid from a wide array of biological samples such as blood, buccal scrapes, cultured cells, solid tissue, plant material, plasmids, and microorganisms. DNA analysis on the archived sample can be performed days, months or even years later. Current stability studies have shown that samples stored on FTA in excess of 10 years, yield consistent reproducible results. The collection and storage capability of FTA is further enhanced by an extremely rapid nucleic acid procedure, producing template that is suitable for the generation of DNA profiles with the CODIS core STR loci. Recently we have demonstrated new FTA-based techniques for the sample collection and STR analysis of DNA from hair samples and illustrated utility of the FTA solid

phase card system for the generation of liquid DNA and compatibility with extraction systems such as DNA IQ™ (Promega). We will present the utility of FTA for the collection, storage, and analysis of nucleic acid for a variety of manual and high throughput human ID applications. We include a 96 well FTA format that generates eluted DNA from collected blood that is suitable for multiplex PCR using all the conventional systems available for human identification.