B63   *Biotracks* – Leveraging DNA Technology to Solve Lesser Offense Cases and Reduce Recidivism in Queens County, New York

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The objective of this presentation is to demonstrate the value of recognizing and collecting various types of biological evidence left at burglary scenes. By generating STR profiles from evidence such as perspiration, hair, and blood, and uploading them into local, state, and federal

DNA databases, the perpetrator(s) of a no-suspect case may be identified and links between otherwise unrelated burglaries may be established. By maximizing the potential and effectiveness of the DNA databases, this study demonstrates a means of identifying the recidivism rates of convicted offenders within a specific geographical region, as well as identifying any correlation between burglaries and more violent crimes such as sexual assault and homicide.

Research has shown that virtually all offenders begin their criminal careers early in life with lesser offenses. A 2002 study by the Bureau of Justice Statistics shows that burglars had one of the highest re-arrest rates at 70.4% as well as one of the highest recidivism rates for specialists i.e., prisoners who, after being charged with one type of crime, are likely to commit the same type of crime again. Considering that there are over 110,000 convicted offender DNA samples in the New York State database to date, the authors felt it was time to leverage this technology and focus on lesser offenses such as burglary in order to reduce their frequency and ultimately reduce the frequency of more violent crimes.

In order to ensure that the most probative items of biological evidence are collected and analyzed, it is essential to have a well-trained and informed evidence collection team. In addition to targeting conventional items such as cigarette butts, blood, soda cans, and hair, the burglary scene processors in Queens County, New York were trained to recognize and swab contact surfaces such as windows, knife handles, and door knobs which may contain trace amounts of biological material left behind by intruders. Instruction in the protection of these biological samples from contamination, loss, or deleterious change was a key aspect in the training.

This presentation will conclude by discussing which types of biological evidence and contact surfaces yielded the most informative STR profiles and how many profiles were developed from specific types of items. With this type of data, law enforcement will gain a better understanding of which items from a burglary scene are likely to yield probative profiles and how many samples need to be collected and analyzed. By obtaining STR profiles from biological evidence left at burglary scenes and utilizing the expanding DNA databases of convicted offenders, the rate of burglaries and more violent crimes can ultimately be reduced.

Burglary, DNA, Database