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ADVANCES IN FORENSIC SCIENCE AID LAW ENFORCEMENT INVESTIGATIONS

Project identifies more than 190 unknown persons through fingerprint analysis

WASHINGTON, DC – The Department of Justice's Office of Justice Programs (OJP) today announced the results of new research studies and methods to help improve forensic investigations and solve mysteries. These new techniques illustrate how government-funded efforts are increasing reliability, improving methods and technology, and providing foundational knowledge for the forensic science field to prosecute criminals and to bring closure to families.

"Forensic science is an indispensable tool for solving crimes, whether it does so by providing fingerprint and DNA matches or by connecting the dots through analysis of trace evidence such as glass, soil and fibers," said Howard Spivak, acting director of OJP's National Institute of Justice (NIJ). "This new research will help improve the objectivity of forensic techniques, ensure admissibility of forensic evidence in the courtroom and secure confidence in the outcome of criminal investigations."

A recent technology, known as Next Generation Identification, allows analysis of poor quality entries in the FBI's fingerprint database, enabling more focused searches of individual fingerprints and increasing the likelihood of identification, even with prints that have been searched many times in the past. Each year, about 1,000 people remain unidentified, contributing to uncertainty and anguish for thousands of loved ones. Through a partnership between NIJ and the FBI Laboratory, over 190 identifications have been made since March. Virginia native Andrea Kuiper, who disappeared 27 years ago, was identified last month as a woman who was struck and killed by a car in California in 1990.

Chemists, analysts, engineers, biologists, computer scientists, molecular geneticists and forensic anthropologists all played roles in designing and carrying out studies with funding from NIJ:

- North Carolina State University developed a system for extracting dyes from fabric obtained at crime scenes, shortening analysis in many cases to less than 10 minutes.
- University of California, San Diego devised a technique for creating lifestyle profiles of criminals based on skin contact with personal objects such as cell phones and car keys.
- Auburn University found a way to help forensic scientists more readily identify altered versions of certain illicit drugs that are created when clandestine laboratories manipulate the molecular structure of those drugs to keep them off the list of controlled substances, creating a challenge for criminal prosecutors.
- Lincoln Memorial University and the University of Tennessee created an index to assess error rates when attempting to identify human skeletal remains.

NIJ's support of research and development covers a wide range of forensic science disciplines. In an effort to meet the growing demands for improvements in evidence processing, NIJ partners with leading researchers from academia, the forensic science community and private institutions, discovering new and improved methods to detect and analyze evidence.

More information about the National Missing and Unidentified Persons System can be found at <u>www.namus.gov</u>, and additional information about the Federal Bureau of Investigation Latent Print Support Unit can be found online <u>here</u>.

Today's research reports are available online here.

Finally, more information about the National Institute of Justice is available at <u>www.nij.gov</u>.

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