Tuesday
JUNE 15

Poster Session Breakfast

NIJ Overview
■ Poster 1

NIJ Offices and Divisions
- Crime Control and Prevention Research Division — ■ Poster 2
- Forensic Science Training — ■ Poster 3
- Information and Sensor Technologies Division — ■ Poster 4
- International Center — ■ Poster 5
- Justice Systems Research Division — ■ Poster 6
- Office of Investigative and Forensic Sciences — ■ Poster 7
- Operational Technologies Division — ■ Poster 8
- Violence and Victimization Research Division — ■ Poster 9

National Missing and Unidentified Persons System (NamUs) — Rapid Growth and Success in Resolving Cases
■ Poster 10

NIJ's National Missing and Unidentified Persons System (NamUs) has shown significant growth since the missing persons database went online in January 2009. In its first year, missing persons records have more than doubled, and the system has gained acceptance by law enforcement in many jurisdictions as a viable and useful tool. Panelists will present results from a system growth analysis (i.e., the number of cases, registered users by category, including law enforcement, medical examiners and coroners, and the general public). They will discuss the successes — missing persons and unidentified persons cases that have been resolved using NamUs — and explain the access of forensic services. Finally, the panelists will explore the impact of this persistent outreach program.

- **Mike O'Berry,** NamUs Operations Manager, National Forensic Science Technology Center, Largo, Fla.
- **Billy Young,** NamUs Coordinator, National Forensic Science Technology Center, Largo, Fla.

Evaluation and Analysis: How the Forensic Technologies Center of Excellence Assists Laboratories
■ Poster 11

Critical to our nation's justice system is the need for all public crime laboratories to adhere to the highest quality standards and to properly use grants and other funding. To assist laboratories, NIJ, through the Forensic Technologies Center of Excellence, provides no-cost, DNA program audits and grant progress assessments. In 2009, 42 public crime laboratories received DNA audits at no charge to their agency and the progress of 212 grants was reviewed. This presentation will provide an overview of the program and NIJ objectives, detail program successes, and show how laboratories can access these services.

- **Debra Figarelli,** DNA Technical Manager, National Forensic Science Technology Center, Largo, Fla.

- **Dale Heideman,** Assessments Technical Manager, National Forensic Science Technology Center, Largo, Fla.
- **Bridget Tincher,** Assessments Coordinator, National Forensic Science Technology Center, Largo, Fla.
- **John Wegel,** Assessments Coordinator, National Forensic Science Technology Center, Largo, Fla.

Putting Technology Through Its Paces: Technology Evaluations Provide Valuable Insight Into New Tools and Processes

■ Poster 12

The National Forensic Science Technology Center (NFSTC), manager of the Forensic Technologies Center of Excellence, provides technical evaluations of new tools, technologies, and processes or new uses for existing technologies. Results from these assessments are available as scientific posters, technology reports and technology transition workshops. Current evaluations include a newly available amplification kit; multiple, different collection devices; a mini-vacuum collection device; comparing handheld Raman instruments; and new semiconductor lasers and fingerprint detection chemistry. NFSTC evaluates technologies in most forensic disciplines based on organizational resources and the needs of the forensic science community.

- **Debra Figarelli,** DNA Technical Manager, National Forensic Science Technology Center, Largo, Fla.
- **Kirk Grates,** Senior Forensic Specialist, Chemistry, National Forensic Science Technology Center, Largo, Fla.
- **Hillary Markert,** Senior Forensic Specialist, Chemistry, National Forensic Science Technology Center, Largo, Fla.
- **Robert O'Brien,** Senior Forensic Specialist, DNA, National Forensic Science Technology Center, Largo, Fla.
- **Joan G. Ring,** Forensic Operations Manager, National Forensic Science Technology Center, Largo, Fla.
- **Carrie Sutherland,** Senior Forensic Specialist, DNA, National Forensic Science Technology Center, Largo, Fla.

Collecting the Evidence: Building Skillsets for Forensic Biological Screening

■ Poster 13

The National Forensic Science Technology Center currently delivers the Forensic Biological Screening Workshop for NIJ. Students are newer crime scene investigators interested in gaining a solid knowledge and skill base for quality investigation. Hands-on lessons provide experience with a variety of tools, technologies and processes for each area of study. Topics include screening techniques for blood and semen detection, using an alternate light source to locate biological stains, and case documentation. This presentation will also discuss the results and feedback from students and their agencies.

- **Kirk Grates,** Senior Forensic Specialist, Chemistry, National Forensic Science Technology Center, Largo, Fla.
- **Joan G. Ring,** Forensic Operations Manager, National Forensic Science Technology Center, Largo, Fla.
- **Carrie Sutherland,** Senior Forensic Specialist, DNA, National Forensic Science Technology Center, Largo, Fla.

From Concept to Operational Service: How the Forensic Technologies Center of Excellence Helps Transition New Technologies Into the Forensics Field

■ Poster 14

There's no shortage of new tools that promise to enhance the practice of forensic science and improve the efficiency of crime laboratories. To help transition these techniques and technologies into practice, NIJ, through the Forensic Technologies Center of Excellence, provides hands-on technology transition workshops. This presentation will provide an overview of the technology transition process and information on accessing the online workshops, which include Mitochondrial and STR DNA Analysis by Mass Spectrometry, Miniaturized Microfluidic Devices, Laser Microdissection, and Liquid Chromotography/Dual Mass Spectrometry.

- **Kirk Grates,** Senior Forensic Specialist, Chemistry, National Forensic Science Technology Center, Largo, Fla.
- **Joan G. Ring,** Forensic Operations Manager, National Forensic Science Technology Center, Largo, Fla.
- **Karolyn L. Tontarski,** Contractor, National Forensic Science Technology Center, Largo, Fla.

Blended Learning and Scenario-based Training: Efficient, Effective and Timely

■ Poster 15

From training members of the U.S. Special Forces to preparing forensic scientists who work in state crime labs, the National Forensic Science Technology Center (NFSTC) educates professionals who are on the front lines of ensuring public safety. The center delivers training using a blended learning approach to maximize class preparation, assessment and results. Complementary training using realistic scenarios allows students to practice skills in real-world situations. Training examples include the essentials of crime scene investigation, pattern evidence training and sensitive site exploitation training. The NFSTC Online Learning System (NOLS) serves as a virtual community and includes course information, resources, discussion forums, communication tools, surveys and auto-graded testing.

- **Eileen Fynan,** Training Operations Manager, National Forensic Science Technology Center, Largo, Fla.
- **Jane Smith,** Instructional Systems Senior Coordinator, National Forensic Science Technology Center, Largo, Fla.
- **Lori Sullivan,** Instructional Design Coordinator, National Forensic Science Technology Center, Largo, Fla.

America's Most Dangerous Activities

■ Poster 16

This study quantifies the relative danger of nine activities in America. Using information from the National Crime Victimization Survey and the American Time Use Survey, the rates of violence are reported for activities such as commuting, working and attending school. The results indicate that going to and from school is the most dangerous activity in America; sleeping is the safest. In general, being away from home and in-transit are much more dangerous than being at home. These findings suggest activity-specific crime prevention may be a new avenue for research and practice.

- **Andrew M. Lemieux,** Doctoral Candidate, School of Criminal Justice, Rutgers, The State University of New Jersey, Newark

Nlets

■ Poster 17

Learn more about Nlets, the international justice and public safety network. The mission of Nlets is to provide, within a secure environment, an international justice telecommunications capability and information services that will greatly benefit the safety, security and preservation of human life and the protection of property. Nlets will assist national and international government agencies and other organizations with similar missions that enforce or aid in carrying out local, state or international laws or ordinances. Nlets is currently funded by NIJ for three grant projects.

- **Chelsea Keefer,** Document Specialist, Nlets, Phoenix

Developing Effective Police Workforces: The Importance of Staffing Structures

■ Poster 18

Police organizations have long struggled in recruiting and retaining personnel and building effective workforces. The purpose of this research is to draw upon empirical data to develop evidence-based personnel planning lessons. With support from NIJ, the data underpinning this study include a national survey of U.S. police agencies with at least 300 officers and secondary socio-economic data for the corresponding communities. The analysis highlights the importance of determining the proper staffing structures (e.g., by years of experience) to most cost-effectively meet the needs of the staff and the organization and then selectively employing recruitment and retention strategies to foster these goals.

- **Bernard Rostker,** Senior Fellow, RAND Corp., Arlington, Va.
- **Jeremy M. Wilson,** Associate Director for Research, School of Criminal Justice, Michigan State University, East Lansing

Research and Education at the National Center for Media Forensics

■ Poster 19

The National Center for Media Forensics (NCMF) is funded through NIJ grants 2008-DN-BX-K218 and 2009-D1-BX-K013. The center's emphasis of the Master of Science in recording arts program at the University of Colorado, Denver, is the first of its kind in the United States and will launch this fall. This poster presentation will provide an overview of the cutting-edge, master's-level curriculum, along with NCMF's research efforts in investigating speaker recognition and media authenticity. These elements comprise the cooperative research and education design of NCMF, where researchers and students work together to strengthen media forensics sciences.

- **Jeff M. Smith,** Interim Director, National Center for Media Forensics, University of Colorado, Denver

Entity Resolution Service Development and Pilot Research Organization: SEARCH, the National Consortium for Justice Information and Statistics

■ Poster 20

Information about a given entity (e.g., a person, vehicle, etc.) is typically spread across multiple systems, where each record contains information relevant to a given application, department or organization. Often these records are, in fact, the same real-world entity, but they are not indicated as such because individual data, or attributes, may be missing, incomplete or contain misspellings. Entity Resolution (ER) is a technology that intelligence and law enforcement communities can use to enhance the accuracy and reliability of information gathered from disparate sources. Investigators and analysts can use ER to identify and consolidate real-world entity information across multiple systems and create one comprehensive profile.

- **James E. Douglas,** Justice Information Systems Specialist, SEARCH, Sacramento, Calif.

Quantitative Measures in Support of Latent Print Comparison

■ Poster 21

Although impressions of friction ridges have long been useful in forensic identification, there continues to be a need for quantitative measures. This research concerns the measurement of uncertainty in the ACE-V (analysis, comparison, evaluation and verification) process, principally in the comparison and evaluation phases. Likelihood ratios based on similarity measures are developed for the comparison phase, and the probabilities of random correspondence based on generative models of fingerprint features are developed for the evaluation phase. Each of these studies is being aided by a newly created database of high-quality, friction-ridge impressions of twins, collected by the International Association for Identification in 2007. The project will ultimately strengthen the science of friction ridge analysis and its use in the criminal justice system.

- **Sargur N. Srihari,** SUNY Distinguished Professor, Center of Excellence for Document Analysis and Recognition (CEDAR), University at Buffalo, The State University of New York

Similarity Measures and Probability Evaluation for Footwear Evidence

■ Poster 22

Impressions of footwear patterns are the most commonly found type of evidence at crime scenes. This research is to develop new computational methods to assist the forensic footwear examiner both during the investigation and in the courtroom. Algorithms and software tools are being developed to determine the degree of similarity between crime scene prints and database prints. The method first identifies geometrical patterns, such as short, straight-line segments, circles and ellipses. The relationships between these elements are modeled as a graph. The similarity between prints is determined by using a graph distance measure. A database calculates the similarity distributions and lists the result as a likelihood ratio. The work is being conducted with the close consultation and assistance of a leading provider of footwear identification software and FBI footwear examiners.

- **Sargur N. Srihari,** SUNY Distinguished Professor, Center of Excellence for Document Analysis and Recognition (CEDAR), University at Buffalo, The State University of New York

Statistical Characterization of Handwriting Characteristics Using Automated Tools

■ Poster 23

Handwriting examination suffers from a lack of statistical data on the frequency of combinations of particular characteristics. Questioned document examiners tend to assign probative values to specific elements and combinations based on their experience and recollection. This research uses databases of handwriting samples that represent the U.S. population. Lists of characteristics provided by examiners help determine what frequencies need to be evaluated. Algorithms are applied to automatically extract those characteristics. For each letter combination, the marginal and conditional frequencies of their characteristics are evaluated. Based on statistical dependencies of the characteristics, the probability of any given letter formation is computed. The resulting algorithms are incorporated into a system, known as CEDAR-FOX, for writer verification.

- **Sargur N. Srihari,** SUNY Distinguished Professor, Center of Excellence for Document Analysis and Recognition (CEDAR), University at Buffalo, The State University of New York

Enhanced Situation Awareness for Forensic Labs

■ Poster 24

The purpose of the National Law Enforcement and Corrections Technology Center's Communications Technology Center of Excellence Forensic Communication project is to improve information and workflows by enhancing situation awareness for users — lab directors, lab analysts, crime scene investigators, evidence managers, prosecutors — who have interests in forensic-related data. This project seeks to improve collaboration and coordination by providing a robust, common operating picture for stakeholders and by minimizing unnecessary communications. Improving

shared situation awareness increases the efficiency of participating organizations while promoting cost savings, flexibility and reuse. Additionally, conformance with exchange models provides interoperability with other law enforcement systems.

- **Kyle Usbeck,** Forensic Communications Technical Lead, Communications Technologies Center of Excellence, National Law Enforcement and Corrections Technology Center, Camden, N.J.

Leveraging Mobile Broadband for Law Enforcement Efficiencies: The Impact of Broadband Mobile Data on Brookline Police Department Operations

■ Poster 25

Since the launch of a 4.9 GHz mobile network with townwide coverage, the Brookline Police Department has significantly improved its operations. The network facilitates electronic incident reporting, mobile computer-aided design, or CAD, and resource maintenance system (also known as RMS) capabilities and provides for the general availability of data, images, reports, bulletins and training materials in the field. In conjunction with procedures, these enhanced capabilities have led to improvements in response times and also enabled officers to complete administrative tasks from the field, keeping them on the beat within their patrol areas instead of having to return to headquarters. NIJ has funded the National Law Enforcement Corrections and Technology Center's Communications Technologies Center of Excellence to conduct an operational test and evaluation of these efforts.

- **Edmond Vea,** Convergent Data Networks and Services Program Manager, Communications Technologies Center of Excellence, National Law Enforcement Corrections and Technology Center, Camden, N.J.

NCSTL: Sharing Knowledge to Promote Justice

■ Poster 26

The National Clearinghouse for Science, Technology and the Law (NCSTL) promotes justice by providing comprehensive scientific, technological and legal information via its searchable database of legal, forensic and technology resources; a reference collection; and content-specific bibliographies. NCSTL develops resources for the legal and scientific communities, building awareness and understanding of these communities' policies and interests. The clearinghouse also sponsors national conferences, organizes community acceptance panels, and conducts training on the applications and limitations of DNA evidence as stated in the President's DNA Initiative. Current projects include the development of forensic programs and training both in-person and via distance. In addition, NCSTL participates in partnerships with law schools and professional agencies, both federal and state.

- **Susan Zucker,** Director, Technology and Distance Education, National Clearinghouse for Science, Technology and the Law, Gulfport, Fla.

WMD Awareness for Forensic Scientists

■ Poster 27

Forensic scientists currently receive safety training to become familiar with the hazards they might encounter when responding to the crime scenes of clandestine laboratories that produce illicit drugs. However, some hidden laboratories may be for weapons of mass destruction (WMD). In order to properly recognize a potential WMD lab, forensic scientists should know the precursors, products and production methods for such weapons. This training's definition of WMDs includes chemical, biological, radiological, nuclear and explosive (CBRNE) materials as defined in the U.S. Code. This project will produce a Web- or CD-based curriculum for forensic scientists who might respond to concealed labs or crime scenes, where evidence of WMD interest or production might have previously gone unrecognized.

- **Jarrad R. Wagner,** Assistant Professor, Department of Forensic Sciences, Center for Health Sciences, Oklahoma State University, Tulsa

Responding to High Rates of Substance Abuse Failure Among Probationers: Delaware's Decide Your Time Program

■ Poster 28

The Decide Your Time Program (DYT) is one of the Delaware Department of Probation's responses to high rates of probationary failure because of substance abuse. DYT combines deterrence theory's certainty principle with a treatment element designed to assist probationers in meeting program demands of more frequent urinalyses, ensuring the detection of most drugs. Positive tests result in increased sanctions, while continued compliance results in movement to a lower level of supervision. DYT is being evaluated by the University of Delaware in a randomized trial to determine its effectiveness. This poster describes the program's theory and design as well as its implementation procedures.

- **Alan Grinstead,** Deputy Chief, Bureau of Community Corrections, Delaware Department of Probation and Parole, Dover
- **Karl Hines,** Chief, Bureau of Community Corrections, Delaware Department of Probation and Parole, Dover
- **Daniel J. O'Connell,** Associate Scientist, Center for Drug and Alcohol Studies, and Assistant Professor of Criminal Justice, University of Delaware, Newark
- **Laurin Parker,** Research Assistant, Center for Drug and Alcohol Studies, University of Delaware, Newark
- **Francisco Rodriguez,** Regional Manager, New Castle Probation and Parole and New Castle Day Reporting Center, Delaware Department of Probation and Parole, Dover
- **Christy A. Visher,** Co-Director, Center for Drug and Alcohol Studies, and Professor of Sociology and Criminal Justice, University of Delaware, Newark

Application of Chemometrics GC-MS Analysis for the Identification of Traces of Ignitable Liquids in Fire Debris Samples

■ Poster 29

This research uses the chemometric method of target factor analysis to aid fire debris analysts in detecting and statistically assessing the potential presence of ignitable liquids at levels below those required for a positive determination under current practices, i.e., ASTM E 1618. The method can detect an ignitable liquid even in the presence of high levels of interfering background components resulting from the fire. Findings from laboratory test burns and field tests conducted in collaboration with the Florida State Fire College and Florida's Bureau of Fire and Arson Investigations will be presented.

- **Michael E. Sigman,** Associate Professor, Department of Chemistry, University of Central Florida; and Assistant Director for Physical Evidence, National Center for Forensic Science, Orlando

Voice Activated MDCs: The 10-9 Project

■ Poster 30

Routine information requests (such as those through the Department of Motor Vehicles, Law Enforcement Data Systems and the National Crime Information Center) are typically performed using a patrol car's mobile data computer (MDC). However, when officers are away from the car, they no longer have access to the MDC, so they must use a manned dispatch channel. The 10-9 Project provides access for routine requests as far as 100 meters from the car by allowing officers to interact with the MDC using voice commands and a wireless headset, permitting them, for example, to run vehicle plates and subjects by number and to get updates on active calls.

- **Warren Harrison,** Professor of Computer Science, Portland State University, and Reserve Deputy Sheriff, Clackamas County Sheriff's Office, Ore.

Forensic DNA Backlog Reduction Program

■ Poster 31

The Forensic DNA Backlog Reduction Program has assisted the Westchester County DNA Laboratory in maintaining pace with evolving trends and national accreditation requirements. The grant has allowed the lab to upgrade instrumentation and software, with the purchase of the Applied Biosystems 7500 Real-Time PCR System and Genemapper ID-X. In addition, the lab hired a temporary technician, purchased supplies, had overtime money available for existing staff to work on reports and validation projects, and provided analyst training opportunities for regional and national meetings.

■ **Kevin MacLaren,** Forensic Scientist, Westchester County Forensic Laboratory, Valhalla, N.Y.

Hand-Held Binocular + 3-D Facial Recognition Technology = a Real-Time Mobile ID Solution

■ Poster 32

This project is developing a law enforcement-oriented, cost-effective, mobile, wireless hand-held binocular identification system to identify uncooperative persons of interest at ranges of up to 100 meters under uncontrolled lighting and environmental conditions. The face detection system uses existing 2-D, interagency facial databases with data-rich, 3-D facial recognition technology to accomplish the objective of integrating surveillance operations with biometrics.

■ **M. Gregory Steinthal,** Founder and President, StereoVision Imaging Inc., Altadena, Calif.

New Tools to Automate Time-Consuming Computer Forensic Investigations

■ Poster 33

Computer crime labs face huge case backlogs, largely due to limited staff and the length of time required to process each case. With funding from NIJ, Architecture Technology Corporation-New York (ATC-NY) has developed three software tools to address these backlogs: 1) P2P Marshal tracks the client's usage of peer-to-peer file-sharing; 2) Mac Marshal automates the analysis of the Mac OS X operating system and application logs, configuration files, and caches; and 3) Mem Marshal simplifies the analysis of random-access memory (RAM) snapshots from live machines prior to seizure. ATC-NY also distributes these tools for free to U.S. law enforcement and provides complimentary peer-to-peer and Macintosh forensics training to local and state police officers.

■ **Robert A. Joyce,** Technical Director, Architecture Technology Corporation-New York, Ithaca

Registry Decoder — Automatic Acquisition and Reporting of Relevant Microsoft Windows Registry Contents

■ Poster 34

Registry Decoder, a software application currently in development, will be the first tool available that enables computer forensics investigators to quickly analyze, interpret and report the information that is stored in the Microsoft Windows registry. Registry data, present on all computers running a Windows operating system, can be crucial to the outcome of an investigation. Such data include a history of installed software and devices attached to the computer, time stamps, user accounts and any URLS typed into a Web browser. Currently, extracting this information requires such a high level of expertise that the data is often overlooked or misinterpreted.

■ **Daryl Pfeif,** CEO, Digital Forensics Solutions, New Orleans

■ **Golden G. Richard III,** Chief Technical Officer, Digital Forensics Solutions, New Orleans

Researcher-Practitioner Partnerships to Impact Sexual Assault and Domestic Violence Policy

■ Poster 35

The Alaska Department of Public Safety and the University of Alaska, Anchorage, Justice Center conducted numerous research projects and published various articles on domestic violence, sexual assault, child sexual abuse and stalking. These research projects were used to develop Alaska's new multidisciplinary and multifaceted initiative to combat domestic violence and sex crimes in the state. This poster describes the researcher-practitioner partnership, identifies key results that impacted policy and practice, and explains how these results were used to develop the governor's new initiative to end the epidemic of domestic violence and sexual assault in Alaska.

- **André B. Rosay,** Director, Justice Center, University of Alaska, Anchorage
- **Katherine TePas,** Program Coordinator, Alaska State Troopers, Alaska Department of Public Safety, Anchorage

Financial Schemes and Ideologically Motivated Offenders: Descriptive Findings From the EFCDB

■ Poster 36

This research focuses on financial crime cases involving political extremists (i.e. domestic far-rightists and Islamic jihadists) indicted by U.S. federal courts in 2004. This poster presents the preliminary findings from the Extremist Financial Crime Database (EFCDB), a relational database created to collect publicly available data on relevant judicial cases from a variety of open sources. EFCDB provides descriptive statistics concerning the characteristics of financial schemes (type, length, geographic scope, goal, number of perpetrators, etc.) and prosecuted individuals (socio-demographics, ideological association, trial result, etc.), allowing law enforcement and other researchers to compare similarities and differences across offender categories.

- **Roberta Belli,** Doctoral Candidate, Doctoral Program in Criminal Justice, John Jay College of Criminal Justice, The City University of New York

Is America a Risk Factor? Assessing Mediating Influences on the Relationship Between Assimilation, Violence and Violent Victimization Among Hispanic Youth

■ Poster 37

The primary goal of this study was to examine how assimilation status among Hispanic youth is associated with their involvement in violence and their victimization experiences. To accomplish this task, longitudinal data were taken from the Project on Human Development in Chicago Neighborhoods to assess the mediating effects of self-control, association with delinquent peers and parenting on the relationship between generational status and involvement in violence and violent victimization. Although the findings provide some support for our theoretical advancements, in some instances the magnitude of the association between generational status and violence remained strong, indicating that an unidentified reason or reasons explain why first-generation Hispanic immigrants are protected from becoming involved in violence.

This project was supported by grant number 2008-IJ-CX-003, awarded by the National Institute of Justice, Office of Justice Programs, U.S. Department of Justice. The opinions, findings, and conclusions or recommendations expressed in this publication/program/exhibition are those of the author(s) and do not necessarily reflect those of the Department of Justice.

- **Chris L. Gibson,** Assistant Professor, Department of Sociology and Criminology & Law, University of Florida, Gainesville
- **Holly Ventura Miller,** Assistant Professor, Department of Criminal Justice, University of Texas-San Antonio

PRESENTER

Biographies

Poster Session Breakfast

Roberta Belli is a doctoral candidate in the John Jay College of Criminal Justice and the Graduate Center of The City University of New York. Her dissertation focuses on financial criminal networks involving political extremists and profit-driven offenders prosecuted by U.S. federal courts. Belli was awarded an NIJ graduate dissertation fellowship and a predoctoral fellowship from the National Consortium for the Study of Terrorism and Responses to Terrorism, a Center of Excellence of the U.S. Department of Homeland Security. Previously, Belli was a law clerk in the Office of the Prosecutor at the International Criminal Court in The Hague, Netherlands. Belli holds a law degree from the University of Trento, Italy, and a master's in international and comparative criminal law (cum laude) from Utrecht University, Netherlands.

James E. Douglas is a Justice Information Systems Specialist for SEARCH, the National Consortium for Justice Information and Statistics, where he offers technical assistance and research with systems planning, development and implementation on integrated justice and information sharing projects. Douglas has more than 25 years of experience in information systems technology and voice and data networks, and more than seven years of experience with interoperable communications, information technology and information sharing for public safety agencies. Previously, Douglas was project manager for L3 Government Services Inc., in support of the National Law Enforcement and Corrections Technology Center, Northeast. He is currently a member of various global committees and working groups. Douglas earned bachelor's and master's degrees (with distinction) in engineering from Clarkson University.

Debra Figarelli is the DNA Technical Manager for the National Forensic Science Technology Center (NFSTC). A DNA subject matter expert, Figarelli is an FBI-certified DNA auditor with almost two decades of experience in DNA analysis. She conducts final reviews for NFSTC's External DNA Audit program, coordinating with audit teams and the FBI. As a forensic chemist and toxicologist, she has analyzed evidence for controlled substances and testified in court. Previously, Figarelli worked for the Drug Enforcement Agency. Figarelli earned a Bachelor of Science degree in chemistry from Northern Arizona University. She also holds auditor certificates from the FBI and the American Society of Crime Laboratory Directors Laboratory Accreditation Board and is a qualified trainer for forensic International Organization for Standardization accreditation.

Chris L. Gibson is an Assistant Professor in the Department of Sociology and Criminology & Law at the University of Florida. He is a 2009 NIJ W.E.B DuBois Fellow.

Warren Harrison is a Professor of Computer Science at Portland State University and a Reserve Deputy with the Clackamas County Sheriff's Office. He is past editor-in-chief of *Empirical Software Engineering, the Software Quality Journal* and *IEEE Software,* as well as a recipient of the Institute of Electrical and Electronics Engineers Computer Society's Golden Core Award. He holds a doctorate in computer science from Oregon State University, a master's degree in computer science from the University of Missouri and a bachelor's degree in accounting from the University of Nevada.

Robert A. Joyce is the Technical Director for Information Management at Architecture Technology Corp. in New York (ATC-NY). His research interests include distributed information storage and transformation, computer forensics, image and video processing, network and media security, visualization and design, and human-computer interaction. Since joining ATC-NY in 2002, Joyce has led several research and development efforts in information management and has made significant contributions to many other projects. He is the principal developer of Mac Marshal and was a substantial contributor to the development of the OnLine Digital Forensic Suite, a live forensics tool, and P2P Marshal, a peer-to-peer usage analysis product. Joyce earned his doctorate in electrical engineering from Princeton University.

Chelsea Keefer is the Document Specialist for Nlets. Keefer creates documentation and other resources for Nlets and conducts marketing and outreach, training, grants administration, project management, and more. Previously, Keefer was a full-time business writing instructor for Arizona State University. Keefer's professional background includes grant and technical writing, as well as writing instruction and tutoring. She received her Master of Arts and Bachelor of Fine Arts degrees from Bowling Green State University.

Andrew M. Lemieux is a doctoral candidate in the School of Criminal Justice at Rutgers, The State University of New Jersey. His dissertation quantifies the risk of violence Americans face in various activities and places. His other research interests include the illegal wildlife trade and poaching prevention in Africa.

Kevin MacLaren is a Forensic Scientist with the Westchester County Forensic Laboratory in New York, where he has worked for the last nine years. He has been involved in more than 700 cases, requiring the DNA analysis of more than 2,500 samples. Also during his tenure MacLaren has participated in and written laboratory validations and provided training for law enforcement personnel. He is currently serving on the board of directors for the Northeastern Association of Forensic Scientists. He is also a member of the American Academy of Forensic Sciences and the International Association for Identification.

Hillary Markert is a Senior Forensic Specialist-Chemistry for the National Forensic Science Technology Center. Markert's forensic laboratory experience includes chemistry, DNA analysis, evidence handling and biology, with specialized training in drug chemistry, laboratory quality systems, fire debris analysis, ethics and forensic biology. She has participated in the design, performance and reporting of validations and verification of laboratory methods and instrumentation, from screening tests to amplification kits. She is a member of the American Academy of Forensic Sciences and the American Board of Criminalistics, where she is a drug analysis fellow. Markert holds a master's degree in forensic sciences from The George Washington University and a bachelor's degree in chemistry from the University of Miami.

Holly Ventura Miller is an Assistant Professor in the Department of Criminal Justice at the University of Texas at San Antonio. She is a 2009 NIJ W.E.B DuBois Fellow.

Mike O'Berry is the Operations Manager for the National Missing and Unidentified Persons System at the National Forensic Science Technology Center. O'Berry has more than 25 years of experience in visual communications, computer graphics, instructional technology, Web site development and multimedia. He has managed computer-based training development and delivery for more than 12 years. His experience in program management includes budget development, project planning, scheduling, system design and production supervision. He is also a published author on multimedia training for law enforcement. O'Berry holds a bachelor's degree in visual arts from Eckerd College, a post-secondary teaching certificate to train vocational teachers from the University of South Florida and a technology certificate in commercial art technology from Tomlinson Education Center.

Daniel J. O'Connell is a Scientist with the Center for Drug and Alcohol Studies and an Assistant Professor in the Department of Criminal Justice at the University of Delaware (UD). At UD, he teaches criminological theory as part of the Inside-Out Program. He is also the principal investigator of the Decide Your Time project and project director for the Mid-Atlantic Research Center of the National Institute on Drug Abuse-funded Criminal Justice Drug Abuse Treatment Studies cooperative. His research focuses on design and methodologies, intervention development, and project management. He has written articles on drug treatment, prison management, brief HIV prevention interventions and criminological theory. O'Connell holds a doctorate.

Golden G. Richard III is the Chief Technical Officer of Digital Forensics Solutions and Professor of Computer Science at the University of New Orleans, where he directs the Network Security Lab and the Greater New Orleans Center for Information Assurance. Richard is an internationally recognized member of the digital forensics community, is actively involved in research and tool development, and holds a Global Information Assurance Certification as a digital forensics investigator. He is a member of the U.S. Secret Service Electronic Crimes Task Force and the American Academy of Forensics Sciences. He also chairs the board of directors for the Digital Forensics Research Workshop.

Joan G. Ring is the Forensic Operations Manager for the National Forensic Science Technology Center (NFSTC). Ring manages technology transition workshops, technical evaluations to determine the forensic utility of newly developed analytical equipment and other NFSTC projects. She has more than 25 years of experience in forensic drug chemistry. Previously, Ring was a materials and process engineer and an analytical chemist for the U.S. Environmental Protection Agency. Ring has worked toward professional development in chromatography, liquid chromatography, basic mass spectral interpretation, explosives, narcotics identification, laboratory auditing, International Organization for Standardization 17025 quality standards, quality assurance and proficiency testing. Ring holds a Bachelor of Science degree in biochemistry from the University of Massachusetts and a Master of Science degree in forensic chemistry from Northeastern University.

André B. Rosay is the Director of the Justice Center at the University of Alaska, Anchorage. He is actively involved in research and service to reduce violence against women in both urban and rural Alaska. With significant federal and state funding, Rosay has worked closely with tribal and state partners to transform research into policy and practice. He has extensive experience designing and implementing programs of research in Alaska Native communities. He recently received an Ulu Award from the Alaska Native Justice Center, recognizing his dedication and support to collaborative justice research in Alaska. Rosay holds a doctorate in criminology and criminal justice from the University of Maryland, College Park.

Michael E. Sigman is an Associate Professor and the Assistant Director for Physical Evidence at the University of Central Florida's National Center for Forensic Science. Previously, he held positions with Oak Ridge National Laboratory and Dow Chemical Company. He also held a postdoctoral fellowship with the National Institutes of Health at the University of Illinois and the University of Chicago. In 1997 he received an R&D 100 Award, and in 2002 Sigman served as the chemical threat chair for the U.S. Department of Energy's national workshop on Basic Research Needs for Countering Terrorism. Sigman's current research focuses on the analysis of ignitable liquids and explosives with concurrent database development efforts. Sigman received a doctorate in organic chemistry from Florida State University.

Jeff M. Smith is the Interim Director of the National Center for Media Forensics (NCMF). Smith is helping to build the foundation for strengthening forensic sciences in the U.S. through the center's education and research programs. Smith's research areas include forensic authentication of digital audio and forensic speaker recognition. Smith looks forward to pursuing these research interests and many others this fall, when the NCMF will welcome its new director.

Sargur N. Srihari is a Distinguished Professor in the Department of Computer Science and Engineering at the University at Buffalo, The State University of New York. Srihari is the founding director of the Center of Excellence for Document Analysis and Recognition. His work led to the first automated systems for reading handwritten postal addresses in the world. An author of more than 300 papers, three books and seven U.S. patents, he served on the Committee on Identifying the Needs of the Forensic Science Community with the National Academy of Sciences. Srihari is a fellow with the Institute of Electrical and Electronics Engineers and the International Association for Pattern Recognition. Srihari is a distinguished alumnus of The Ohio State University College of Engineering.

M. Gregory Steinthal is Founder and President of StereoVision Imaging Inc. Steinthal has an extensive background in the research and development of optical- and chemical-based sensing technologies and has been active in the defense industry for more than 10 years. He is a past program manager or principal investigator for the U.S. Special Operations Command, Army Research Laboratory, U.S. Marine Corps, Naval Air Systems Command, Federal Aviation Administration and Department of Homeland Security. He has published several technical papers and has had several patents issued. Steinthal received a Master of Science degree in electrical engineering from the University of Arizona and a Bachelor of Science degree in electrical engineering from the University of Rochester.

Carrie Sutherland is a Senior Forensic Specialist-DNA for the National Forensic Science Technology Center. Sutherland instructs hands-on modules for DNA training programs and biological screening workshops for crime scene investigators and DNA analysts. She validates DNA instruments, performs technology evaluations and conducts DNA laboratory audits using FBI quality audit standards. Sutherland has co-authored training modules for the analyst training program DNA initiative. She has been a crime laboratory DNA analyst for the Florida Department of Law Enforcement and an administrator for CODIS. Sutherland holds a bachelor's degree in biological sciences from Florida State University and has attended the FBI's DNA auditor training, statistics and mixture interpretation, International Organization for Standardization 17025 quality standards, and laser microdissection.

David Sylvester is a Chief Projects Officer for the National Forensic Science Technology Center. Sylvester has extensive program development experience, including developing and managing forensic laboratory quality assurance programs compliant with the American Society of Crime Laboratory Directors Laboratory Accreditation Board and the International Organization for Standardization. Sylvester served with the Indiana State Police for 25 years, including 18 with the crime laboratory. He was also a road trooper, crime scene investigator, polygraph examiner, lab director, section commander, leader of the emergency response team and statewide coordinator for the clandestine laboratory response team. Sylvester holds a bachelor's degree in criminal justice and a Master of Public Administration degree from Indiana University.

Katherine TePas is a Program Coordinator for the Division of Alaska State Troopers with the Department of Public Safety. An 11-year veteran, she manages numerous grants relating to violence against women and provides training to all levels of law enforcement on responses and investigations for domestic violence, sexual assault and stalking incidents. TePas is the co-author of several groundbreaking research publications on violence against women. TePas earned a master's degree in social service administration from the University of Chicago.

Kyle Usbeck is the Lead Software Engineer and Technical Lead on the Forensic Communication project for the National Law Enforcement and Corrections Technology Center's Communications Technologies Center of Excellence. Usbeck designs and develops situational awareness tools. He has more than five years of experience conducting research in the secure wireless agent testbed at Drexel University, where he gained experience developing secure, distributed, agent-oriented applications for resource-constrained, mobile devices in wireless networks. Usbeck earned a Bachelor of Science degree and Master of Science degree in computer science from Drexel University.

Edmond Vea is a Program Manager for the Communications Technologies Center of Excellence with the National Law Enforcement and Corrections Technology Center. Vea contributes to the team as a subject matter expert on land mobile radio, Next Generation 911 and broadband communications. Over the past 19 years, Vea has owned, operated, consulted and managed telecommunications businesses in Germany, Italy, Japan and the United States. Vea worked for five years with ClosedNetworks as the president and lead public safety communications consultant.

Jarrad R. Wagner is an Assistant Professor of Forensic Sciences at the Oklahoma State University Center for Health Sciences, where he specializes in research and instruction in forensic toxicology and trace chemical analysis. Wagner formerly served as a chemist for the FBI Laboratory's Hazardous Materials Response Unit, as a forensic scientist in the Orange County Sheriff-Coroner Department and as a reserve police officer for the City of Irvine. He has published articles in scientific journals and has made presentations related to forensic science for professional institutes and trainings throughout the United States. Wagner earned his doctorate from the University of California, Irvine.

Jeremy M. Wilson is the Associate Director for Research and an Associate Professor in the School of Criminal Justice at Michigan State University (MSU), and an Adjunct Behavioral Scientist at the RAND Corp. For RAND, he directs the Police Recruitment and Retention Clearinghouse. He is a visiting scholar in the Australian Resource Council's Centre of Excellence in Policing and Security at Griffith University. Wilson also has held the Willett Chair in Public Safety in the Center for Public Safety at Northwestern University and has collaborated with police agencies, communities, task forces, and governments throughout the world. He has published widely in the areas of policing, violence prevention and internal security. Wilson received his doctorate in public administration from The Ohio State University.

Susan Zucker is the Director of Technology and Distance Education for the National Clearinghouse for Science, Technology and the Law (NCSTL). Zucker developed Director Carol Henderson's Scientific Evidence course for Web-based delivery for NCSTL, which is offered at Stetson College of Law. She teaches Web-based distance delivery graduate courses for the University of South Florida's (USF) College of Education, where she holds a courtesy faculty appointment. She also has held a number of positions with USF. Zucker earned her doctorate in instructional technology with a cognate in medical informatics from USF, where she also earned a master's degree in curriculum and instruction. She holds a Bachelor of Arts degree from Sarah Lawrence College.

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