National Institute of Justice
Forensic Science Research and Development Symposium
American Academy of Forensic Sciences 71st Annual Scientific Meeting

The NIJ Forensic Science R&D Symposium is an open meeting where attendees can learn about NIJ-funded research across a variety of forensic science areas. AAFS meeting registration is not necessary. Feel free to stop by and listen to specific presentations or stay all day and learn about the diverse NIJ forensic science R&D portfolio. The R&D symposium will not be affected by a U.S. government shutdown.
Information will be available at ***www.forensicCOE.org.***

Tuesday
February 19 — 8:30 a.m. – 5:10 p.m.

Program:

8:30 a.m.	-	8:40 a.m.	Welcome and Opening Remarks *Gerald LaPorte* Director, Office of Investigative and Forensic Sciences

Morning Session I – Impression and Pattern Evidence/Trace Evidence
Moderated by NIJ program manager Gregory Dutton

8:40 a.m.	-	9:05 a.m.	Quantitative Assessment of Shoeprint Accidental Patterns with Implications Regarding Similarity, Frequency, and Chance Association of Features *Jacqueline Speir, West Virginia University* – 2013-DN-BX-K043
9:05 a.m.	-	9:30 a.m.	Finding the Region of Origin of Bloodspatters in Complex Situations: Physical Description, New Data, Tools, and Reconstruction Method *Daniel Attinger,* Iowa State University – 2014-DN-BX-K036
9:30 a.m.	-	9:55 a.m.	Raman Microspectroscopy and Advanced Statistics for Detection and Characterization of Gunshot Residue *Igor K. Lednev,* University at Albany, SUNY – 2016-DN-BX-0166
9:55 a.m.	-	10:20 a.m.	Consistent Single Shot Detection of Organic and Inorganic Residues from One Sample using LC/MS and Host-Guest Complexes *Suzanne Bell*, West Virginia University – 2015-DN-BX-K048
10:20 a.m.	-	10:35 a.m.	Break

Morning Session II – Forensic Biology/DNA
Moderated by NIJ program manager Gregory Dutton

10:35 a.m.	-	11:00 a.m.	A Method to Estimate the Age of Bloodstains using Quantitative PCR *Robert W. Allen,* Oklahoma State University – 2014-DN-BX-K025
11:00 a.m.	-	11:25 a.m.	Use of Genetically Variant Peptides to Statistically Estimate the Genetic Background of Hair Shafts *Zachary Goecker,* University of California, Davis – 2015-DN-BX-K065

11:25 a.m.	-	11:50 a.m.	Cellular Autofluorescence Signatures for Determination of Tissue Type, Age of Evidence, and Separating Contributors from Biological Mixtures *Christopher Ehrhardt,* Virginia Commonwealth University – 2015-DN-BX-K024
11:50 a.m.	-	12:15 p.m.	Ultrahigh Speed Direct PCR. A Method for Obtaining STR Based Genotypes in Under 6 Minutes *Bruce McCord,* Florida International University – 2015-R2-CX-K038
12:15 p.m.	-	1:35 p.m.	Lunch Break – On Your Own

Afternoon Session I – Controlled Substances and Toxicology
Moderated by NIJ program manager Frances Scott

1:35 p.m.	-	2:00 p.m.	Chemical Analysis of Controlled Substances Using Automated Headspace Solid Phase Microextraction – Gas Chromatography/Mass Spectrometry *Jorn Yu,* Sam Houston State University – 2014-R2-CX-K005
2:00 p.m.	-	2:25 p.m.	Δ9-THC Infused Foods *Clark Smith,* Denver Police Department Crime Laboratory – 2015-DN-BX-K028
2:25 p.m.	-	2:50 p.m.	Development of a Quantifiable Confirmatory Test to Detect Fly Artifacts Contaminating Bloodstain Evidence *Michael Truver and Kaitlyn Palmquist,* Sam Houston State University – 2017-R2-CX-0019
2:50 p.m.	-	3:15 p.m.	Comparison of Two Validated LCMSMS Methods for the Quantitative Analysis of Opioids, Cocaine, and Cocaine Metabolites in Biological Matrices *Rebecca Wagner,* Virginia Department of Forensic Science – 2015-DN-BX-K008
3:15 p.m.	-	3:30 p.m.	Break

Afternoon Session II – Forensic Anthropology and Forensic Pathology
Moderated by NIJ program manager Danielle McLeod-Henning

3:30 p.m.	-	3:55 p.m.	Detection of Insect Stains from Four Species of Necrophagous Flies on Household Materials using Immunoassays *David B. Rivers,* Loyola University Maryland – 2016-DN-BX-0181
3:55 p.m.	-	4:20 p.m.	ICPUTRD: Image Cloud Platform for Use in tagging and Research on Decomposition *Audris Mockus,* University of Tennessee – 2016-DN-BX-0179
4:20 p.m.	-	4:45 p.m.	Analysis of Alternative Light in the Detection of Cutaneous Bruises: A Multisite Randomized Controlled Trial *Katherine Scafide,* George Mason University and *Daniel Sheridan*, Texas A&M University – 2016-DN-BX-0147
4:45 p.m.	-	5:10 p.m.	Using Fundamental Mechanics to Predict Infant Skull Fracture Patterns *Brittany Coats,* University of Utah – 2016-DN-BX-0160

Adjourn