

## Agenda - November 28, 2012 - Day One

### Forensic Biology/DNA, Firearms Analysis, and Fire Research Sessions – Green Auditorium

- 8:00-8:30 Registration (Coffee provided)
- 8:30-8:40 Introductions – John Paul Jones II, MBA, Law Enforcement Standards Office (OLES), Office of Special Programs (OSP)
- 8:40-9:00 Welcoming Keynote Address – Willie E. May, PhD, Associate Director for Laboratory Programs, Office of the Director

#### DNA Stability, Extractions and Quantitation

**Moderator: John M. Butler, PhD, Biomolecular Measurement Division, Material Measurement Laboratory (MML)**

- 9:00-9:05 Overview of DNA Programs at NIST – John M. Butler, PhD, Biomolecular Measurement Division, MML
- 9:05-9:25 Stability Studies – Margaret C. Kline, MS, Biomolecular Measurement Division, MML
- 9:25-9:40 DNA Extraction – Erica L. R. Butts, MFS, Biomolecular Measurement Division, MML
- 9:40-10:00 DRAGEN (NIST Forensics Grand Challenge Project) – David J. Ross, PhD, Biosystems and Biomaterials Division, MML
- 10:00-10:20 Digital PCR & DNA Quantitation – Ross J. Haynes, Biomolecular Measurement Division, MML
- 10:20-10:50 Break and Poster Viewing/Exhibitor Displays

#### STRs, mtDNA, Rapid DNA

- 10:50-11:10 STR Kits & New Loci – Carolyn R. Hill, MS, Biomolecular Measurement Division, MML
- 11:10-11:30 STRBase and Information Resources – John M. Butler, PhD, Biomolecular Measurement Division, MML
- 11:30-11:50 Mixture Interpretation & True Allele – Mike D. Coble, PhD, Biomolecular Measurement Division, MML
- 11:50-12:10 mtDNA Base Composition – Kevin M. Kiesler, MS, Biomolecular Measurement Division, MML
- 12:10-12:30 Rapid DNA – Pete M. Vallone, PhD, Biomolecular Measurement Division, MML
- 12:30-1:45 Lunch and Poster Viewing/Exhibitor Displays

#### Firearms Analysis: Measurement of Identification for Firearms and Toolmark Evidence

**Moderator: Robert M. Thompson, OLES, OSP**

- 1:45-2:00 Overview of Firearms Projects at NIST – Robert M. Thompson, OLES, OSP
- 2:00-2:20 Establishing the “National Ballistics Evidence Search Engine (NBESE)” Based on 3D Topography Measurements on Correlation Cells – (Half-year Report for the NIST 2012 Forensics Grand Challenge Project) – John Song, Semiconductor and Dimensional Metrology Division, Physical Measurement Laboratory (PML)
- 2:20-2:40 Initial Tests and Analysis of the NIST Proposed Congruent Matching Cells (CMC) Method using Fired Cartridge Cases from Consecutively Manufactured Pistol Slides – Wei Chu, PhD, Guest Researcher, Semiconductor and Dimensional Metrology Division, PML
- 2:40-3:00 2D/3D Topography Comparisons of 10 Consecutively Manufactured Chisels and Punches through the Cross Correlation Function – Alan Zheng, MS, Semiconductor and Dimensional Metrology Division, PML
- 3:00-3:20 NIST Bullet SRM 2460 Replication and Validation Using an Improved Vacuum Casting Method and Potential Evidentiary Use – Thomas Brian Renegar, Semiconductor and Dimensional Metrology Division, PML
- 3:20-3:40 Break and Poster Viewing/Exhibitor Displays

#### Firearms Analysis: Improving Accuracy and Quality Assurance

- 3:40-4:00 Standard Reference Material 2461 Standard Cartridge Case – Theodore V. Vorburger, PhD, Guest Researcher, Semiconductor and Dimensional Metrology Division, PML
- 4:00-4:20 The National Ballistic Imaging Comparison Parts 1 and 2 – Alan Zheng MS, Semiconductor and Dimensional Metrology Division, PML
- 4:20-4:40 Models for Firearm Impression Cross-correlation Scores – James H. Yen, PhD, Statistical Engineering Division, Information Technology Laboratory

#### Fire Research at NIST

- 4:40-5:00 Verification and Validation of Fire Models Used for Forensic Reconstructions – Kevin B. McGrattan, PhD, Fire Research Division, Engineering Laboratory
- 5:00 Day One Concludes



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## Agenda - November 30, 2012 - Day Three

### Computer & Multimedia Forensics and Fingerprints & Biometrics Sessions – Green Auditorium

- 8:00-8:30 Registration (Coffee provided)
- 8:30-8:40 Welcoming & Introductions – John Paul Jones II, MBA, Law Enforcement Standards Office (OLES), Office of Special Programs
- 8:40-9:00 Introduction to Sessions and Overview of Forensics and Information Technology at NIST  
– Martin Herman, PhD, Information Technology Laboratory Office, Information Technology Laboratory (ITL)

#### Computer and Multimedia Forensics

**Moderator: Barbara Guttman, Software and Systems Division, ITL**

- 9:00-9:20 Overview of Computer Forensics at NIST – Barbara Guttman, Software and Systems Division, ITL
- 9:20-9:40 National Software Reference Library and Diskprint Research – Mary T. Laamanen & John M. Tebbutt, Software and Systems Division, ITL
- 9:40-10:00 File Identification in iOS – Michael Ogata, Software and Systems Division, ITL
- 10:00-10:20 Computer Forensic Tool Testing (CFTT) at NIST – James R. Lyle, PhD, Software and Systems Division, ITL
- 10:20-10:50 Break and Poster Viewing/Exhibitor Displays
- 10:50-11:10 Mobile Device Tool Testing – Richard Ayers, MS, Software and Systems Division, ITL
- 11:10-11:30 Developing a Forensic Image Examination Rating Scale – Charles Fenimore, PhD, Information Access Division, ITL
- 11:30-11:50 Instance search, copy detection, and semantic indexing at TRECVID – Paul D. Over, Information Access Division, ITL
- 11:50-1:10 Lunch and Poster Viewing/Exhibitor Displays (Deployable Lab Closes at 1:30PM)

#### Fingerprints & Biometrics

**Moderator: Michael D. Garris, Information Access Division, ITL**

- 1:10-1:20 Overview of Fingerprint and Biometric Activities at NIST – Michael D. Garris, Information Access Division, ITL
- 1:20-1:40 Overview of the NIST Evaluation of Latent Fingerprint Technologies (ELFT) Project  
– Michael D. Indovina, Information Access Division, ITL
- 1:40-2:00 Fingerprint Quality – Elham Tabassi, Information Access Division, ITL
- 2:00-2:20 Biometrics & Forensics: The Role of Standards in Data Exchange – Brad Wing, Information Access Division, ITL
- 2:20-2:40 Metrics for Enhancement of Latent Fingerprint Images (NIST Forensics Grand Challenge Project) – Andrew M. Dienstfrey, Applied and Computational Mathematics Division, ITL & Mary F. Theofanos, MS, Standards Coordination Office, Laboratory Programs
- 2:40-3:00 Break and Poster Viewing/Exhibitor Displays
- 3:00-3:20 Transcending PSNR: SIVV as a Comprehensive Image Fidelity Metric – John M. Libert, Information Access Division, ITL
- 3:20-3:40 Challenges in Forensic Face Recognition – P. Jonathon Philips, PhD, Information Access Division, ITL
- 3:40-4:00 Human Assisted Speaker Recognition – Craig S. Greenberg, MS, Information Access Division, ITL
- 4:00 Conference Concludes

