

## Science & Practice Subcommittees' Call for Presentation Topics

### **Biometric Information Services (Individuals can reach out to the subcommittee chair, Bethany Retton, at [blretton@fbi.gov](mailto:blretton@fbi.gov) for more information):**

- Instances where interoperability between ABIS systems in different jurisdictions were used to help solve a case
- Lessons learned from your agency's recent ABIS procurement process
- Tips and tricks your agency deploys to get the most out of your ABIS
- How your agency entered into an interoperability agreement with another agency and the benefits of that agreement

### **Bloodstain Pattern Analysis:**

- BPA scientific research and studies
- Interesting BPA casework

### **Crime Scene Investigation:**

- The CSI Effect
- Mental Health/Vicarious Trauma
- Officer Involved Shootings
- Mass Fatality Management/Scene Response
- Clandestine Graves
- Testimony
- Increased sensitivity of DNA technologies, enhancing PPE/cleaning methods for collection
- Collection & preservation of various types of DNA evidence on scene
- Case Studies of new technologies, solved cold cases, interesting scenes

### **Digital & Multimedia Evidence:**

- **Computer Forensics**
  - Examining novel devices, including IOT, cars, drones
  - AI Detection/ Artifacts left by AI
  - Cell site information
  - Defeating encryption
  - Cell phone examination
  - Co-processing electronic evidence with additional disciplines (latents, DNA)
  - Examination of "destroyed" electronic evidence
  - Case Studies and/or research
- **Multimedia evidence**
  - Audio/Video enhancement techniques
  - Large scale multimedia review
  - DVR recovery, or recovery from novel devices
  - Learning the ins and outs of tools, including: FFMPEG, Various Enhancement Tools (Adobe CC, Amped, VF Pro)
  - Advanced analysis of multimedia, including Photogrammetry (Various Techniques), Comparative Analysis, Authentication
  - AI Detection tools and techniques
  - Case Studies and/or research

**Facial Identification:**

- Presentation of real cases
- How to deal with low quality imagery
- How to manage a team of forensic facial examiners
- How to ensure continual learning and development of forensic examiners
- How to actively use the results from proficiency testing
- The integration of a human-in-the-loop with the use of facial recognition systems
- Workshop on how to digitally improve facial images (e.g. in Photoshop)
- Presentation on the impact of Facial Recognition Technology on the Law Enforcement Community
- Presentations on on-going facial examination research
- Presentation on facial recognition and identification as it applies to courts of law
- Update on on-going efforts at the states and federal level to support (or challenge) use of FRT
- Update on standards that have been published or are in development

**Latent Print Development:**

- advanced processing techniques
- most successful processing methods for cartridge cases
- new processing techniques (such as liquid latex for arson evidence)
- research findings on any new processing techniques

**Latent Print Identification:**

- “research based” lectures
- backlog reduction lectures
- latent analysis lectures
- conflict resolution lectures

**Professional Development:**

- “increasing productivity” with diminished resources
- leadership topics
- collaboration, creativity, innovation
- “Leading from where you are” – how to effectively work on a team, informal leadership roles, resources, etc.

**Forensic Photography and Electronic Imaging:**

- alternate light source (ALS)/crime scene/evidentiary imaging
- post-processing techniques
- injury and macro photography
- High Dynamic Range (HDR) imaging
- advanced lighting techniques
- panoramic imaging
- photogrammetry
- case studies
- research

**General Forensics:**

- firearms and toolmark related topics

**Tenprint Identification:**

- Tenprint certification preparation
- Pattern interpretation/classification
- Comparison techniques