

**Say No to Drugs: Forensic Applications Outside of Traditional Illicit Drug Analysis  
(Organized by the Forensics and Homeland Security Interest Group)**

**Tuesday, June 4<sup>th</sup>, 5:45-7:00 pm**

Coordinators: Christopher C. Mulligan and Brittany K. Casey

**Panel:** **Dr. Thomas A. Blake** (Emergency Response Branch, Centers for Disease Control and Prevention (CDC))  
**Dr. Thomas P. Forbes** (Surface and Trace Chemical Analysis Group, National Institute of Standards and Technology (NIST))  
**Ms. Cynthia Carter** (Forensic Chemist, Bureau of Alcohol, Tobacco, and Firearms (ATF))  
**Mr. Jon Stephenson** (Toxicology Technical Leader, Georgia Bureau of Investigation (GBI))

Initial/Final Attendance: 76/98

Audience Composition: academia, industry, practitioner, federal agencies

From attendee feedback for past Forensic and Homeland Security Workshops, there was a growing sentiment that the focus is commonly on illicit drug analysis (which is true). Accordingly, Coordinators Mulligan and Casey organized a panel of researchers and practitioners that served the dual purpose of highlighting several of the important agencies based in Georgia (including the CDC, Atlanta ATF Lab, and GBI), while also focusing on application areas outside of forensic drug evidence (i.e., chemical threats, explosives, toxicology, etc.).

Each panel member gave a brief introductory presentation regarding their organization and expertise, followed by Q&A with the audience for the majority of the workshop.

**Panel Discussion – Audience Questions and Responses (~45 minutes)**

*Lead Question from Coordinators:* Do you typically rely on a single MS-based technique, or is it a multi-instrument strategy that's employed for your analysis purposes. If you use different mass spectral techniques, is the data they generate weighted differently? Do you employ one technique for screening (like GC-MS or qTOF) and another for confirmation (LC-MS/MS)?

*Audience Questions for Discussion:*

- How do instrumental capabilities to detect peroxide explosives, artificial sweeteners, and sugar alcohols (based explosives) compare to 10 years ago?
- What are the things you wish you could do or that you are trying to solve that this community (ASMS/MS scientists) can help you with?

- In terms of developing/modifying methods, what throughput are you expecting to achieve on a daily basis?
- If you only had enough sample for ONE test, which would you choose to go to court with?
- Many labs employ a team structure. What does the distribution of labor look like in your lab/agency?
- Are portable instruments used in your line of work? Is there interest in moving into that realm?
- How often do uranium isotope assays come up in the WMD realm?
- While adopting new instrumentation is not common, where do you hear about or explore new analytical technologies? Do you rely mostly on sales representatives or turn to the literature?
- Are there literature or software databases for accepted biomarkers for animal models using MS techniques in your area, or do you need/create your own?
- With the rise in the anti-vaccine culture, what's being done to prevent potential viral infections?
- In cases of post-blast explosives, is there typically enough evidence left to analyze and detect? Is it at LOD or is there a lot of potential evidence?

Respectfully Submitted,

Christopher C. Mulligan (Chair 2019) and Brittany K. Casey (Chair 2020)