

Novel Synthetic Opioid Detection: Analytical and Other Challenges

A Webinar Hosted by the Chemical Sciences Roundtable

May 11, 2020

12:00—1:30 PM EST

The opioid epidemic is of great national importance. Addressing the associated public-health and safety concerns will require efforts and advances made in many fields, including the chemical sciences. Novel synthetic opioids (NSOs) are of particular concern because they can be substantially more potent than market opioids and as such have been linked to an increase in overdose deaths. They are also often difficult to detect with available field tests, putting others at risk for unintended exposure. NSOs include both fentanyl and non-fentanyl analogues that are structurally similar to known opioids and are often found in mixtures with other opioids and with varying purity and potency. Detection of many NSOs can be difficult even in clinical or forensic laboratory settings, but in-field detection is especially challenging because it requires rapid, targeted detection methods for compounds that might not be included in the reference database. These compounds can have elution or response behaviors similar to those of other known materials or can be present below detection limits, thus making them difficult to distinguish. The variety of NSOs and the speed at which they are being introduced into the market make detection and characterization even more challenging. This webinar, the second of three hosted by the Chemical Sciences Roundtable in 2020, will explore these and other analytical and data challenges in the detection of novel synthetic opioids.

Agenda

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| 12:00 PM | Welcome and Introductions
Ellen Mantus, <i>CSR Director</i> |
| 12:05 PM | Overview of the Opioid Crisis and Role of Chemistry to Combat Emerging Drug Threats
Jonathan G. McGrath, <i>National Institute of Justice</i> |
| 12:15 PM | User Requirements, Technologies, and Practical Considerations in Field Testing for Opioids
Barry K. Logan, <i>NMS Labs</i> |
| 12:40 PM | Data Challenges in Field Detection of Novel Synthetic Opioids
Marcela Najarro, <i>National Institute of Standards and Technology</i> |
| 1:05 PM | Discussion
Moderated by Linda J. Broadbelt, <i>Northwestern University</i> |
| 1:30 PM | Webinar Concludes |