Workshop #1: Benzodiazepines for Dummies...And Smarties, Too!

**Date** Monday, October 14, 2019

**Time** 8:00 am - 12:00 pm

**Cost**

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<th>Member Rates</th>
<th>Non-member Rates</th>
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<td>Early Bird Registration</td>
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<td>May 1- Aug 22</td>
<td>$125</td>
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<td>Chairs</td>
<td>Marc A. LeBeau</td>
<td>Jeri Ropero-Miller</td>
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<td>Senior Scientist</td>
<td>Chief Scientist</td>
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<td>FBI Laboratory</td>
<td>RTI International</td>
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<td></td>
<td><a href="mailto:malebeau@fbi.gov">malebeau@fbi.gov</a></td>
<td><a href="mailto:jerimiller@rti.org">jerimiller@rti.org</a></td>
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**Abstract**

While the U.S. opioid epidemic has garnered the country’s attention, the abuse of benzodiazepines has also skyrocketed but stayed under the radar. From 1996 to 2013, the number of adults filling a benzodiazepine prescription increased from 8.1 million to 13.5 million – a 67% increase! And while opioid prescriptions peaked in 2012, they have decreased by nearly 20% since then. Meanwhile, benzodiazepine prescriptions continue to rise.

A study released earlier this year in the Journal of the American Medical Association showed that the percentage of outpatient medical visits that resulted in a prescription for a benzodiazepine doubled from 2003 to 2015. About half of those prescriptions came from primary care physicians. And with the upsurge in prescriptions there has been a sevenfold increase in overdose deaths involving benzodiazepines in the last 20 years.

This workshop is designed as a refresher course on benzodiazepines. It will cover the history of their development and use, the chemistry and pharmacology of the different drugs within this class, analytical approaches, and interpretation of findings in biological specimens. While the course will include introductory concepts for those new to the field, it will also be of use to the more experienced toxicologists looking to refresh their knowledge of this important class of drugs. By the end of the workshop, we’ll all be “smarties” about benzodiazepines.
**Learning Objectives**

1. Review the history of benzodiazepine use
2. Review the pharmacology of benzodiazepines
3. Review analysis for benzodiazepines and interpretation of results

**Faculty**

Marc A. LeBeau.
Senior Scientist
FBI Laboratory

Sarah Kerrigan
Department Chair
Sam Houston State University

Lionel Raymon
Becker Professional Education / Devry

Jeri Ropero-Miller
Chief Scientist
RTI International

Nikolas Lemos
Professor
UCSF - School of Medicine

Robert Middleberg
Laboratory Director
NMS Labs

Josef Witt-Doerring
MD
Janssen Pharmaceuticals / Drexel University College of Medicine

**Audience Knowledge Level**
Basic - suitable for individuals new to the field, requires little prior knowledge to the subject matter

**Workshop Agenda**
8:00-8:05 am: Welcome Remarks
   Jeri Ropero-Miller
8:05-8:30 am: History of Benzodiazepines / Medical and Recreational Use of Benzodiazepines
   Marc LeBeau
8:30-8:50 am: Chemistry of Benzodiazepines
   Sarah Kerrigan
8:50-9:30 am: Pharmacology of Benzodiazepines
   Lionel Raymon
10:00-10:30 am: Break
10:30-11:00 am: Analysis of Benzodiazepines
Nikolas Lemos
11:00-11:45 am: Interpretation of Benzodiazepine Results
Robert Middleberg
11:45-12:00 pm: Facilitated Discussion /Questions / Closing Remarks
Jeri Ropero-Miller/Panel