

OSAC RESEARCH NEEDS ASSESSMENT FORM



Title of research need: Emerging Drugs of Abuse and Therapeutic Agents
Keywords: Emerging, Novel, Drugs

R&D Need Rank:

Low, Medium, High

High

**SAC Approved
Date:**

6/4/2025

Submitting subcommittee(s):

Forensic Toxicology

Research Need Summary:

The purpose of these research needs is to build a stronger scientific foundation for forensic science standards. The information provided herein will help to evaluate and strengthen existing standards, and/or fill any standards related gaps. In the space below, please provide a brief narrative of the need to be addressed. This should include:

- The identity of any specific standards that would be affected/improved/evaluated
- A discussion on gaps that exist within the standards or standards related gaps that need to be filled
- How this work would fill those gaps
- An overview of any current or past research efforts that may be relevant to this effort
- A discussion regarding how this research might improve current laboratory capabilities and/or forensic services within the criminal justice system
- Any relevant references

Research is needed in the development of analytical methods for the identification and quantification of emerging drugs of abuse and new therapeutic agents to enhance the scope of capability and knowledge of the forensic toxicology community. Evaluation of existing and novel sample preparation techniques in the recovery of these analytes is also warranted. Research should also include epidemiological studies, metabolite identification, postmortem distribution studies, matrix studies, and pharmacodynamic/pharmacokinetic studies.

This research need has been identified by one or more subcommittees of OSAC and is being provided as an informational resource to the community.