# OSAC RESEARCH NEEDS ASSESSMENT FORM

**Title of research need:** Development of methods for monitoring levels of contamination of aids

**Keyword(s):** Contamination, training aid, canine

**Submitting subcommittee(s):** Dogs & Sensors     **Date Approved:** March 10, 2021

*(If SAC review identifies additional subcommittees, add them to the box above.)*

## Background Information:

1. Does this research need address a gap(s) in a current or planned standard? (ex.: Field identification system for on scene opioid detection and confirmation)

Research is needed to determine when training aids are contaminated and no longer of optimal quality for canine use and training. Needed in all standards planned and currently being worked on to better delineate proper training regimens.

2. Are you aware of any ongoing research that may address this research need that has not yet been published (e.g., research presented in conference proceedings, studies that you or a colleague have participated in but have yet to be published)?

No

3. Key bibliographic references relating to this research need: (ex.: Toll, L., Standifer, K. M., Massotte, D., eds. (2019). Current Topics in Opioid Research. Lausanne: Frontiers Media SA. doi: 10.3389/978-2-88963-180-3)

Lazarowski L, Krichbaum S, DeGreeff LE, Simon A, Singletary M, Angle C, Waggoner LP. (2020) Methodological considerations in canine olfactory detection research. Frontiers in Veterinary Science doi: 10.3389/fvets2020.00408

Furton KG, Myers LJ. (2001) The scientific foundation and efficacy of the use of canines as chemical detectors for explosives. Talanta. 54:487–500. doi: 10.1016/S0039-9140(00)00546-4

4. Review the annual operational/research needs published by the National Institute of Justice (NIJ) at https://nij.ojp.gov/topics/articles/forensic-science-research-and-development-technology-working-group-operational#latest?  Is your research need identified by NIJ?

No

5. In what ways would the research results improve current laboratory capabilities?

Research would result in improved understanding in how to train canines more effectively, safely, and efficiently by an enhanced knowledge of contamination interactions with target odors.

6. In what ways would the research results improve understanding of the scientific basis for the subcommittee(s)?

> The research would improve understanding of the subcommittee to be used in drafting standards related to training and certification. Provide canine handler a more positive outcome and reinforcement of K9 team.

7. In what ways would the research results improve services to the criminal justice system?

> The standards will result in improved detector canine operational performance as a result of an expected increase in more effective and efficient canine training.

8. Status assessment (I, II, III, or IV):     I

|  | **Major** gap in current knowledge | Minor gap in current knowledge |
|---|---|---|
| **No or limited** current research is being conducted | I | III |
| **Existing** current research is being conducted | II | IV |

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