



OSAC RESEARCH NEEDS ASSESSMENT FORM

Title of research need: Decontamination of Crime Scene Equipment

Keyword(s): Contaminants, DNA, Blood, Crime Scene Tools and Equipment, Decontamination

Submitting subcommittee(s): Crime Scene Investigation **Date Approved:** Sep.30,2016

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

Background Information:

1. Description of research need:

To develop an understanding of the possibility of contaminants being introduced to crime scene equipment during scene processing. What is the true threat of cross contamination between scenes? Does that threat vary between equipment? Finally, are our decontamination methods efficient in reducing that threat?

2. Key bibliographic references relating to this research need:

Crime Scene Investigation A Guide for Law Enforcement. (2013). NIST and NFSTC.
Carter D.O., Metcalf J.L., Bibat A. & Knight R. (2015). Seasonal variation of postmortem microbial communities. *Forensic Sci Med Pathol*, 11, 202-207.

3a. In what ways would the research results improve current laboratory capabilities?

Research in this area would help to identify what equipment poses a true versus a perceived contamination threat. If a true threat is identified, this research would help the community to choose the best decontamination method to minimize that threat. The better the product collected from the crime scene the better the end product will be after analysis in the lab.

3b. In what ways would the research results improve understanding of the scientific basis for the subcommittee(s)?

The experiments would show the true risk of contamination from scene to scene due to equipment. This evidentiary basis would help to decide best practices that are necessary to effectively yet efficiently deal with contaminants.

3c. In what ways would the research results improve services to the criminal justice system?

This research would help the crime scene community establish SOPs for best practices. Those SOPs could be referenced during testimony to support actions taken on scene.

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

	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.

Approvals:

Subcommittee Approval date:

(Approval is by majority vote of subcommittee. Once approved, forward to SAC.)

SAC

1. Does the SAC agree with the research need? Yes No

2. Does the SAC agree with the status assessment? Yes No

If no, what is the status assessment of the SAC:

Approval date:

(Approval is by majority vote of SAC. Once approved, forward to NIST for posting.)