



OSAC Research Needs Assessment Form

Title of research need: Effects of on-scene fatigue on Crime Scene Investigators

Keywords: Fatigue, physical fatigue, mental fatigue, diminished capacity

Submitting subcommittee(s): CSI **Date Approved:** 11/7/2018

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

Background information:

1. Description of research need:

Crime scene personnel are often required to work beyond their normal 8-hour shift, often in difficult physical conditions. No research is available as to the effects of fatigue on crime scene personnel effectiveness. In addition to the physical demands of crime scene duties, the mental stress related to the nature of the work may also have an impact on fatigue-related effects such as poor judgement and decision-making.

2. Key bibliographic references relating to this research need:

(2000) Tired Cops: The importance of managing police fatigue
Bryan Vila and Dennis Jay Kenney (2002) Tired Cops: The Prevalence and Potential Consequences of Police Fatigue. NCJRS
Barnes & Hollenbeck (2009) Sleep deprivation in decision making teams: burning the midnight oil and playing with fire. Academy of Management Review. Vol 34, No 1.

Many studies have been conducted by the transportation industry and medical community related to the effects of fatigue.

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

Understanding the cognitive and physical limitations of personnel will support quality workflow and output. The research results have the potential to impact crime scene management policy leading to more efficacious evidence identification and collection, impacting downstream laboratory analysis.

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

The research reinforces the notion that crime scene investigation is an essential component of the overall forensic science process. Quality scene processing affects laboratory analysis. The research results will provide a limit of detection as well as potential rates of error caused by fatigue.

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

By understanding how to mitigate the effects of fatigue on the judgement and effectiveness of crime scene personnel, the criminal justice system will be served by improved crime scene processing and work product that ultimately serves the trier of fact.

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

II

	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.

Subcommittee

Approval date: 11/7/2018

(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.)