

Title of research need: Reliability of Bitemark Analysis Methodology

Keywords: Bitemark, patterned injury, reliability

Submitting subcommittee(s): Odontology Date Approved: 8/24/16

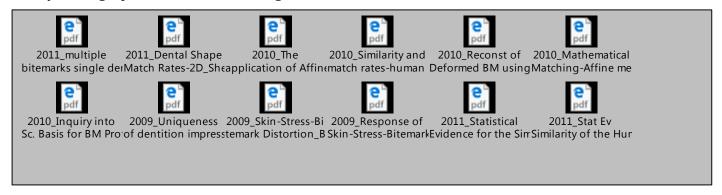
(If SAC review identifies additional subcommittees, add them to the box above.)

Background information:

1. Description of research need:

A foundational and critical need in the bitemark analysis discipline is validation of reliability of the methods used in current practice. A number of such studies have been done in the past, but several of these have been criticized as poorly designed and/or poorly executed. A re-assessment of several of these previous studies in this area is warranted in order to determine whether or not the conclusions were valid, as they form a core group of documents that are referred to often. Further research is needed in order to assess the reliability and validity of the methods currently used in the field, and to help identify new methods that might be used in the future.

2. Key bibliographic references relating to this research need:



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

This threshold research is needed to help provide the statistical foundation for the bitemark discipline, a foundation which is currently absent.

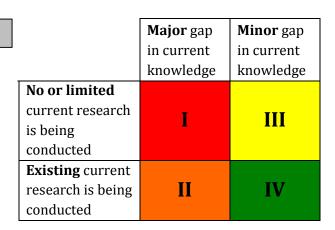
3b. In	what ways would the research results improve understanding of the scientific basis for the
subcommittee(s)?	

This is threshold research that is needed regarding the very foundation of bitemark analysis.

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

This research deals with the basic issue of reliability and credibility of proffered scientific evidence.

4. Status assessment (I, II, III, or 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:		
(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? Ye NO			
If no, wha	t is the status assessment of the SAC:		
Approval date:			
(Approval is by majority vote of SAC. Once approved, forward to NIST for posting.)			