OSAC Research Needs Assessment Form

Title of research need: Post Capture Imaging Processing

Keywords: Processing, enhance, photo, facial, image,

Submitting subcommittee(s): Facial Identification   **Date Approved:** 1/29/16
(If SAC review identifies additional subcommittees, add them to the box above.)

Background information:

1. Description of research need:

Best practices and scientifically validated techniques to improve facial image quality for biometrics and forensics.

2. Key bibliographic references relating to this research need:

1. Forensic Photoshop a comprehensive imaging workflow for forensic professionals by Jim Hoerricks.

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

Facial analysis efficiencies, accuracy and consistencies will be improved by knowing what types of tools and techniques available yields better results.

Scientifically validated techniques to improve image quality for biometrics and forensics would improve laboratory capabilities because of the potential to provide examiners with materials that would enable them to strengthen their analysis, comparisons, and conclusions.
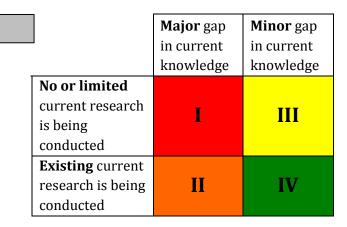
3b. In what ways would the research results improve understanding of the scientific basis for the subcommittee(s)?

> At present there is not specific facial examination scientific validation of the techniques currently used.

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

> Will provide scientifically validated methods which are expected to improve the accuracy of results supporting forensic evidence to the legal justice system.

4. 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.

| Subcommittee | Approval date: | 1/29/16 |

(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: 6/15/16

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