Title of research need: Validation of the “Physical Stability of Facial Features of Adults” document

Describe the need: The absence of a literature review of relevant studies [scientific, medical, academic, and professional] regarding the physical stability of the facial features of adults detailed within the current Physical Stability of Facial Features of Adults document represents a research gap.
A related gap exists in that, once relevant research is identified, there will be a need to translate those research findings into language appropriate for inclusion into subsequent editions of “Physical Stability of Facial Features” standards documents (e.g., language appropriate for an analyst’s use, rather than a medical professional).

Keyword(s): Facial Features, Physical Stability, Aging

Submitting subcommittee(s): Facial Identification  Date Approved: February 26, 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)
Yes. As stated in the Physical Stability of Facial Features of Adults (and the STRP report on the document), this is a current gap in this standard.

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.

To be developed by researchers after consultation with the subcommittee - this gap calls for references to be identified.

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?

The research would provide a scientific foundation on which to base informed conclusions by facial comparison experts using the Physical Stability of Facial Features of Adults document. It would also be a valuable addition to training programs for facial image examiners, which stands to improve their overall efficiency and accuracy.

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

This research would validate or refute the opinions of the authors of the Physical Stability of Facial Features of Adults document, provide reference documentation, and allow for appropriate revisions based on scientific data.

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

This research would add accuracy, objectivity, and validity to expert testimony in the field of facial identification.

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

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<tr>
<th>Major gap in current knowledge</th>
<th>Minor gap in current knowledge</th>
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<tr>
<td><strong>No or limited</strong> current research is being conducted</td>
<td>I</td>
</tr>
<tr>
<td><strong>Existing</strong> current research is being conducted</td>
<td>II</td>
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This research need has been identified by one or more subcommittees of OSAC and is being provided as an informational resource to the community.