OSAC Research Needs Assessment Form

Title of research need: **Phenotyping Of Tooth Shape and Tooth Color**

Keywords: Phenotyping, human identification

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:

Additional objective techniques for identifying human remains

2. Key bibliographic references relating to this research need:

Kieser JA. Human adult odontometrics. Cambridge: Cambridge University Press; 1990
Hillson S. Dental anthropology. Cambridge: Cambridge University Press; 1996
Demirjian A. Dentition. In: Falkner F, Tanner JM, editors. Human growth, 2 postnatal growths. New York: Plenum Press; 1978. p. 413–4
Tucker AS, Sharpe PT. Molecular genetics of tooth morpho-genesis and patterning; the right shape in the right place. J DentRes. 1999;78:826–34.

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

Increased accuracy

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

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

Used as an additional identification method for unidentified human remains

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.

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.)