## G51 Current Trends in Forensic Odontology Research Nearly 30 Years Later

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The goal of this presentation is to augment previous forensic research and indicate areas of limitations as well as aid in the development and improvisation of research and training facilities, including those in dental and dental hygiene schools.

This presentation will impact the forensic science community by promoting discussion concerning areas of deficiency in various fields of forensic odontology which may expose the need for more in-depth and advanced research in order for this field to continue to be a respectable, justifiable, and reliable scientific process in the medicolegal system.

Forensic odontology involves a science that is interwoven with the medicolegal system. The American Board of Forensic Odontology (ABFO) by itself conducts annual workshops in dental identification, civil litigation, age estimation, and bitemark analysis.

Deoxyribonucleic Acid (DNA) analysis methods, which are basically DNA profile tests in forensic dentistry that offer a new perspective in human identification, are a current research trend that is gaining widespread recognition. These tests are known to be highly reliable and are well documented as acceptable legal proofs in the judicial system. Bitemark analysis is still a highly controversial topic but newer trends in research could indicate a favorable use of this analysis as a scientific and reliable method.

This research study is based on a similar study done by Katz and Cottone in 1988 where current trends in forensic odontology were researched over a seven-year period (1980-1987).[1]

**Objective:** The goal of this study is to review research presented in forensic odontology from the annual meeting of the American Academy of Forensic Sciences (AAFS) in the past ten years. An update on how forensic odontology research has evolved, including the introduction and efficiency of DNA analysis in the last decade, will be identified and discussed. A study in these areas will augment previous research and indicate areas of limitation as well as aid in the development and improvisation of research and training facilities, including those in dental and dental hygiene schools.

**Method:** Abstracts from 2004-2014 presented during the annual meetings of the Odontology Section of the AAFS were reviewed to determine the direction of forensic odontology research. The categories were based on the type of presentation which included literature reviews, case reports, newer techniques, research, and education. The topics of the presentation will include mass disaster, bitemarks, human identification, child abuse, legal issues, photography, and other miscellaneous areas.

**Conclusion:** The premise of this study will be to ensure that areas of deficiency in various fields of forensic odontology may expose the need for more in-depth and advanced research in order for this field to continue to be a respectable, justifiable, and reliable scientific process in the medicolegal system. The information obtained in this study would benefit a range of professionals from forensic odontologists, medical examiners, detectives, profilers, emergency room personnel, and coroners to law enforcement officials and social services.

**Reference:**

1. Katz JO, Cottone JA., "The present direction of research in forensic odontology," Journal of Forensic Sciences 1988 Nov;33(6):1319-27.

**Forensic Odontology, Research, AAFS Abstracts**