



### D70 From Abstract to Publication: The Fate of Research Presented at an Annual Forensic Meeting

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After attending this presentation, attendees will have a better understanding of the fate of abstracts presented at forensic meetings and good predictive factors of publication.

This presentation will impact the forensic science community by emphasizing that publication in a peer-review journal remains the ultimate corroboration of research results.

**Introduction:** Abstracts presented at scientific meetings is a valuable way of conveying state-of-the-art knowledge and promising techniques, but publication in a peer-review journal remains the ultimate corroboration of research results. Indeed, peer-reviewed publications allow a more rigorous evaluation of the design, methods, results, and conclusions of a paper than abstract acceptance, since conference scientific committees decide on abstract acceptance or refusal based on limited information contained in the abstract itself. A possible measurement of the quality of abstracts presented in scientific meetings is the abstract to publication ratio, representing the proportion of abstracts published in peer-reviewed journals. This ratio has been studied for several international meetings, ranging from 8.5% to 78%. In forensic sciences, the fate of abstracts presented at international meetings has not yet been evaluated.

**Material and Methods:** All abstracts of published for the 2006 AAFS Annual Scientific Meeting in Seattle were searched in the PubMed database of the National Library of Medicine for subsequent corresponding published paper in peer-reviewed journals. Papers found on PubMed were closely compared to the proceeding abstracts to confirm correspondence of both. Furthermore, abstracts from three sections of the AAFS meeting, namely engineering sciences, jurisprudence, and questioned documents, were also searched through the FORS Forensic Bibliographic Database. Finally, for all published and unpublished abstracts, the following variables were compiled: section of the meeting, type of presentation (oral/platform or poster), number of authors per abstract and per paper, time span to publication, countries involved, and journal of publication.

**Results:** For the 58<sup>th</sup> Annual Scientific Meeting, 623 abstracts were presented at the meeting, from which 102 were subsequently published as a full paper in a peer-review journal. The majority of those papers were published in the meeting's official journal, the Journal of Forensic Sciences (64.7%).

**Publication ratio:** The overall publication rate was of 16.4%, ranging from 3.4% (for the Jurisprudence Section) to 28.8% (for the Toxicology Section). Although Criminalistics ranked second considering the publication rate (21.8%), in absolute numbers, it published more papers than all other sections (38 papers).

**Type of presentation:** In general, oral presentations were more likely to be later published than poster presentations, with respective publication ratios of 17.2% and 14.6%. However, this difference was not statistically significant ( $p = 0.4219$ ). The only exception appeared in the Physical Anthropology section, with a statistically significant difference for the publication ratios of oral (18.9%) and poster (3.2%) presentations.

**Number of authors:** Overall, the average number of authors per abstract was of 2.9. This number of authors per abstract was higher for published abstracts (3.7) compared to unpublished ones (2.7). This difference was statistically significant ( $p = 0.0001$ ).

**Time span to publication:** The time span to publication averaged 10 ± 9 months. Among the published articles, 13% were published before the AAFS conference, 52% were published within a year and 75% within 1.5 years.

**Countries involved and International collaboration:** As expected, American authors outnumbered foreigners at this American meeting (USA 76%, other countries 20%, and international collaboration 4%). Publication ratio; however, was highest for abstracts written in international collaboration (37%), followed by abstracts from non-USA authors (21%), whereas U.S. authors presented the lowest publication rate (14%). Statistical analysis revealed a strong association between the geographical source and the publication ratio ( $p = 0.0021$ ; non-USA vs. USA  $p = 0.0538$ , international collaboration vs. USA  $p = 0.0012$ ).

**Conclusion:** Forensic scientists are encouraged to publish their findings since abstracts that fail to attain subsequent publication remain valueless in forensic sciences, their data being hardly accessible and of dubious validity due to lack of rigorous peer-review. Since good predictors of publication are a higher number of authors and international collaboration, authors are incited to work in teams, locally and internationally, in order to increase the productivity of research. Research teams must be careful however to avoid gift authorship.

#### Bibliometry, Meeting Abstracts, Publication Ratio