

Editorial

Protecting Our Science

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In response to a recent court decision, the *Annals of Occupational Hygiene* is reviewing our procedures to ensure transparency in authorship and direct and indirect conflicts of interest. These improvements are intended to help protect the integrity of the science presented in the journal.

On 6 June 2013, a court in New York City handed down a decision that calls into question the validity of research that was sponsored by Georgia Pacific (GP) Corporation ([In re New York City Asbestos Litigation](#)) and published in eight peer-reviewed articles, including two papers published in the *Annals of Occupational Hygiene* ([Sheehan et al., 2011](#); [Berman et al., 2012](#)). While the court did not determine that any fraud had occurred in the process of producing these papers, it did state that the research had been conducted under the auspices of the corporation's counsel and that the counsel, who was not listed as an author, was 'significantly involved in the prepublication review process'. Further, the court stated that GP had commissioned the program of studies on risks associated with chrysotile in drywall work with the intent to 'cast doubt on the capability of chrysotile asbestos to cause cancer' and that the sponsors intended, in due time, to introduce the evidence into litigation. Although the two papers in the *Annals* did not directly address the carcinogenicity of chrysotile, the subject addressed—reconstruction of potential exposures during sanding and sweeping of drywall joint compound containing asbestos—has obvious relevance to the risks associated with such activities.

While these revelations do not in any way prove that the data used in the two *Annals* papers were fraudulent or that the authors' conclusions were not legitimately based on the data, they do challenge the principles of free and open scientific inquiry. The court suggests that the research was sponsored with a particular outcome in mind and that the sponsor of the research, without attribution, had significant input to the conduct and reporting of the results. While the *Annals* cannot take responsibility for the conduct of the research, we do have a responsibility to ensure that authors are fully transparent in revealing any potential conflicts of interest that did or may have appeared to have influenced the reporting of results and that authorship of the papers is legitimately ascribed.

Our current conflict of interest policy asks submitting authors to identify the sponsorship of the research, and to attest to any conflicts on behalf of all authors, or to have each author submit an appropriate statement. I am happy to say that the research sponsorship by GP was clearly acknowledged in the two papers. The authors also stated on these papers that GP 'has been involved in litigation' on the subject. Further, employment of one of the authors by GP is clearly stated. Thus, in evaluating the research reported, readers are able to weigh the potential influence of the conflicted sponsorship of the research. However, the court's revelations do raise more generally the question of the adequacy of our current policies on authorship and

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the complete transparency with regard to potential conflicts of interest.

The Committee on Publication Ethics (COPE, 2003) and the International Committee of Medical Journal Editors (ICMJE, 2010) provide substantial guidance on authorship and this is reflected in the *Annals'* instructions to authors and in a related editorial (Ogden, 2007). Individuals who make substantial intellectual contributions to the work, in the design and execution of the research, in writing or revising the paper, AND in approving the final version, should be an author. Those making smaller contributions, or contributions to some but not all of these criteria, should be acknowledged for their contribution. Although it has been pointed out that these criteria can be used, especially in the publication of pharmaceutical trials research, to avoid acknowledgement of industry involvement in research planning and interpretation (Matheson, 2011), these guidelines help insure that all signing authors must make substantial contributions to the research and endorse the final product as complete and truthful.

The COPE guidelines for authorship further indicate, 'Authors should disclose the role of the research funder(s) or sponsor (if any) in the research design, execution, analysis, interpretation and reporting', and researchers should avoid ghost authorship, defined as those who meet authorship criteria but are not listed (Wager and Kleinert, 2011, sections 5.2 and 6.3). This was apparently not done in the GP research, according to the court decision; the sponsor apparently reviewed and possibly edited the articles without acknowledgment. The distinction between substantial involvement in the research and prepublication review is difficult to discern. Many research sponsors request or require the opportunity to review articles prior to publication in order to identify any factual errors, to control the release of commercially sensitive information (e.g. trade secrets), and to understand how the release of data may affect their interests prior to public release. Most researchers and academic institutions are willing to provide for such review, as long as they retain full editorial control over the research presentation. However, providing for transparency in this review process is a responsibility of the journal publishing the work.

A further challenge in revealing potential conflicts of interest is in ensuring that in addition to direct sponsorship of research, indirect financial or social incentives that could bias the conduct and reporting of research are fully described. The ICMJE guidelines require authors to identify

payments made to themselves or their institutions for any aspect of the reported research. Such payment would be considered direct support. In addition, it requests that all authors reveal any support (financial or non-financial) received within the 3 years prior to submission from any entity with an interest in the outcome of the research. Such entities could include companies, trade associations, labor or public interest groups, or product defense or liability legal groups. The latter case is particularly relevant to the *Annals*. We have received papers by consulting firm employees stating that no direct support for the work was received by the author, even though their firm has a consulting relationship with the affected industry. While perhaps not factually incorrect, the statement is an inadequate representation of the potential conflicts for these authors.

It has become clear through reviewing the GP decision that although the *Annals of Occupational Hygiene* has had reasonable requirements in place for ethical publication, authorship, and conflicts of interest transparency, our procedures should be strengthened in order to fully reveal any direct or indirect conflicts of interest in the production of papers published in the *Annals*. Although our current guidelines are consistent with good publishing practice, they may not adequately ensure proper attribution of authorship or reveal the full extent of potential conflicts of interest in the manuscripts we publish. As a result, we are developing a more thorough procedure for addressing potential conflicts.

First, we are asking reviewers to reveal any potential conflicts of interest that they may have when accepting our invitation to review a submitted manuscript. While many potential reviewers will decline a review if a potential conflict is present, we have not up to now explicitly asked for this information. Second, we are introducing a questionnaire to be filled out by the authors of a manuscript at the time of submission that explicitly asks for disclosure of both direct and indirect potential conflicts of interest and their role in authorship of the work. We will further seek information about individuals who have contributed to the research who may not have been identified as an author or in the acknowledgements. Finally, we will monitor the results of the litigation involving the GP research. If the court finds evidence of fraud in the production of the research reported in our pages, we will act on these findings in accord with the COPE guidelines for ethical publication.

Clearly, the science presented in the *Annals of Occupational Hygiene* has a significant impact on the lives and health of many individuals, as evidenced by the continuing attempt to use our pages for legal and commercial interest. The editors have responsibility and therefore retain the right to consider potential conflicts of interest in our decision to publish, or not, a specific piece of research. Clear and complete transparency is necessary to fulfill this roll. We will continue to publish the best science we can.

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