



Editorial

Ghosts in the *Annals*: Boo!

As the senior editors for the *Annals*, we believe that our fundamental responsibility to you, the reader, is to provide a high-quality, interesting, relevant journal covering all aspects of our discipline. We are joined in this effort by an outstanding group of Associate editors, editorial board members, and ad hoc peer reviewers. It is our collective job to ensure that what we agree to publish in the *Annals* is as objective and free of bias as possible. Knowing that a totally unbiased work is almost impossible to achieve (we all have different opinions and perspectives), we try to manage this enigma with 1 simple principle—transparency. It is the right of all *Annals* readers to know that opinions are clearly labeled as such, and conflicts (real or potential) are disclosed. This brings us to the idea of ghost-written articles—does it really matter?

The *Annals* has had, and continues to have, a firm policy on ghost-written articles—we do not want them in our journal. We define ghost-writing as a manuscript written wholly or in substantial part (greater than 20%) by an unidentified person. Most commonly, ghost-written manuscripts originate from multisite, pharmaceutical industry-sponsored studies in which a scientific writer is hired to write the first draft of the paper, which is subsequently circulated for comment and revision among listed authors before being submitted to a journal for peer review and publication. However, this practice is not always limited to industry—in fact, any situation in which a third party (usually a professional writer) is used to write the manuscript (but is not listed as an author) constitutes ghost writing.

Why should it matter who is listed as an author? Both of us have had some spirited discussions with the listed authors (and occasionally sponsor representatives) on these manuscripts, in which they tell us they do not have adequate time to write first drafts of the manuscripts or they lack data management or biostatistical resources to write the papers themselves. The listed authors constitute a “writing group” who met multiple times with the professional writer and provided substantial revisions to the original manuscript. However, most authors who have done both will agree that there is a different level of ownership between revising what someone else has written and writing it (the original draft) yourself.

Most readers judge the message of the article, at least in part, from the listed authors who typically are assumed to have participated in the study. The first author is generally accepted to be the one who did most of the work or (in the case of a multicenter trial) wrote the initial draft of the manuscript. However, in ghost-written papers this is not the case. The lack of disclosure about the use of a professional writer (and the funds supporting him or her) impairs the ability of the reader to judge potential biases in the presentation of the data. It is not particularly pleasant to ponder, but multiple

studies have documented that industry-sponsored manuscripts for studies of a particular therapy are far more likely to show a positive result for that therapy than non-industry-sponsored (and written) studies of the same therapy.^{1,2} This is not to accuse industry scientists and officials of purposeful deceit—these men and women are typically quality colleagues with honesty and integrity in their approach to their work. However, all of us who believe in what we write about tend to see our data in the most positive light that we can, and often use statistical methodology (which is far from an exact science) to support that belief. As long as we are open about whose thoughts these represent (ie, disclosure and transparency), the readers can judge for themselves when to accept and when to question presented data.

Although authors listed in a ghost-written manuscript usually were involved in the study and have read and contributed to the revision of the manuscript, this is not always the case. In some situations, academic experts are recruited as guest authors simply for the credibility their names bring.

Listing authors that have only revised a first draft is insufficient protection from ghost writing. As anyone who has revised someone else's work knows, the revisions are focused on the original writing. Therefore, the (intended or unintended) bias is not lost in the revision process. In fact, quite possibly the authors performing the revision are not even aware of the biases. This is especially a problem when the original data are not provided to the authors. Really differentiating valid statistical analyses when only finalized graphs and tables (with *P* values listed) are provided to the authors in the initial draft is very difficult. Typically, listed authors of these types of manuscripts acknowledge that they have never seen aggregated raw data and that the only summary data they have seen are in these prepared figures and graphs. In most cases the data are likely to be accurate, but the presentation bias still remains.

One of us (G.D.M.) was recently approached several times at a recent international meeting and asked “Why won't the *Annals* accept manuscripts from industry?” It is inaccurate to even suggest that the *Annals* will not consider manuscripts based on industry-sponsored studies. We do not want to discourage manuscripts from industry (or from other sources that use professional writers), but we insist on transparency. Our authors' guidelines delineate the requirements for authorship in the *Annals*: collectively, the authors must “have written at least 90% of the manuscript” and fulfill at least 3 of 4 criteria (conception/design of study; data generation; analysis/interpretation; or preparation/“critical revision” of the manuscript).³ In a ghost-written paper, the initial requirement is not met, because the unnamed ghost-writer has done most of the writing. Therefore, the easiest way to avoid ghost writing is simply to list the authors that were involved, in appropriate order. In many cases, the first author would be the professional writer who penned the first draft. This would allow the manuscript readers to judge for

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themselves whether any significant bias is present, because the person, their affiliation, and funding sources would be disclosed. It would also help editors determine whether issues of bias are present, as well (The *Annals* peer-review system is double-blind, so reviewers do not have access to author names and have no way of determining whether a manuscript is ghost written or not). This solution has been offered to multiple authors and industry officials. To our knowledge, no one has used this transparency method to manage bias. To be clear: The *Annals* does not ban articles written by professional writers on behalf of others; we ban those manuscripts in which that professional writer is not listed as an author.

Keeping the biomedical scientific literature credible and truthful is a critical responsibility for medical journal editors. The International Committee of Medical Journal Editors and the World Association of Medical Editors take this responsibility very seriously and have published guidelines on how to deal with this difficult problem.^{4,5} We believe prohibiting ghost writing in the *Annals* is helping to achieve this aim. For those who choose to violate authorship policies and submit ghost-written articles, a number of potential sanctions have been proposed by medical journals.⁶ These have ranged from banning all of the authors on the manuscript from ever publishing in the journal up to legal action for fraud. We hope that by providing our readers (and authors) a more detailed explanation of what the *Annals* expects we will avoid the danger of ghost-written articles and will continue to represent a trustworthy source of new and exciting clinical findings and research in all aspects of allergy and immunology.

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